



**Self-Concept and Self-Esteem in
Developmental Dyslexia:
Implications for Teaching and
Learning**

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**A thesis submitted in partial fulfilment of
the requirements of Liverpool John Moores
University for the degree of Doctor of
Philosophy**

May 2001

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PhD 2001

Abstract

The current research investigated self-concept and self-esteem in 63 children with dyslexia. Participants were drawn from mainstream classes and specific learning difficulties units in primary and secondary schools across Merseyside. Interviews, questionnaires, inventories and personal construct grids were used to measure self-concept and self-esteem, giving a mix of qualitative and quantitative data. Where appropriate, a control group of 57 children without learning difficulties, drawn from the same schools as the dyslexic participants, was assimilated into the research design. The researcher was primarily interested in the possibility of deficits in the self-concepts and self-esteem levels of children as a consequence of having dyslexia. Also of concern were the domain specificity of such deficits (i.e. global or specific), and the effect of school placement (i.e. mainstream or specific learning difficulties units) on self-concept and self-esteem.

Results were evaluated and, where appropriate, subjected to statistical analysis. The main findings were that the presence of dyslexia produced marked effects on the self-concept and self-esteem of children, although this was more apparent in the participants attending mainstream schools than in those attending specific learning difficulties units. The deficits in self-concept and self-esteem were shown to be both global *and* specific in nature (this dovetailed with the current researcher's conceptualisation of the self as multi-dimensional and hierarchical). The qualitative data revealed that children with dyslexia felt isolated and excluded in their schools, and that, typically, up to half were regularly bullied or teased as a consequence of their difficulties.

The implications of the research findings were divided into possibilities for intervention, and possibilities for prevention. In terms of intervention, the findings were related to self-concept and self-esteem enhancement programmes, changing the roles played by teachers and peers, and attributional training. In terms of prevention, the findings were related to early identification of dyslexia, school climate and the 'dyslexia-friendly' school, awareness of and provision for dyslexia, and inclusive education at cultural, policy and practice levels.

Acknowledgements

To all my family and friends for their support and belief in me, I thank you. To my colleagues, in particular Pat, Bob, Martin, Dave, Jenny, Andrea, and everyone else who helped me to create this thesis, I thank you. Finally, to all the schools who agreed to take part in the research, I am forever in your debt.

Dedicated to the memory of Michael Humphrey (1949-1998), Thomas Pasque (1925-1999) and Ella Humphrey (1918-1994):

“Wherever I go, whatever I do...”

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Foreword

As an undergraduate psychology student at Liverpool University, I was fortunate enough to be able to undertake several modules and projects related to special educational needs, a personal interest that had grown from contact with the child of a family friend who was suffering from autism, and had severe learning difficulties. Early in my degree course, I jumped at the chance to complete a work placement with an educational psychology unit in Oldham, and my career goals were set: I was to become an educational psychologist. However, I had some difficulty in applying for graduate teacher training (my degree was not in a National Curriculum subject), a prerequisite for entry to educational psychology, and decided that research would be a worthwhile alternative pursuit. Hence, I joined Liverpool John Moores University as a research student.

In deciding on the focus of my research, I was confronted with two realistic choices: autism or dyslexia. I had completed a final year dissertation and research project (respectively) in those topics, and my studies had both revealed areas neglected by previous research. In the end, I opted for dyslexia, and, specifically, its effects on the developing self-perceptions of children. The area is notable for the almost complete lack of published research (only a handful of articles have specifically addressed the problem), despite its importance, and despite the mass of anecdotal evidence from teachers and practitioners.

A pivotal book (and one that would provide a basis for some of my research questions) was Riddick's (1996) *Living with Dyslexia*. The author describes research which investigates the psychological effects of dyslexia, but concentrates on the broader social and emotional consequences of the learning difficulty. It provided me with a basis for my research, and I was able to develop ideas about questions which I wanted to ask (in both a literal and philosophical sense). I then went on to seek as many self-perception measurement tools as I could find, in order to select those which were the most valid for my purposes.

The study of self-perceptions is a prominent feature of psychological, sociological and educational research, and there was an abundance of articles and instruments

available, among the most useful of which were Marsh's (1990) *Self Description Questionnaire* and Gurney's (1988) *Self-Esteem in Children with Special Educational Needs*. The former provided the most widely validated research instrument of the project, and the latter provided a model of self-esteem development through which results could be interpreted.

The pilot study was conducted in January – March 1999, using a small sample of children from a specific learning difficulties unit in Sefton. I am grateful to my supervisor for providing me with the initial contacts I needed to begin the research. Following the pilot, several refinements were made, before further contacts were made and the sample population expanded to include over 60 children. The main bulk of the research was carried out from April 1999 to May 2000, in schools in Sefton and Wirral LEAs, in both mainstream and specific learning difficulties unit classes.

Although the main focus of the research is a theoretical one (in so far as it addresses the relationship between learning difficulty and self-perception), the emphasis of the later sections of the thesis are on practical possibilities, and the implications of the study will, it is hoped, be extended beyond children with dyslexia (although there are aspects of the difficulty experienced by these children which are obviously exclusive, and hence produce exclusive effects on their self-perception).

In conducting the research that follows and creating this thesis, I felt that it was important to have specific and concrete aims. This not only influenced the way in which the research was conducted, but also the style and content of the reporting. The research was aimed specifically at investigating whether having dyslexia produced deficits in the self-concept and self-esteem of individuals. Within this broad aim, several objectives were set, including investigating whether these possible deficits were global or specific, and whether there was a quantifiable difference in the self-concept and self-esteem of children with dyslexia in mainstream classes, and those in specific learning difficulties units.

1

Dyslexia

1.1 Dyslexia Defined

How does one begin to define such a complex learning difficulty as dyslexia? There are a number of sources of confusion, not least the fact that no two cases of dyslexia present exactly the same symptoms. Dyslexia has many faces (Rawson, 1986). Young and Tyre suggest that “much of the controversy and confusion over the use of the word dyslexia when applied to children’s difficulties has arisen because people expect it to be precise, specific and scientific, which it certainly is not” (1983, p.10). Also, there is contention over the correctness of terms. Is ‘dyslexia’ an inappropriate label? Should we refer to the children as having a ‘specific learning difficulty’ instead? The British Dyslexia Association (1998) suggest that both terms can be used safely, as long as the child in question receives a clear explanation. Whichever term is used, definition becomes no easier. In this text, ‘dyslexia’ will be used primarily, since:

“[it] implies vastly more than a delay in learning to read, which is but the tip of the iceberg. The etymology of the term ‘dyslexia’ expresses admirably a difficulty – not in reading – but in the use of words, how they are identified, what they signify, how they are handled in combination, how they are pronounced and how they are spelt” (Critchley, 1981, p.2).

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At the very simplest of levels, dyslexia is understood as “an unexpected difficulty in learning to read, write and spell” (Riddick, 1996, p.1). However, even in this simple sense, there is an immediate myriad of problems and ambiguities. Who decides that the problem is unexpected, and on what basis? How far behind does the child have to be before the term ‘difficulty’ applies, and how is this measured? The list continues.

Frith (1992) has suggested that in defining learning difficulties such as autism and dyslexia, we need to examine the links between cause, cognition and behaviour. A definition that has been widely used exhibits these aspects:

“Dyslexia is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.” (World Federation of Neurology, 1968, cited in Riddick, 1996, p.2)

Again, however, there are a number of problems with this definition. Firstly, although dyslexia is traditionally associated with difficulty in *reading*, there are children for whom spelling and writing (and, indeed, other areas) present the greater challenge. Also, why exclude children from diagnosis on the basis of inadequate intelligence or sociocultural opportunity? Riddick (1996) suggests that the cognitive impairments underlying dyslexia are evenly spread across the population and are as likely to occur in dyslexic groups as in any other groups (there is also the problem of deciding what constitutes ‘adequate’ sociocultural opportunity!). The emphasis on levels of intelligence and sociocultural opportunity led some critics to label dyslexia as a ‘middle class disorder’ or “a self created condition” (Davis, 1997, p.9), and this highlights a problem with these so-called ‘exit model’ definitions. Such definitions place their emphasis on who *can’t* be dyslexic, (i.e. ‘children who have low intelligence *can’t be dyslexic*’) rather than who *could be*. Deconstructing the World Federation of Neurology definition in this way, once we have excluded children with low intelligence or poor sociocultural opportunity, all we have left is middle-class children (hence the criticism!). As we shall see, recent educational thinking has moved on to more *inclusive* methods of definition. Meanwhile, the ‘middle class disorder’ criticism has not been upheld (Riddick, 1996).

Every practitioner probably has his/her own definition of what dyslexia is. Certainly, almost every article or book on the subject provides a fresh perspective, and yet each is limited, usually because it excludes a crucial feature of the difficulty. Some examples are shown in Table 1:

Author (s)	Year	Definition
Naidoo, S.	1972	“An inability to read normally as a result of a dysfunction in the brain” (p.15)
Young, P. & Tyre, C.	1983	“A dyslexic person is one who has a specific language disability affecting spelling, reading and other language skills characterised by a discrepancy between his mental potential and his educational level despite conventional classroom instruction and despite absence of any primary emotional trouble or adverse environmental condition” (p.11)
Critchley, M. & Critchley, E.	1978	“A disorder of children who, despite conventional classroom experience, fail to attain the language skills of reading, writing and spelling commensurate with their intellectual abilities” (p.7)
Thomson, M.	1984	“Developmental dyslexia is a severe difficulty with the written form of language independent of intellectual, cultural and emotional causation. It is characterised by the individual’s reading, writing and spelling attainments being well below the level expected based on intelligence and chronological age. The difficulty is a cognitive one, affecting those language skills associated with the written form, particularly visual to verbal coding, short term memory, order perception and sequencing” (p.3)
Pollock, J. & Walker, E.	1994	“The term dyslexia... refers to difficulty with words read, words, spelt, words pronounced, words written and association of meanings with words... [and should be] seen as a different learning ability rather than as a disability... resulting in the child’s failure to gain competence in literacy” (p.xiii)

Table 1. Common definitions of ‘dyslexia’.

Is it possible to generate a definition of dyslexia that everyone can agree on? Probably not. Is it possible to generate a definition of dyslexia that does not exclude in some way a child who is dyslexic? Probably not. What then, can we possibly use as a starting point? The following definition, from the British Dyslexia Association's (1998) *Dyslexia Handbook*, is as close to a universally acceptable working definition as the current author has come across:

“Dyslexia is a complex neurological condition which is constitutional in origin. The symptoms may affect many areas of learning and function, and may be described as a specific difficulty in reading, spelling and written language. One or more of these areas may be affected. Numeracy, notational skills (music), motor function and organisational skills may also be involved. However, it is particularly related to mastering written language, although spoken language may be affected to some degree”
(BDA, 1998, p.48)

This definition is useful for several reasons. Firstly, it acknowledges the cause of the difficulty. Secondly, it identifies the *most common* areas of difficulty. It also identifies other *possible* problems associated with the condition. Dyslexia is seen as a grid of overlapping difficulties, within which any affected child can potentially display a unique combination of difficulties. The more difficulties shown, the greater chance there is that the child will be dyslexic. This reflects an intuitive logic. We know dyslexia is caused by a function of wiring in the brain, and is probably genetic in origin (see 1.3). We also know that in executing the skills required in reading, writing and spelling, there is no single corresponding ‘master’ location in the brain. Several areas come into use, and there is a great degree of overlap with other functions (BDA, 1998). This ‘overlap’ helps us to explain the links that have been found between dyslexia and other specific difficulties, such as Asperger’s syndrome (Jordan & Powell, 1995). Thus, whilst there are common areas of difficulty, the nature of the condition dictates that any number of ‘secondary’ areas may be affected by dyslexia. For example, one early screening test uses stability and sound differentiation as diagnostic tools (Nicholson & Fawcett, 1994).

1.2 A History of Dyslexia

Dyslexia as a recognised learning difficulty is approximately 100 years old. Although there were undoubtedly children with dyslexia before this, they have only been recognised as such since the turn of the century marked the beginning of the universal literacy movement (Ellis, 1993). However, the genesis of ideas that would contribute to early notions of dyslexia began nearly 200 years ago, with the work of Franz Joseph Gall, who was one of the first to argue that different portions of the brain had specific functions and performed specific tasks (localisation of function) (Miles & Miles, 1999). Throughout the following century, neurologists such as Pierre Broca and John Hughlings Jackson reported cases of aphasic patients, whose brain injuries had resulted in difficulties in the understanding and production of speech ('aphasia' means 'not speaking'). In 1878, Kussmaul (building on the work of Broca) introduced the concept of 'word blindness' to describe brain injured patients who, despite having normal intelligence and normal visual perception, were unable to read printing and writing. They could copy text, and differentiate between letters, but were unable to translate this into speech or thoughts (Miles & Miles, 1999).

What relevance do these acquired difficulties have for developmental dyslexia? Firstly, they gave the initial clues as to hemispheric function (a concept that is important to our understanding of the anatomical basis for language). Secondly, information about acquired difficulties led Dr. Pringle Morgan to recount the first published case of developmental dyslexia (or, as he called it, 'congenital word blindness') (Morgan, 1896). In his article, Morgan described a boy who, despite adequate intelligence (and no apparent brain trauma), was unable to master the skills involved in reading. James Hinshelwood (1917) reported similar cases, noting the possibility of heredity as a factor, and also that the difficulty seemed to affect more boys than it did girls. These ideas were extremely important, and are present in our modern notion of developmental dyslexia. However, Hinshelwood made a mistake in assuming that the symptoms shown in congenital word blindness were caused by damage to a "visual word centre" (Hinshelwood, 1917, p.19) in the brain, an idea he also proposed as the cause of acquired word blindness.

Hinshelwood's 'visual word centre' hypothesis was soon brought into question, mainly through the work of Fildes (1921), whose experimental work with poor readers exposed it as implausible. However, several strands of Hinshelwood's hypothesis were developed by the American neurologist Samuel Orton. Like Hinshelwood, Orton believed that developmental language disorders could be understood by looking at acquired language disorders. He thought that the problems shown had a physiological origin, that heredity was a factor, and also that boys were affected more so than girls (Miles & Miles, 1999). However, he rejected the notion of a visual word centre, seeing the disorder as the consequence of abnormal physiological development. Further, he found the term 'congenital word blindness' unhelpful and misleading, claiming that it laid too much emphasis on inherent difficulty and not enough on environmental factors, and instead opted for 'strephosymbolia' (meaning, 'twisting of symbols'). Importantly, Orton described several features which have become the hallmark of dyslexia, including letter confusion (i.e. 'b' for 'd') and ordering difficulties (i.e. 'enemy' read as 'emeny').

Later pioneers such as Hermann (1959) contributed to our current understanding of dyslexia, reporting on the difficulties word-blind children had with musical notation, and the confusion they often exhibited between left and right. As the decades passed, the terms 'word blindness' and 'strephosymbolia' were discarded in favour of 'dyslexia' (which, translated directly from Greek, means 'difficulty with words'), and sterling work was done to remediate the difficulties experienced by children with the disorder. The early 60s saw the Word Blind Centre (later renamed the World Blind Centre for Children with Dyslexia) open in London, and 1972 saw the formation of the British Dyslexia Association. Critchley (1970) and Naidoo (1972) published important texts that have added greatly to the field. As the decades passed, research gradually saw a transition of interest from the medical to the educational in dyslexia, and the problems of definition (see 1.1) which have plagued the recent history of the condition (and taken the emphasis away from treatment) began. However, we are now at a stage where it is possible to identify a group of individuals whose difficulties with language and literacy make them distinctive. As Miles and Miles describe:

“The homogeneity among members of this group, despite all kinds of differences... [is] considered by many to justify the use of the same classificatory label” (1999, p.14).

1.3 What Causes Dyslexia?

As a result of the contributions of theorists over the last century, it is now established that developmental dyslexia is a condition that is “a medical matter in its origin and an educational matter as regards treatment” (Miles, 1980, p.77). Although the exact nature of this ‘medical’ origin is still the subject of controversy, recent developments have led many to believe that we are on the verge of a definitive explanation. In particular, the work of John Stein and colleagues at Oxford University has shed some light on the condition.

1.3.1 The Magnocellular Theory of Dyslexia

Stein and Walsh (1997) have provided the most convincing argument for the physiological origin of developmental dyslexia since it was first recognised. They claim that dyslexic symptoms emerge from abnormalities (either through genetic impairment or immunological attack *in utero*) of the magnocellular component of the visual system, which is specialised for processing fast temporal information. This could help to explain why many children with dyslexia (and associated difficulties such as dyspraxia) are remarkably clumsy, have temporal sequencing problems (such as telling the time, or remembering days of the week) and poor spatial sequencing abilities (telling left from right, or map reading) (Stein & Walsh, 1997). Importantly, the magnocellular component of the visual system also controls eye movement, which could explain why so many children with dyslexia show symptoms of visual confusion (i.e. reversals, distortion and blurring, superimposition).

Evidence for the magnocellular theory of dyslexia is divided into three areas: functional magnetic resonance imaging studies (fMRI), post-mortem studies, and neuropsychological case studies of brain-injured patients. Using fMRI techniques, Cornelisson et al (1995, in Stein & Walsh, 1997) reported that dyslexics showed a transient magnocellular deficit in visual motion sensitivity when compared to control

subjects. Gallaburda and Livingstone (1993) examined five dyslexic brains at post mortem, and found that the magnocellular layers of the lateral geniculate nucleus (LGN) were disordered, and that the magnocells themselves were 20% smaller than in control brains. Finally, evidence from patients with lesions in the posterior parietal cortex (which has strong anatomical connections with the magnocellular layers of the LGN) has shown that lesions to specific areas can produce many of the symptoms displayed by children with dyslexia (see Figure 1 and Table 2, below):

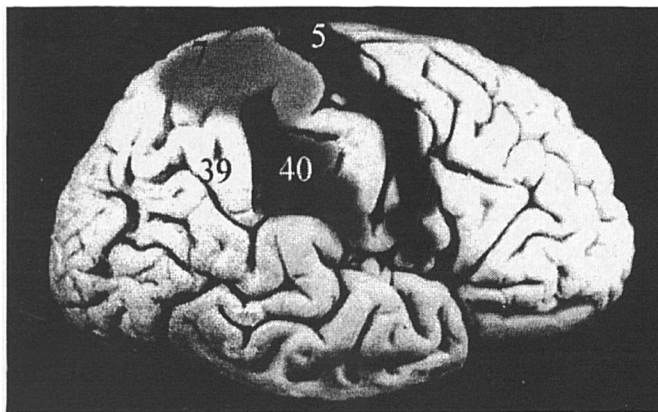


Figure 1. The posterior parietal cortex.

Function	Lesion (location – see Figure 1)	Dyslexia?
Spatial localisation	Mislocalisation (5 and 7)	+
Spatial orientation		
Self	Topographical agnosia	+
Objects	Letter reversals (5, 7 & 39)	+
Direction of visual attention	Neglect (39 & 40)	+
Directed auditory attention	‘Cocktail party’ problems (40)	+
Visuomotor co-ordination	Clumsiness (5, 7 & 39)	+
Visuoverbal association	Acquired alexia (40)	+
Attention to multiple objects	Simultanagnosia	?

Table 2. Functions of the posterior parietal cortex and their relations to dyslexia (adapted from Stein & Walsh, 1997).

No explanation of the physiological origin of developmental dyslexia can be considered if it does not account for the extreme difficulties associated with phonology that have been reported (see Miles & Miles, 1999, for a full review). Although the auditory system does not have an anatomically distinct magnocellular pathway, there is an auditory subsystem (Stein & Walsh, 1997), which is responsible for analysing acoustic transients (an example being discrimination between phonemes). Recent research has shown that the ability of dyslexics to discriminate between closely spaced frequencies (such as those found in human speech) is significantly worse than that of control subjects (McAnally & Stein, 1997). Sensitivity to amplitude modulation has been shown to be significantly lower in dyslexics than in control subjects, using both psychophysical and physiological techniques (Menell et al, 1999). In addition, studies of dyslexic brains at post-mortem have found abnormalities in the auditory magnocells of the medial geniculate nucleus (Stein & Walsh, 1997).

Although it is difficult to accept that there is a single explanation for the diversity of deficits seen in dyslexia, the evidence associated with a magnocellular explanation is impressive. Other common dyslexic symptoms, such as poor handwriting, clumsiness, poor coordination, poor balance, gaze overshoot and muscle hypotonia (Nicholson & Fawcett, 1995) could be explained through damage to magnocellular temporal processing associated with the vestibular and motor systems (Stein & Walsh, 1997). Thus, the conflict between visual and phonological accounts of dyslexia (see Frith & Frith, 1996) is resolved, since:

“the evidence is consistent with an increasingly sophisticated account of dyslexia that does not single out either phonological or visual or motor deficits. Rather, temporal processing in all three systems seems to be impaired. Dyslexics may be unable to process fast incoming sensory information adequately in any domain” (Stein & Walsh, 1997, p.147)

1.3.2 The Question of Genetics

An interesting element of early work on dyslexia was the immediate assumption of heredity as a determining factor. Indeed, Hinshelwood (1917) described 'word blindness' as a *hereditary* disorder, and even documented familial case studies to support his claims. The last century has seen evidence (both anecdotal and scientific) continue to mount suggesting that there is indeed a genetic element in dyslexia (Critchley, 1970; Naidoo, 1972; Thomson, 1991; Miles, 1993), although the subject is not without controversy. Firstly, there is the problem of interacting variables – one cannot assume that just because a father and son display literacy problems, then the explanation is a genetic one. Other variables (such as social influence) could be invoked as an interacting (or alternative) cause (Miles & Miles, 1999). Secondly, if we are to argue a genetic factor, we must distinguish between heredity of poor reading ability and heredity of dyslexia as a recognised neurological condition. In fact, a genetic explanation of specific dyslexia makes more intuitive sense – reading is not an innate ability (indeed, written language has only been around 5000 years or so (Frith & Frith, 1996)), and as such it is unlikely that there is a gene 'for' reading. Rather, any gene affected would be one which was commonly associated with the fast temporal processing functions detailed in the last section, since these are innate.

What is the evidence for genetic transmission of dyslexia? The most convincing recent evidence has implicated a number of chromosomes. Twin studies by Noethen et al (1999) and Smith et al (1983) have provided support for a 'dyslexia gene' on the long arm of chromosome 15. Cardon et al (1994) and Gayan and Olson (1999) have favoured a locus for dyslexia on chromosome 6. To purport a 'gene for dyslexia' is, however, an oversimplification. Rather, whichever gene (or genes acting in combination) is involved, it is clear that its actions have pronounced effects on the biochemistry of the body, creating anomalies in the developing brain, in turn leading to the behavioural manifestations of dyslexia (Miles & Miles 1999).

1.3.3 How Do We Check a Child's Magnocells?

How useful are these physiological and genetic explanations of dyslexia? It is unlikely that many parents would allow their children to participate in an early

screening test for dyslexia that involved taking a sample of brain tissue from the posterior parietal cortex, nor would many be likely to consent to genome testing of blood samples. So how can we use this information? The magnocellular theory gives us important indicators of which areas of cognition can be used as dyslexia 'markers' before the child begins to show literacy deficits. For instance, the evidence surrounding auditory magnocells ties in well with the observation that children with dyslexia have poor phonological awareness (an assertion that is commonplace). Thus, early screening tests such as the DEST (Nicholson & Fawcett, 1994) use sound differentiation as part of their diagnostic criteria. Likewise, the information on visual magnocells has been used to explain the relative success of coloured overlays and tinted lenses in dyslexia (Evans et al, 1994). The most successful lenses/overlays tend to be high wavelength colours (such as yellow or blue), which are known to strengthen visual magnocellular activity.

1.4 Educational Policy and Dyslexia

The 1870 Education Act embodied a universal right to literacy. Acquisition of the skills needed to read, write and spell were considered to be a natural part of growing up, and any individual who failed to do so was regarded as having too low an intellect to be educable. Of course, the 'discovery' of developmental dyslexia changed such notions, but for the first half of the twentieth century, little action was taken by the government. The 1944 Education Act promised regulations to define categories of pupils requiring special educational treatment, and provision was to be made as to the methods required to educate such pupils (Ministry of Education, 1944). It was made clear that the Local Education Authorities were responsible for identifying children with learning difficulties, and for placing them in the special schools which could cater for their needs.

The 30 years that followed saw a gradual distinction emerge between children with dyslexia, and those with literacy problems caused by general low intelligence. The Tizard Report (DES, 1972) targeted children with 'specific reading difficulties' (arguing that 'dyslexia' was a confusing term, and one which was more properly suited to describing an *acquired* condition), and acknowledged that such children needed special educational treatment. However, the Tizard Committee failed to

realise that children with dyslexia did not need 'more of the same' teaching to remediate their difficulties, but rather a different style of teaching altogether. The Bullock Report (DES, 1975) followed a similar theme, preferring 'specific reading retardation' to 'dyslexia', and recommending intensive teaching in remedial centres or reading clinics as opposed to mainstream education.

The Warnock Report (DES, 1978) sparked a revolution in the way in which children with special educational needs were regarded. It suggested that children with learning difficulties should be viewed a part of a wide ranging spectrum within the mainstream school, not as a discrete group to be educated in special schools. It also recommended that children with specific learning difficulties would need "specialist teaching techniques in particular areas of learning" (DES, 1978, para 3:25). The Education Act of 1993 (DFE, 1993) continued this trend, obliging mainstream schools to provide the same educational opportunities for children with learning difficulties as they did for children without them. Twelve months later, the Code of Practice on the Identification and Assessment of Special Needs (DFE, 1994) gave guidelines for teachers with no expertise in learning difficulties to follow in order to identify, assess and plan work for children with special educational needs efficiently in a mainstream setting.

The 2001 Code of Practice (DFEE, 2000 [Draft]) does not mention dyslexia *per se* (other than in passing references), but instead opts for detailing thresholds of 'specific learning difficulty', of which dyslexic symptoms (as well as dyspraxic, and other difficulties) are included. This is seen by the current author as a reflection of the present view of dyslexia as a set of symptoms within a grid of different difficulties (see 1.1). Also, for the first time, the Code of Practice mentions that "signs of frustration and/or low self-esteem" (DFEE, 2000, p.18) may be evident in specific learning difficulties, marking a significant development in official thinking. However, despite this acknowledgement, there is no suggestion of strategies to increase self-esteem as part of the intervention programme.

1.5 Teaching and Learning with Dyslexia

“It is generally accepted that children with dyslexia have a number of measurable differences from their non-dyslexic peers. This being the case, it implies that the dyslexic will require a different system of teaching which will take into account such differences.” (Thomson & Watkins, 1994, p.4)

Teaching and learning in relation to dyslexia inevitably focus on literacy. The last century has seen the development of programmes designed to compensate for the deficits in visual and auditory channels by utilising other modalities (e.g. tactile-kinaesthetic, oral), such as the one developed by Gillingham and Stillman (1956); these are *multi-sensory* teaching methods. However, recent programmes have been published which also focus on study skills development, general thinking skills, and the use of information technology (Miles & Miles, 1999). Thus, children with dyslexia can now receive a broad spectrum of teaching programmes that are suited to their learning style, and cover the areas needed for independent learning.

1.5.1 Multi-Sensory Teaching

The idea that using secondary sensory modalities to complement and supplement defective primary modalities can increase literacy skills in children with dyslexia is not a recent development by any means. Indeed, Hinshelwood’s (1917) work with ‘word-blind’ children demonstrated the use of tactile learning (using wooden block letters) to strengthen visual impressions of letters. As programmes have become more sophisticated (Gillingham & Stillman, 1956; Hickey, 1977; Miles, 1998), more sensory modalities have been used, providing a more comprehensive path towards learning:

“The learner is using visual, auditory, kinaesthetic and oral abilities in an integrated process, thus encouraging the various parts of his sensori-motor system to support each other in making permanent sound-symbol associations.” (Hickey, 1977, p.ix)

The most recent multi-sensory programmes, such as the Beat Dyslexia programme (Stone et al, 1993) the Arrow programme (Lane, 1994), and the Bangor Dyslexia Teaching System (Miles, 1998) have placed emphasis on awareness of sounds in words (promoted through the auditory sense and reinforced through the oral sense) and awareness of generalisations in letter patterns (promoted through the visual sense and reinforced through the tactile sense), as shown in Table 3:

Aims:
<ul style="list-style-type: none">- to develop the pupil's awareness of sounds in words;- to demonstrated the connections between reading and spelling by establishing firm grapheme-phoneme relationships;- to stimulate the pupil's ability to transfer knowledge of learned spellings to those with similar letter patterns;- to provide a variety of reinforcement activities to allow over-learning to occur;- to employ teaching strategies compatible with the individual learning style of each pupil;- to nurture self-esteem by asking the pupil to use only elements that have been thoroughly taught;

Table 3. Aims of recent multi-sensory teaching programmes (adapted from Stone et al, 1993, Lane, 1994, and Miles, 1998).

Multi-sensory programmes that are systematic, cumulative and thorough have been found to be the most effective teaching method for developing literacy in children with dyslexia (Miles & Miles, 1999). However, the development of literacy is not the only difficulty experienced by those with dyslexia, and as such programmes have been developed to help with other areas affected by the cognitive deficits involved.

1.5.2 Study Skills and Thinking Skills

Secondary-aged children with dyslexia face a number of new difficulties as they are required to write essays and reports which require planning, organisation and structure, none of which come easily to them (Miles & Miles, 1999). Techniques

have been devised for laying things out in space, such as flow-charts and mind-maps (Buzan, 1989), which allow the dyslexic child to bridge the often difficult, and frequently wide gap between his/her thoughts and their representation on paper in a quick, easy manner. Once a mind-map or flowchart has been jotted down, the linear structure of an essay or report can be devised. Further, memorising techniques have been produced (Buzan, 1995) to aid the dyslexic child in revision, including the use of highlighter pens (to note important parts of a text), index cards and posters. Other authors (e.g. McKay, 1997, Palmer & Pope, 1984, in Miles & Miles, 1999) have provided suggestions for setting objectives and priorities in schoolwork, effective reading, and analysing text. There is at present, however, a distinct lack of empirical research to support the claims of the various programmes.

Although there is little published work that specifically addresses thinking skills in dyslexia, it is appropriate to look at one of the most famous 'teaching to learn' programmes, as it seems to have much to offer the dyslexic child. Feuerstein's *instrumental enrichment* programme (in Ben-Hur, 1994), working on the basis that intelligence is a modifiable construct (as opposed to being fixed in each child), fosters the development of organisational skills, strategies for analysing and solving problems, communicating solutions and so on. Each activity (usually a pen-and-paper, non-threatening problem) which the child undertakes is done in the presence of an adult mediator, who encourages the child to succeed and discusses how particular problems can be solved. In the context of dyslexia, the increase in such areas as organisational skills, and communication of solutions, could be beneficial. Again, however, research in this area is lacking.

1.5.3 Information Technology

The availability of information technology (IT) has revolutionised the production of written work for dyslexics (Miles & Miles, 1999). There are two main benefits, the first of which is the ease with which thoughts can be translated into text. Children with dyslexia can now produce neat, legible, well-spaced written work which is not marred by crossings out and poor handwriting. Documents can be spell-checked, and the structure of a piece can be easily changed. More recent programmes also include 'voice-navigators', which the child can use to dictate text. The second benefit

involves the use of IT-based resources, such as CD-ROMs, which allow for quick accessing of information. Some programmes also allow the child to mind-map and build flow-charts to aid the organisation of work (Miles & Miles, 1999).

1.6 Current Educational Provision for Dyslexia

The 1994 Code of Practice (DFE, 1994) saw changes in the way the education of a child with dyslexia was decided. The expectation of the school, the wishes of the parents, and indeed the child him/herself, are now considered. If a child reaches the statutory assessment stage (stage 4) of the five stage model for identification and assessment, his/her parents, in conjunction with their child, the school he/she currently attends, and the significant others involved (usually educational psychologists), “may call for special educational provision which cannot be reasonably provided within the resources normally available to mainstream schools in the area” (DFE, 1994, p.58, 3.63). Before this decision is made, those involved have to assess a number of factors, including the special educational provision that is already being made for the child, the child’s responsiveness to this, external factors (such as parental contribution to the child’s learning) and so on (DFE, 1994).

The assessment of the child’s difficulties and the provision available may lead the LEA to decide to do one of the following:

- keep the child in his/her current mainstream setting and increase/change special educational provision based on statutory assessment;
- move the child to a specialist unit within the school (or a specialist unit at another mainstream school);
- move the child out of mainstream education and into a specialist school.

The decision made by the LEA when drawing up the statement of special education need is obviously dependent on the precise circumstances of each case (for instance, the school attended may not reasonably be expected to make the necessary provision for the child within its own resources).

In 1999, the Office for Standards in Education (OFSTED) surveyed the provision available for children with specific learning difficulties in mainstream schools, noting that “the majority of pupils... were placed in specialist provision [i.e. specific learning difficulties unit within the mainstream school]” (OFSTED, 1999, p.5). In some cases, pupils remained in their original classes and received help from the Special Educational Needs Co-ordinator. In a small number of cases, pupils spent the majority of their time separated from their mainstream peers (OFSTED, 1999). Unfortunately, the report does not provide any information about possible differences in attainment and progress made by pupils in these differing situations.

The draft 2001 Code of Practice (DFEE, 2000) has placed further emphasis on parental involvement in issuing statements of special educational need, and a specific parental request is now one of several routes to referral for statutory assessment. For specific learning difficulties such as dyslexia, the LEA’s decision to refer will depend on:

“the severity of the child’s cognitive ability and any associated difficulties in accessing the curriculum. If solutions for a child have moved beyond ordinary differentiation... then an assessment may be necessary” (DFEE, 2000, p.61).

2

The Self

Research on the self has had a long, prolific history in psychology (Campbell & Lavalley, 1993), and with some justification. Our notion of self informs our behaviour, and is an important factor in motivation and achievement in learning situations. Indeed, Lawrence (1996) states that “one of the most exciting discoveries in educational psychology in recent times has been the finding that people’s levels of achievement are influenced by how they feel about themselves” (p. xi). However, the importance of the self is not limited to the field of education, as Mruk describes:

“On the one hand, this vital human phenomenon is often understood in relation to positive mental health and general psychological well-being. ...research in this area correlates high self-esteem with such things as positive ego functioning, good personal adjustment, an internal sense of control, the likelihood of a favourable outcome for psychotherapy, healthy adjustment to ageing, and a tendency toward androgyny... On the other hand, the lack of self-esteem is related to... feelings of inadequacy, a sense of unworthiness, increased anxiety, depression, suicide...”

(1999, p. 1-2)

2.1 Arriving at a Definition

Before one can begin a review of the literature on the self, it is important to define terms. This is done to provide transparency, avoid confusion and, in the case of research, dictate a clear template through which measurement tools can be developed (see 2.6.2). Indeed, Glaus (1999) has stated that, “differing definitions have led researchers and clinicians down different paths in their search for a means to accurately assess or measure the construct” (Glaus, 1999, p.458). Further, a definition opens up a real pathway toward understanding something (in this case, ‘the self’) (Mruk, 1999). The area of ‘the self’ is fraught with inconsistencies, and many

of the associated terms are often used interchangeably (Lawrence, 1996) (which makes it essential to differentiate them early on!). Indeed, Smelser observed:

“we have a fairly firm grasp of what is meant... as revealed by our own introspection and the behaviour of others. But it is hard to put that understanding into precise words” (1989, p.4).

For the purposes of this research, the following terms are to be defined thus:

1. ‘Self-Concept’

[broadly defined as] “...an organised schema that contains episodic and semantic memories about the self and controls the processing of self-relevant information” (Campbell & Lavalley, 1993, p.4).

2. ‘Self-Esteem’

[broadly defined as] ...the evaluative component of the self-schema, particularly the degree to which one is satisfied with it, in whole or in part (Beane & Lipka, 1986). Self-esteem is “a personal judgement of worthiness that is expressed in the attitudes the individual holds toward himself” (Coopersmith, 1967, p.4-5).

3. ‘Ideal Self’

[broadly defined as] ...a schema of ideal standards of behaviour and particular skills which are valued by the individual (Lawrence, 1996). The ideal self provides a point for comparison in an individual’s evaluation of his/herself (see ‘Self-Esteem’).

4. ‘The Self’ or ‘Self-Perception’

[broadly defined as] ...an umbrella term used to describe the relationship between the above schemata (as displayed in Figure 2), but also to describe the combination of thoughts, feelings, attitudes and beliefs that make a person an *individual*. The whole is greater than the sum of its parts.

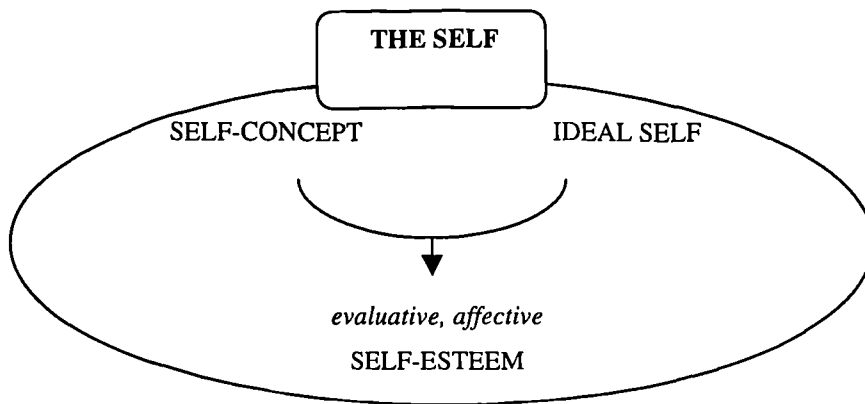


Figure 2. A model of the self.

The definitions are broadly defined and taken from a number of sources primarily to avoid what phenomenologists call “the problem of perspectivity” (Mruk, 1999, p.9). That is, each particular way of seeing the self limits our ability to approach it from a different perspective, much as when we have to stand somewhere to see a physical object – each time we turn in one direction, we close off perception in another. An attempt has been made here to provide a workable definition of the components of the self that avoids perspectivity issues.

2.2 The History of Self

Having defined our subject matter, the author feels that it is now possible to provide a historical overview. Looking at the history of the self is important for several reasons. Primarily, if we want to understand the present, we must look to the past: “The words of a dead man... Are modified in the guts of the living” (Ryce-Menuhin, 1988, p.20). That is, in order to understand how a modern day notion of self has been arrived at, one must investigate the important historical figures who have contributed to it; this provides us with perspective. Conversely, to ignore the contribution of such figures would make for an extremely shallow analysis. As the old adage states, ‘those who know only their own generation will always remain children’.

The complexity of the nature of the self has occupied the thinking of philosophers for centuries, but was not considered to be a proper topic for psychology until William James (1890; 1892) began to write extensively on the subject. James contributed several key ideas which are still present in current thinking. Firstly, he envisaged the development of self as a learned activity, from the “big blooming buzzing confusion” (Lawrence, 1996, p.2) of the infant to the eventual adult state of self-consciousness. He considered development throughout life to be a process of becoming more and more aware of one’s own characteristics and consequent feelings about them. Further, James attempted to break down ‘the self’ into distinguishable parts (a notion that is now thriving) – the material self (one’s body and personal possessions), the social self (our sense of human relations and status), and the spiritual self (centred in desires, inclinations and emotions) (Beane & Lipka, 1986). James’s “spiritual self” included a “self-appreciation” (Gurney, 1988, p.7) component that mirrors some aspects of what is now known as ‘self-esteem’. James felt that this component dealt with the feelings and emotions aroused by our awareness and knowledge of ‘self’. James also acknowledged the relationship between the self and behaviour (Gurney, 1988), and was one of the first scholars to put forward the concept of different ‘social selves’, i.e. the idea that we wear different personality ‘masks’ according to situation and context (Harris, 1998).

At the turn of the century, Charles Cooley (1902) began to develop James’s ideas about the social aspect of the self. Cooley considered the intimate relationship between the individual and the social environment in which he/she lived to be the most important aspect of self development. He coined the term *looking glass self* to describe the notion that an individual’s concept of him/herself is “entirely, or largely, determined by the reactions of others to him in the course of social interaction” (Gurney, 1988, p.7). This view would be extended by Mead (1934), who postulated that the self emerges “from an interpersonal field created by two sets of forces, and a process, which is called symbolic interaction, that links them. One set of energies is the individual; the other is the social context... in which the person exists” (Mruk, 1999, p.35). Mead also borrowed from William James (1892), in stating that self-perceptions are multi-dimensional, consisting of the various roles which one plays, and hierarchical, in that some of these dimensions are more important to us than others (Beane & Lipka, 1986).

The Freudian contribution to the modern concept of the self centres mainly around the formation of the 'ego'. Freud (1923) argued that the self comprised three distinct mental systems: the innate, unconscious, gratification-oriented *id*, the rational, reality-oriented *ego*, and the moralistically irrational, censoring *superego* (Leahey, 1997). Importantly, the conscious element of the self (the ego) was, Freud argued, learned as a result of transactions between the individual and his environment (Gurney, 1988). Like Cooley and Mead, Freud believed that the relationship between an individual and the outside world was of critical importance (at least in terms of self/ego formation). His views on the rest of the self were radically different, however, as he emphasized the role of unconscious motives (in particular the *superego*) in the behaviour of the developing child.

The popularity of the Freudian movement drew attention away from the study of the self in its own right, and this was further reinforced by the rise of behaviourism (Gurney, 1988). Although some behaviourists (including John Watson, one of the pioneers of the movement) acknowledged the role of internal states in human behaviour, the tough, empirical approach to research psychology adopted meant only that which could be observed was considered to be important (Leahey, 1997).

The re-emergence of the self as a central component of the personality was largely attributable to the work of Carl Rogers (1951). Rogers stated that the self was an "agent of... destiny" (Gurney, 1988, p. 9) for the personality, and that it developed from a combination of what an individual directly experienced and introjected. A sense of self was derived from personal values and affective preferences. The more congruent an individual's ideal, real, and perceived self were, the healthier that individual's self-esteem would be (Carlock, 1999). Rogers talked of development towards a 'true' self, and this was echoed in the work of Maslow (1954), who wrote extensively about the process of 'self-actualisation'. Both ideas are important in terms of modern conceptions of self in that they both imply the striving of an individual towards a potential or ideal which may never be fully achieved (Gurney, 1988).

Although not referenced specifically to self-concept or self-esteem, Kelly's (1955) *personal construct theory* (now known as 'personal construct psychology') is

relevant to the wider field of identity development (of which self-concept and self-esteem are determining factors), and as such is worthy of discussion. The fundamental postulate of personal construct psychology is that a person's processes are psychologically channelled by the ways in which he/she anticipates events (Pope & Keen, 1981). Kelly rejected the notions of man as a creature driven by instincts (i.e. Freudian, psychoanalytic) or schedules of reinforcement (i.e. Skinnerian, behaviourist), and instead opted for the view of man as a scientist, drawing up a representational model of the world in order to chart a course of behaviour in relation to it. In attempting to anticipate events, Kelly saw man constantly modifying, exploring, and revising this model to allow better predictions in the future, just as a scientist would (Pope & Keen, 1981). This theory can easily be integrated into a model of self-concept development (see 2.3), and is in line with the ideas of other authors (see Table 4), who view the developing self as an entity that is constantly being modified on the basis of environmental experience.

The work of Erving Goffman (1959; 1963) developed the notion of social identity, and in particular the idea that our identity can become spoiled (or 'stigmatised') by attributes which are considered inferior by society. Goffman wrote from a sociological perspective, and mainly used examples such as race and physical disability or deformity to illustrate 'stigmas'. His work is relevant both in our conception of the developing self (particularly the idea of a social identity), and in the consideration of detrimental factors that harm self development (see 2.5.4).

The following two decades revealed yet more important contributions to our modern notion of the self. Sullivan (1953), Coopersmith (1967), and Rosenberg (1979) all promoted the concept of 'significant others': the idea that within the confines of one's social world, there are individuals who are more influential upon us than others. In particular, Coopersmith has suggested that the important factors in the maintenance of *self-esteem* are:

“...the amount of respectful, accepting and concerned treatment received from significant others, the history of successes and status and position held in the world, the interpretation and modification of experiences that accord with values and aspirations, and the individual’s manner of responding to devaluation” (1967, in Samuels, 1977, p.34).

Bandura (1977, 1997) incorporated this into his theory of ‘self-efficacy’, which can be thought of as “a person’s sense of how he or she is likely to do in a given situation based on a number of variables, such as past performance on similar tasks” (Mruk, 1999, p.109). According to Bandura, children adopt as models adults who are important to them, and in doing so adopt and internalise their standards. These self-imposed standards lead children to respond to their own behaviour in a self-satisfied or self-critical way. Bandura also warned that, in certain cases, these internal responses could be more powerful than the actual environmental consequences of their behaviour: “...there is no more devastating punishment than self-contempt” (1971, p.3).

2.3 Towards a Model of the Developing Concept of Self

Using the major themes drawn out in the last century, it is possible to piece together a set of assumptions about the self that will permeate the model of self-development that will follow. These assumptions are presented in Table 4. For the purposes of clarity, the major contributors to each assumption are noted.

Assumption	Contributor(s)
Concept of self is learned;	James (1890, 1892), Freud (1923), Bandura (1971, 1977).
Self has a central place in personality, and acts as a guide to behaviour;	James (1890, 1892), Rogers (1951), Maslow (1954), Kelly (1955), Goffman (1959, 1963).
Self-perceptions are multidimensional and hierarchical (although at one level they blend into a general sense of self);	James (1890, 1892), Mead (1934), Goffman (1959, 1963).
Self-perceptions tend to seek stability, consistency and enhancement;	Rogers (1951), Maslow (1954), Kelly (1955).
Self-perceptions may be based on roles played by the individual as well as attributes one believes he/she possesses;	James (1890, 1892), Cooley (1902), Mead (1934).
Self-perceptions arise mainly in a social context;	Cooley (1902), Freud (1923), Sullivan (1953), Coopersmith (1967), Bandura (1971), Rosenberg (1979).
The early learning period is crucial to later development in terms of both concept of self and behaviour.	James (1890, 1892), Freud (1923).

Table 4. Theoretical assumptions for a model of the developing self.

These assumptions are important when we begin to consider a model for the development of the self. Gurney (1988) has proposed a three-stage model, “derived from a general consensus in the literature” (Gurney, 1988, p.17). The model is outlined briefly below, with important developmental milestones associated with ‘the self’ noted:

2.3.1 Stage 1

Primitive Self (Pre-self-awareness stage)

0-2 Years

The first two years of life are difficult to study. Babies cannot tell us what they think or feel, and we must infer from observation. Cohen (1978) has demonstrated babies' increasing interaction with adults (particularly their primary caregivers), and their continued exploration of the environment. Separating the self from the world at this early stage is done largely on a sensori-motor basis, as, for instance, the child receives additional pain messages chewing his/her toe as compared to chewing a plastic peg (Gurney, 1988). Before the average child reaches his/her third year, however, he/she will achieve two important milestones in development that pertain to the self. Between 18 and 24 months of age, the child will recognise his/her own image in a mirror (self-recognition) (Bertenhal & Fischer, 1978), and will begin to use personal pronouns in speech (i.e. "Connor finished!" or "I done!") (self-reference) (Cole & Cole, 1996).

2.3.2 Stage 2

Exterior Self

2-13 Years

Gurney (1988) states that this is potentially the most crucial stage in self development. The child is beginning to form a self-concept, and is particularly sensitive to incoming information: "Experiences involving relative success or failure, and comments on the child made by significant adults, act in a particularly powerful way at this stage" (Gurney, 1988, p.21). The overall characteristic of this stage is the child's concern with the external self. Rosenberg (1979) describes the younger child as a 'behaviourist', limiting self-descriptions to characteristics that can be observed by others.

Within the period of exterior self, there are several discrete substages. Before the age of eight, the child conceives his self in purely physical terms, and it is seen as being a part of the body (often in the head). There is confusion over mind, self and body. Discrimination from others is based on mainly physical attributes ('I am different from James because he has red hair') (Gurney, 1988). At around the age of eight, the mind-body distinction begins to be achieved, and individuality is measured by internal as well as external features. Secord and Peevers (1974, in Gurney, 1988) note that self-concept statements make a shift from the absolute to the comparative (e.g. 'I can ride a bike' becomes 'I can ride a bike better than John'). Further, the child is increasingly able to stand back and make affective judgements about the self. Importantly, there is a shift in the understanding of the use of emotion labels – from the ages of five to seven, children tend to relate emotions to how others might feel (e.g. 'My mum is proud of me'); after age eight, they begin to describe how you can be proud of *yourself*. The final years of the exterior self are spent developing the internal stance of self-awareness. The child becomes increasingly aware of the link between internal processes and behaviour in others (Gurney, 1988).

2.3.3 Stage 3

Interior Self

13 Years +

The final stage of self development is marked by several important changes. Firstly, the adolescent starts to describe him/herself in terms of personality characteristics as opposed to physical attributes (Cardell, 1999). Further, Rosenberg (1979) has noted a shift in the frequency of use with which categories of trait labels are used, from a focus on emotional control ('I don't lose my temper' - early adolescence), to interpersonal trait labels ('I'm friendly' - middle adolescence), and finally to values, attitudes, secrets and fantasy in late adolescence. Secondly, self-concept becomes less global and more differentiated. In contrast to the stormy, stressful, turbulent years of adolescent development, self-development has been found to be relatively smooth and consistent (Dusek & Flaherty, 1981). On a cognitive level, the adolescent develops the ability to abstract, i.e. constructing hypotheses about reality and causality as opposed to merely relying on concrete elements (Cole & Cole,

1996). This is reflected in the way in which the adolescent characterises him/herself, relying “on introspection in which one can reflect on one’s own thoughts, motives and feelings. Self-theory is no longer the province of the textbooks, it is a tool used by the adolescent” (Gurney, 1988, p.24-25).

2.4 Developing Self-Esteem

Gurney’s (1988) model focuses largely on the development of the self-concept. Whilst it is extremely difficult to provide a similar, developmental model of self-esteem development, it is possible to highlight several factors that are thought to be important in the developing child. These may then be viewed alongside Gurney’s (1988) model to provide a tangible description of overall self-development.

2.4.1 Competence Motivation, Industry Versus Inferiority, and Personal Agency

White (1959) created the term *competence motivation* to describe the innate trait of striving towards mastery. Erikson (1968) described *the crisis of industry versus inferiority*, in which children recognise their weaknesses and choose to achieve in their areas of strength. McGraw (1987) uses ‘personal agency’ to refer to the child’s inner sense of capability. All three theorists share a common belief: we all have an innate drive to achieve, and this drive interacts increasingly with the environment.

A social learning viewpoint is of great value in understanding the interaction between the child and the environment. The child’s motivation to achieve leads him/her toward independent attempts at mastery. Following these attempts, the child may receive positive or negative feedback from different sources, including their own assessments and the reactions of others (Cordell, 1999). Positive feedback has two main consequences - increases in the child’s inner sense of capability and worthiness, and renewed efforts, as Cordell (1999), describes: “When children feel worthwhile, they believe that they can set goals and achieve them” (Cordell, 1999, p.291). Negative feedback leads to feelings of failure and a tendency to avoid challenges. It is also detrimental to the child’s inner drive towards mastery and achievement. The work of Goffman (1963) is also relevant, since failure to achieve mastery in certain

skills (such as literacy) is widely considered to be unacceptable (certainly in Western culture), leading to stigmatisation (see 2.5.3).

2.4.2 Play and Imagination

Play and imagination are important for several reasons. Firstly, using fantasy helps children to delay gratification and deal with frustration (Mitchell, 1996), which has implications for success in life. In particular, *cooperative play* (where children play together, helping and taking turns) helps children learn about the reciprocity of relationships, and lets them practise listening, sharing, and responding to others in an acceptable manner. Secondly, pretence, the backbone of fantasy play, is a critical element in the development of *theory of mind*, which is the ability to attribute mental states to others (Mitchell, 1996). This construct is influential in the child's growing understanding of beliefs, values and intentions (Mitchell, 1997).

2.4.3 Personal Space

Cardell (1999) has suggested that another way of viewing self-esteem development is to look at how children handle personal space. Typically, children will keep space between themselves and people they do not know. The more they trust a person, the less distance they need. Both DiLeo (1983) and Bourisseau (1972) have analysed children's drawings, and found that greater space between figures in drawings and smaller figures can indicate low self-esteem. The validity of such 'projective' techniques will be discussed in a later section.

2.5 What Factors are Detrimental to Self-Development?

Given that so many factors contribute to self-development, it is easy to see how deficits occur. What appears to be a determining factor is how the individual organises, interprets, and deals with (in an affective sense) the information he/she is given. This is largely idiosyncratic, and difficult to study. At a mechanical level, however, it is easy to see how problems, particularly in self-esteem, manifest themselves. Harter (1993), borrowing from William James, has postulated that rather than simple failure in a particular domain being enough to cause low self-esteem, it is

the *perceived importance* of achievement that is important. To illustrate this, he notes the case of two boys, whose self-concept profiles were almost exactly the same, but whose self-esteem ratings were radically different. When an importance scale was added during testing, it became clear that the child with lower self-esteem rated each particular self-concept domain as much more important than did the child with high self-esteem. Although again, the specific function of importance of domains may be considered to be unique to each child, the role of culture in inducing 'perceived importance' is crucial (Mruk, 1999). A useful example is physical appearance in teenage girls. The western culture is awash with waif-like models and media personalities, leading developing teenagers to believe that being skinny is an important part of living a happy and successful life. Their self-concept suffers ("I'm fat compared to Kate Moss"), and inevitably, so does their self-esteem, as they strive to reach an unrealistic ideal.

Yamamoto (1972) highlighted several pathogens in contemporary American life that he considered to be harmful to self-development, and in doing so brought to our attention factors that will be important when we consider the self in the educational context.

2.5.1 Lack of Consistency and Limits

A certain amount of inconsistency in a child's life can be good – adults (such as parents, teachers and so on) express themselves in different ways, and in turn the child sees the pattern for developing as a unique individual. However, "chronic inconsistency is a highly damaging interactive pattern which has led families, and teachers as well, into trouble" (Yamamoto, 1972, p.124). Adults can be hypocritical ('Do as I say, not as I do!'), and often do not share similar goals and expectations for the children under their care (Yamamoto cites the example of the punitive, expectant father vs. the soft, accepting mother). Discrepancies between the values of parents and teachers are also common, creating further inconsistency and maladjustment. Children need limits, and will 'test and probe' to find where the limits will be placed consistently in their lives. As Cordell states:

“We have a high degree of narcissism in our culture these days; individuals of all ages do what they choose to do simply because they want to, believing that their own needs come before all else. This is the problem of our times – the “underside” of self-esteem. Instead of “too little”, we may be in danger of having “too much” without a realistic base. Parents, seeking to protect their children from the harsh realities of failure, seem to equate love with giving everything they have. Children learn that they are entitled, and that everything should be easy. Consequently, when they do not experience immediate success, our children simply quit” (1999, p.288-289).

2.5.2 Over-coerciveness

Some parents (and, indeed, teachers) tend to be too controlling with their children. They think that the child needs constant attention and supervision in order not to make mistakes. The child learns that his own attempts to make decisions and act independently must first be sanctioned by an adult (Yamamoto, 1972), stifling the very creativity and spontaneity that should be commonplace in childhood.

2.5.3 Failure to Achieve Success in Responsibility Assumption Skills

Culture defines the form of systematic instruction that children receive as we try to teach them how to be potential contributors and providers to society. A great deal of a child’s sense of adequacy “hinges on his understanding of what his role in life is to be and how well he is able to master the specific skills which make up that role” (Yamamoto, 1972, p.127). Parents and teachers often expect success from children when not nearly enough structure, adequate teaching and practice has been provided. This ‘sink or swim’ approach means that many children are repeatedly exposed to failure, and become learned helpless and apathetic (Johnston & Winograd, 1985). As Adler (1956, in Yamamoto, 1972) has pointed out, “...no one takes to the worthless side of life unless he has first become convinced that he cannot make a go of the worthwhile side” (Yamamoto, 1972, p.127). For example, the Western emphasis on developing literacy skills means that children who have problems in this area are extremely likely to see themselves in a less positive light than those without

difficulties. Literacy pervades every aspect of our schooling system and culture, and our children receive consistent messages that in order to be a worthy contributor to society, one must first master this 'basic' skill. As we shall see in sections 3.2 and 3.6.3, this has important implications for developing children.

These pathogens are by no means the only factors that can be detrimental to the development of self-concept and self-esteem, and indeed, Yamamoto (1972) also points to more idiosyncratic influences such as familial breakdown, physical abnormalities, which Mruk (1999) has suggested is the most common causal factor in low global self-esteem, (also, see 2.5.4 below) and rejection by significant adults. Lack of consistency and limits, overcoerciveness, and failure to achieve were all highlighted in this text because they are factors that are extremely likely to arise in an educational context, which will be the centre of discussion for section 3. However, there is one further pathogen which Yamamoto failed to note that remains to be highlighted:

2.5.4 Stigmatisation

The concept of 'stigma' in the context of the self and identity was introduced by Goffman (1963, see 2.2). It was a term originally coined by the ancient Greeks, who used it to refer to bodily signs designed to expose something unusual and bad about the moral status of a person. In Goffman's theory, a stigma is implemented by society on a person who displays attributes which are deemed abnormal or unworthy. These attributes can be overt, such as a physical deformity or disability, or covert, such as a difficulty in learning to read. The way in which the attribute is exposed and dealt with by an individual largely influences the effect a stigma has on the identity of the person in question (Goffman, 1963). A worst case scenario for this is described by Goffman as 'spoiled identity', where the stigma pervades all aspects of the self. In terms of the developing self, it is easy to see how much damage could be caused by societal reactions to 'abnormal' attributes, especially in situations where the child has attempted to hide the attribute, and has been 'discovered'. A useful example is seen in the child with learning difficulties who employs coping strategies to shield himself and his family from the 'shame' of not being able to perform as well as his peers.

2.6 Measuring Self-Concept and Self-Esteem

Having established the importance of the self to the understanding of human behaviour, the author feels that it seems fitting to turn to the questions of measurement and research (Glaus, 1999). As with the problem of definition, this area is also fraught with difficulty and inconsistency, not least from attempting to use the scientific method to study something like the self (Mruk, 1999). In general, these difficulties can be divided between the *conceptual* and the *methodological*. Since methodological issues will be discussed in depth in a later section, we shall concentrate on the conceptual.

2.6.1 Conceptual Problems

A major conceptual problem is that of definition. What do we mean by self-concept, self-esteem and the myriad of other self-related terms? The current author has already defined the major terms as they should be understood throughout this text. Is it possible to compare research and measurement tools used by different authors, when there is a very good case for arguing that they were researching different phenomena? Mruk (1999) has suggested that this situation has led to difficulties not only in knowing what aspect of the self a researcher has been studying, but also in what a particular finding has actually uncovered.

A second conceptual problem is that of the use of competing constructs, both literally and psychologically. Literally speaking, there is competition between the use of terms such as *self-esteem* and *self-respect*, or *self-concept* and *self-image*, and it is difficult for the researcher to differentiate between them with any degree of accuracy. Indeed, Mruk (1999) has described them as impure phenomena. In a psychological sense, it is difficult to study, for example, self-esteem because it is always connected with many other self-related phenomena and processes, from consciousness to identity (Mruk, 1999). It would be easier to study the different aspects of the self if we could separate them from that to which they are related, but this is impossible. Instead, it is perhaps wisest to view this complexity as a 'necessary evil' of self research, which "reflects the fact that self-related phenomena coexist in an intricate,

multidimensional, interlocking network of structures that depend on each other for existence” (Mruk, 1999, p. 34).

The final problem arises when considering how one should conceptualise the terms ‘self-concept’ and ‘self-esteem’. Should we consider them to be uni-dimensional (i.e. global self-esteem), or multi-dimensional (i.e. academic self-concept) entities? In terms of the self-concept, this issue is largely resolved, with a consensus that it is possible to consider both options without creating a paradox. With self-esteem, however, the course is not so clear (Glaus, 1999), and this issue is the subject of much controversy. This is because measures of self-esteem are borne out of particular theoretical frames of reference, and as such a dichotomy has arisen between tests which measure only a global sense of self-esteem (Lawseq Scale, Lawrence, 1996) and scales which measure self-esteem associated with discrete areas of functioning (Body Esteem Scale, Franzio & Shields, 1984).

3

Self-Concept and Self-Esteem in the Educational Context: Relations to the Current Research

Given that the most crucial period of self development is childhood, it is important to consider the role that education plays. Research has established relationships between self-concept, self-esteem, and a number of educational factors, such as motivation (e.g. Austin, 1991; Whitfield, 1995; Frymier et al, 1996), academic achievement (e.g. Moeller, 1994; Coopermsith, 1967) and special educational needs (e.g. Margerison, 1996). Richmond states that:

“...school becomes an environmental extension which continues and augments the processes involved in developing the self-picture, providing the individual with new evaluative contexts. In this context a child's relative success may depend... [on the] evaluations they make of their own self-worth. How a child sees them self... and what value they put on them self (self-esteem) may prove crucial in determining the goals they set themselves, the attitudes they hold, the behaviour they display and the responses they make to others.” (1984, p.57)

Burns (1982) reviewed the research on self-concept development and education and drew out several key influences. Of importance here are significant others and feedback, academic achievement, and learning difficulties. Also worth taking into account are the influences of parental behaviour, teacher expectation, and institutional features of school. Each will be considered in turn, along with relevant and related self-esteem research. Where appropriate, relations to the current research will be outlined.

3.1 Significant Others and Feedback

The theories of self-development in the previous chapter put forward the notion that there are certain figures in the child's social life who come to be more important than others. Burns describes these 'significant others' as:

“those persons who are important or who have significance to the child by reason of his sensing their ability to reduce insecurity or to intensify it, to increase or decrease his helplessness, to promote or diminish his sense of worth. Significant others play a confirming role in defining the self” (1982, p.164).

In the first instance, parents are presumed to be the most significant others. As the child enters education, teachers and peer group become influential. Crucially, “in the presence of one whom we feel to be of importance, there is a tendency to enter into and adopt... his judgement of ourself” (Cooley, 1902, p.175).

The processes by which significant others affect the development of the self-concept are through image reflection and feedback. In terms of image reflection, major theorists such as Cooley (1902) and Mead (1934) have acknowledged that the child experiences him/herself indirectly from the particular standpoints of other individuals of the same social group. Teachers and peers reflect an image of the child which, if consistent and stable, although not necessarily accurate, is incorporated into the child's developing self-concept. Thus, if a child constantly perceives that children in his/her peer group regard him as physically unattractive, this is likely to become a feature of his self-concept.

Feedback from significant others is a way of making sense of and interpreting experiences and events (Burns, 1982). In the early years, children look to others to evaluate what they have done. As Burns (1982) describes, “we come to evaluate ourselves through the subjectively perceived responses of others to us” (p.165). Feedback necessarily involves reinforcement (which can be positive or negative) and its effects are dependent on contextual factors (e.g. giving a gold star to the child who has performed well is likely to work with 5 year olds, but probably not sixteen

year olds). As children grow older, they develop the ability to produce internal self-referent feedback (e.g. "Good, I managed that quite well"), although this is largely influenced by the feedback they are used to from others. Thus, the child who constantly receives negative feedback will habituate this form of response into his internal self-referent feedback, even in situations where he/she has actually succeeded. An extreme example of this is displayed in the work of Ingram et al (1985), who showed that depressed undergraduates were unable to process positive self-referent information as effectively as non-depressed undergraduates.

Significant others have also been demonstrated to be important sources of self-esteem in children, in particular peer groups. Kirchner and Vondraek (1975) demonstrated the prominence of child friends as sources of esteem, outweighing even children's parents. 52% of the 282 child sample included friends on a 'Who Likes You' scale, as opposed to 46 % for mothers and 33% for fathers. In children aged 9-13, Burnett and McCrindle (1999) demonstrated a relationship between significant others' (including teachers) positive and negative statements and self-esteem, and Burnett and Demnar (1996) demonstrated sex differences in self-esteem that were dependent on closeness to class teachers. The contribution of significant others to the developing self-esteem of an individual has also been demonstrated in adolescents (Lackovic-Grgin & Dekovic, 1990).

What relevance does the research on significant others have for the current investigation? Firstly, the idea of teachers as significant others is now more relevant than ever. At the beginning of the twenty-first century, more parents than ever before are working full-time, and their educational and pastoral responsibilities are being filtered slowly back to their children's teachers. As such, teachers are now more 'significant' than ever before. Whilst this has the potential for great positive influence on children, this may not be the case. The debate over the validity of dyslexia as a disorder, outlined in 1.1, is still, surprisingly, raging beneath the surface in some schools. Further, most initial teacher training reveals very little about the nature of dyslexia to trainees (BDA, 1998), and as a result many mainstream teachers are poorly informed. As we shall see in section 3.6.3, there are established links between teachers' and parents' awareness of dyslexia and the child who is dyslexic's self-esteem. On a more general level, the 'need to achieve' ethos of Western

schooling leaves little room for those children, like dyslexic learners, whose different learning style leaves them behind the rest of the group. As a result, labels such as 'lazy', 'unmotivated' and 'failure' may be applied to these children all too quickly by adults who hold a great deal of power and influence over them.

3.2 Academic Achievement

The degree to which self-perceptions enter into academic achievement has been the subject of a great deal of research in recent years. As we have seen in section 2.5.3, failure to achieve in certain 'responsibility assumption skills' can be detrimental to self development, and such skills are more often than not measured as part of our early schooling. The relationship, however, is largely agreed to be *bi-directional*: school achievement influences self-perceptions and self-perceptions influence school achievement, although it must be noted that a high self-concept alone is not sufficient to produce high achievement (Beane & Lipka, 1986; Kurtz-Costes & Schneider, 1994). Burns argues that children enter school with a predisposition towards achievement or failure already fertilised by the "qualities of parental interest, love and acceptance offered them" (1982, p.201). This predisposition can be pervasive, and authors such as Glasser (1969) have argued that our whole schooling system is dichotomised between those who identify with success and control, and those who identify with failure and unpredictability. This has been validated to an extent. Flynn (1991) looked at the relationship between locus of control, self-concept and (later) academic achievement in pre-school children, and found that both constructs were significantly related to achievement; that is, children who had an external locus of control or low self-concept were more likely to fail to achieve.

The notion of a relationship between academic achievement and the self carries some intuitive logic. Firstly, as we know from the work of Secord and Peevers (1974, in Gurney, 1988), it is whilst at school (around 7-8 years of age) that children's self-concept statements shift from the absolute to the comparative. School provides a number of sources for comparison. Secondly, school provides a new feedback agent, in the form of the teacher. Thirdly, as the child strives towards mastery of responsibility assumption skills (see 2.5.3), school provides a context in which evaluation of such skills is pervasive, continuous and systematic (Burns, 1982). The

joy of success and the pain of failure have been experienced many times before reaching school, but it is only upon entering the classroom that a public record of the child's progress begins to accumulate. Schools put a high value on academic achievement, and this increasingly becomes the yardstick by which children judge themselves (Gurney, 1988).

The evidence that demonstrates a relationship between the self-concept and academic achievement is too vast to discuss in detail, and so a few examples will be used for clarification purposes. In a famous early study, Brookover, et al (1965) found a significant correlation between self concept of ability (in school) and academic achievement among 1,050 children, even when IQ was controlled. Cassady et al (1997) found that children's 'language arts' and 'maths' self-concepts were significantly inter-correlated with academic achievement in these areas, teacher ratings, and parental ratings. In attempting to define the causal direction of the relationship, Hoge et al (1995) conducted a two year longitudinal study of 322 children, and concluded that influences of self-concept on grades were weak, but grades had a modest influence on self-concept. However, it must be noted that the latter study did not attempt to differentiate between the different dimensions of self-concept, and this may have influenced the results. Byrne (1998) investigated causal predominance between different areas of academic self-concept and academic achievement in 290 students, and found a clear flow from achievement to self-concept for a) general academic self-concept/achievement, and b) maths self-concept/achievement. Interestingly, in English, a reverse pattern was demonstrated. Finally, Trusty et al (1996), studying 563 African American students, found that social self-concept accounted for a significant amount of variability in achievement test scores, whereas school-related self-concepts *did not*! Further studies, e.g. Kurtz-Costes & Schneider (1994), have found positive relationships between self-concept, achievement and attributional style. That is, those with good academic results are more likely to have high self-concepts, and are likely to attribute their success to internal factors such as ability.

What is the relationship between self-esteem and academic achievement? One would assume there is a strong, interactive one since children are taught at an early age that achievement in school is important. In order to satisfy the expectations of

significant others such as teachers and parents, children are required to achieve in as many academic areas as possible. Burns (1982) makes the point that as adults, we generally have some choice in which tasks we perform, and thus can avoid those that we are weak at, but as children, we are required to do everything! Thus, children inevitably encounter both failure and success in a number of different domains, and begin to judge their self-worth accordingly. Evidence of this, as with the self-concept, is abundant. Kinney and Miller (1988) compared 10 highly successful (as determined by grade point averages) and 10 'remedial' students. A significant difference was found with remedial students scoring lower on a self-esteem inventory. Liu et al (1992) investigated achievement and general self-esteem, and as with self-concept studies, a bi-directional relationship was found. The authors also indicated five intervening variables which mediated the causal effect: deviance, motivation, psychological distress, illness and absence. Khalid (1990) found similar results, and also found significant ethnic and gender differences. Investigating specific aspects of self-esteem, Newbegin and Owens (1996) found academic esteem (maths and verbal esteem) to be positively related to academic achievement in mathematics and English. Finally, as with Kurtz-Costes and Schnedider's (1994) self-concept work, both Belgrave et al (1992) and Skaalvik (1990) found relationships between self-esteem, achievement, and attributional style.

The relationship between academic achievement and self-concept/self-esteem is particularly relevant to the current investigation. As we have seen, there are a number of factors at work which mean that children with dyslexia are likely to experience failure in academic situations more so than their non-dyslexic peers. Firstly, there is the Western emphasis on achievement in literacy, particularly in the early years, where this is deemed to be the most crucial skill children acquire. Our society's tendency to look down on those who do not acquire such skills can lead to stigmatisation and spoiled identity (see 2.5.4). Secondly, the way in which children with dyslexia learn is at best radically different from their 'normal' peers. As such, they are likely to fail simply on the basis of inappropriate teaching strategies. This is further compounded by the poor awareness of dyslexia (see 3.1) that pervades many mainstream institutions (if we are not aware that a child is dyslexic, we cannot apply appropriate teaching strategies!). Such factors may combine to produce a circular relationship where the dyslexic child's failure to achieve produces low self-

concept/self-esteem, which in turn affects his/her motivation and/or ability to achieve in the future. As previous theorists have shown (see 2.2-2.3), our concept of self is updated and modified on the basis of experience, and this determines the nature and direction of future behaviour.

3.3 Parental Behaviour

Parents play multiple roles in the developing self-concept and self-esteem of the child, not least as 'significant others' (see 3.1). However, research into parental behaviour and the developing self is fraught with difficulties, as "most studies use small numbers of subjects, instruments of unknown reliability and validity and depend on children's and parents' retrospective reports which are notoriously biased, distorted and badly remembered" (Burns, 1982, p.69). Two seminal self-esteem studies (Rosenborg, 1965; Coopersmith, 1967) have managed to escape such criticism, and have drawn conclusions on parental factors which have been validated by more recent research.

Both Coopersmith and Rosenborg identified *parental involvement* (healthy involvement as opposed to intrusive involvement) as being perhaps "the single most important parental or primary caregiver attitude affecting the development of self-esteem in children" (Mruk, 1999, p.72). Indifferent, or frequently absent, parents who took little interest in their child's education tended to have children with low self-esteem, especially if the child was male. This has been supported by recent findings (e.g. Miller, 1984; Clark, 1994, in Mruk, 1999). However, mere involvement is not enough; the level of *parental warmth or acceptance* is also crucial. This is difficult to define in behavioural terms, but is akin to what Rogers (1951) described as 'unconditional positive regard' – accepting the person for who they are. Thus, parents who accept their child's successes and failures, and strengths and weaknesses, are more likely to have children with high self-esteem.

A third factor in parental behaviour identified in Coopersmith (1967) and Rosenborg's (1965) studies was centred around expectations. Clearly defined expectations and limits were associated with developing high self-esteem in children. The logic behind this finding is simple: setting goals lets the child know what forms

of behaviour are desirable and 'worthy', but of course, these goals must be realistic, and setting reasonable limits averts destructive, narcissistic behaviour (Yamamoto, 1972; Cordell, 1999; see 2.5.1). Further factors included respectful, democratic treatment within the family unit, and consistency in behaviour and attitudes toward the child.

What facets of parental behaviour might be of importance to the current research? Firstly, as we have seen (3.1), parents are significant others, and as such have the power to help their child's self-concept and self-esteem bloom or wilt. Parental involvement with children, however, is low – more parents are working than ever before, and have less time to attend to their children. Parental expectations of children remain though, and in the case of children with dyslexia, messages given about what is 'desirable' and 'worthy', especially in terms of 'responsibility assumption skills' and academic achievement, may provide unrealistic goals, facilitating low self-esteem and self-concept. This will particularly be the case in families where awareness and understanding of dyslexia is low (Rosenthal, 1973; see 3.6.3).

3.4 Teacher Expectation

Expectancy effects can be conceptualised well in an anecdote by H. F. Lowry called 'The Mouse and Henry Carson'. In the story, a mouse chews the wires in a school computer just as some exam results are being input. Data on Henry Carson, a mediocre student, is changed by the faulty computer so that he is given high scores. Teachers reassess his potential, and he responds by developing both as a student and as a person, becoming the embodiment of the 'self-fulfilling prophecy' (Burns, 1982). The story illustrates the ways in which children's views of themselves can be influenced by the ways in which others respond to them (see 3.1) and the expectations that are engendered in them.

Why might teacher expectation have such an effect on self-concept, self-esteem and academic achievement? Firstly, teachers are significant others, and as such have the ability to shape a child's perception of him/herself. Secondly, teachers are considered to be 'experts' in education, and thus their level of expectancy is usually

taken as being a true reflection of a child's potential. Expectancy effects complete the cycle between teacher input and pupil output (Burns, 1982), and the evidence is abundant. In a classic study by Rosenthal and Jacobson (1968), teachers in an elementary school were falsely told that a test given to pupils recently had identified several 'bloomers' – children who could be expected to make unusual learning gains. After a year, the IQs of all children were assessed, with the 'bloomers' having gained significantly more IQ points than the control children. Rosenthal and Jacobson interpreted this increase as a direct result of the expectancy effect:

“Teachers... have treated their children in a more pleasant, friendly, and encouraging fashion when they expected greater intellectual gains of them... Such communications together with possible changes in teaching technique may have helped the child to learn by changing his self-concept image, his expectations of his own behaviour, and his motivation, as well as his cognitive style and skills.” (1968, p.180)

More recent work has borne out Rosenthal and Jacobson's findings. Rampaul et al. (1984) found significant positive correlations among self-concept, academic achievement and teacher expectations. This was also the finding of Smith (1988) and Liu and Yao (1996). It is suggested that the expectancy effect can be communicated both verbally and non-verbally, and can be a powerful tool in raising and lowering self-concept and self-esteem (Burns, 1982). Teacher expectancies for children with dyslexia are likely to be influenced by their understanding of the disorder, and this brings us back yet again to the debate over validity (see 1.1) and the level of input in initial teacher training. A teacher without specialist training, even if he/she regards dyslexia as a valid condition, is still likely to perceive children with dyslexia as inferior (as opposed to 'different') learners, and this will no doubt be communicated to the child.

3.5 Institutional Features of School

The author acknowledges that the content of this section is unlikely to do justice to what is an enormous field of research. However, in the interests of keeping the text

concise and relevant, it was decided that a brief overview would be of greatest benefit to the thesis as a whole.

The institutional features of a school, such as the climate, rules and regulations and so on, are influences on the developing selves of the children within them. Whilst it cannot be argued that there is a model of school that will promote positive self-concept and self-esteem, for as we have seen, these constructs are influenced by many factors, and are always idiosyncratic to an extent, it is impossible to ignore the fact that schools make persistent suggestions of behaviour, academic and social standards. As such, they can be considered a 'significant other' for as long as the child regards schooling as important (Beane & Lipka, 1986).

The term *climate* refers to "the atmosphere or milieu that permeates or underlies all of the transactions and interactions that take place in the school setting" (Beane & Lipka, 1986, p.30), and two main types have been identified. Custodial climate is characterised by maintenance of order, student stereotyping or labelling, moralising by authorities and so on. Humanistic climate is characterised by preference for democratic procedures, high degrees of interaction and a respect for individual dignity (Beane & Lipka, 1986). Not surprisingly, research has shown that more favourable school climates (those that approach the humanistic ideal) can foster more positive self-perceptions in students (Hoge et al, 1990).

Other institutional features such as teaching approaches and disciplinary policies and regulations have been studied in attempts to derive possible effects on self-perceptions. Again, the literature is vast (see Burns, 1982, for a full review), and so only the main findings are outlined here. Briefly, as regards teaching, the more 'child-centred' the approach, the more positive impact on the child's self perception. Likewise, the more transparently fair the regulations of the school, the more likely that its pupils will develop appropriate internal standards of behaviour and conduct (Burns, 1982).

The current educational climate is pushing schools to be more 'dyslexia friendly'. As awareness of the ways in which we can help those with dyslexia increases, some schools are doing more to change their features so that they are better suited to the

needs of dyslexics. Pollock & Walker (1994) and the British Dyslexia Association (1998) have suggested features of schools that are more amenable to dyslexic learners (see Table 5):

Features of Dyslexia Friendly Schools
- close liaison between specialist teacher and class teacher;
- high level of awareness in class teacher;
- good communication and participation between child, teacher and parents;
- specific classroom arrangements (i.e. room layout, labelling of equipment);
- use of IT as a resource;
- set ability appropriate targets based on National Curriculum descriptors, monitor progress and intervene if necessary;
- transparency in whole school marking schemes to allow demonstration of skills;
- employ multi-sensory teaching strategies;
- encourage classroom participation (but only if this is not distressing);
- clarify instructions and ensure all children understand before proceeding;

Table 5. Features of the ‘dyslexia friendly’ school.

All of these features combine to create a school ethos that values dyslexic learners as equals to their peers. Lack of such features undoubtedly increases the chance that children with dyslexia will view themselves as inferior, and their learning will suffer.

3.6 Learning Difficulties

The self-perceptions of children with learning difficulties have been of particular interest to researchers in the last twenty years (Gurney, 1988). However, there are differing assumptions relating to this issue which have led to contention. A common notion is that children with learning difficulties, because of the problems they face, will have lower self-perceptions than their ‘normal’ counterparts. Given the evidence outlined above, this seems logical. Children with learning difficulties, for one reason or another, depending on the nature of their difficulty, tend not to achieve academically at the same level as their classmates, affecting their sense of

competence. This in turn could lead to lower feelings of self-worth (Cordell, 1999). Also, as discussed earlier (3.2 and 2.3.2), at a certain age, children's self-related statements shift from the absolute to the comparative. Comparing themselves with their peers may be a source of lowered self-perceptions. Further, it is a sad fact that children with learning difficulties are less likely to be accepted by their peer group, and are sometimes bullied (Eaude, 1999). Research has demonstrated the effect which bullying and lack of acceptance can have on self-perceptions (Neary & Joseph, 1994; Lowenstein, 1995; Sharp, 1996; O'Moore, 2000). However, there is an argument for suggesting that there will not be a demonstrable difference between those with and without learning difficulties, because of the effects of intervening factors. Children with special educational needs generally receive more attention and resources at school, and some have suggested that this would contribute to normal self-concept and self-esteem (Gurney, 1988). Early research in the area (e.g. Richardson et al, 1964; Wylie, 1979) seemed to support this, with Wylie concluding that, "...evidence of a severe impact of retardation on overall self-regard is not at hand" (1979, p.407).

More recent research into the self-concept and self-esteem of children with learning difficulties has tended to support the former argument, but the issue is far from clear-cut. Important factors appear to be the nature of the child's difficulty and the nature of placement the child receives (i.e. mainstream, unit, special school).

3.6.1 Integration and Placement

The issues surrounding the place of children with additional needs in the education system have never been less than contentious. However, the emphasis has generally been on the effects on learning which different placements produce, and rather less on personality issues. What little research there has been, however, is extremely enlightening in the context of the current educational climate. Early studies suggested that segregation enhanced the self-esteem of children with special needs (see Gurney, 1988, for a full review). It is suggested that these results may be attributable to such factors as increased attention and resources, specially trained teachers, and the opportunity for realistic comparison (see 3.6). More powerfully,

research on children integrated into mainstream schooling has pointed to lowered levels of self-esteem (Towne & Schurr et al. 1972; Crozier et al. 1999).

Children with learning difficulties who attend special units attached to mainstream schools provide an interesting source for comparison in the debate about integration. Interestingly, the evidence is similar to that presented for children who are integrated on a full-time basis. Leondari (1993) looked at 424 3rd – 6th grade children in a mainstream school, including a sample who attended a special needs unit. Children in the special class “rated themselves more negatively than their normally achieving peers on both academic self-concept and global self-worth” (Leonardi, 1993, p.357). The special needs group also rated themselves more negatively on academic self-concept than a *low achieving* group. Wade and Moore (1992) have suggested that pupils in special units in mainstream schools feel isolated from their peers, especially if they live outside the school catchment area, and that this may contribute to feelings of low self-worth.

Despite the strong evidence that points to more positive self-perceptions following segregation, several points need to be considered. Firstly, much of the research that supports segregation in this context was performed twenty years ago, with the exception of Crozier et al. (1999), and the educational climate is vastly different now. Government intervention through the 1993 Education Act and the 1994 Code of Practice has improved the awareness of, and provision for, children with special needs, and integration into mainstream education can now be successful on both an academic and personal level. As Wade & Moore point out:

“... those with special educational needs, who are integrated into mainstream schools, should have opportunities to develop socially and academically by having full access to the curriculum. For example, if all students are allocated to classes in the same way, distinctions between those with special educational needs and others may be minimised... Positive attitudes towards students with special educational needs are essential, if they are to feel accepted members of their school and the wider community” (1994, p.161).

A second issue to be considered is that very little distinction has been made in the segregationist research amongst the different types of learning difficulty. As with the wider argument about the inclusion of children with special needs, one must consider the *nature* of a child's difficulty. In relation to self-concept and self-esteem, this has significant implications.

3.6.2 Do Different Difficulties Have Different Effects on the Self?

Given that the self is multidimensional and hierarchical, it seems logical to assume that different types of special educational need might have different effects on the developing selves of children. Indeed, the development of more sophisticated measures of the self has enabled us to look very closely at its different dimensions. However, there has been relatively little research in this area, and most studies have concentrated on global self-concept or self-esteem. For example, research into children with moderate learning difficulties has shown low levels of global self-esteem (Barrett & Jones, 1996). This is not surprising, since such children generally have difficulties in several areas, including learning and social skills. An example of specific self-esteem deficits is seen in children with emotional and behavioural difficulties, who have been found to have low self-perceptions in the social self dimension (Margerison, 1996). Again, this is no surprise, since social maladaptation is fairly symptomatic of emotional-behavioural difficulties (DFE, 1994). The effects of such difficulties at various levels provides support for authors such as James' (1890, 1892) and Mead's (1934) notions of multidimensionality of the self, but there is a distinct lack of similar research.

3.6.3 Dyslexia: Effects on the Self

As with most types of learning difficulty, research into dyslexia has concentrated on causation and treatment. More recently, as the links between self-esteem, self-concept and academic achievement, social acceptance and learning difficulties have been established, some researchers (e.g. Riddick, 1996; Edwards, 1994) have begun to look at the 'bigger picture'. Dyslexia provides us with an exemplar of how learning difficulties can affect many other areas than just learning, and yet there is still a paucity of published work.

As long ago as 1917, Hinshelwood hinted at the personal, social and emotional effects which dyslexia could have on a person:

“It is a matter of the highest importance to recognise the cause and true nature of this difficulty... which is experienced by these children, otherwise they may be harshly treated as imbeciles, and either neglected or punished for a defect for which they are in no way responsible” (1917, p.42-43).

Although Hinshelwood did not carry out specific research to establish non-academic consequences of dyslexia, his comments reveal an important message: if we do not gain a true understanding of dyslexia, then we are likely to harm those who suffer from it, both academically and personally. However, it is only in the last twenty-five or so years that researchers have begun to look at personal effects. Rosenthal (1973) undertook a study into the development of self-esteem in children with dyslexia. He administered the Coopersmith Self-Esteem Inventory to children in the following groups: a) children with dyslexia who came from families with some understanding of the child's difficulties, b) children with dyslexia who came from families with no understanding of the child's difficulties, c) normal children, and d) children with asthma (who would provide an alternative control group, since they were also suffering from a 'diasability', but a well-understood one). Rosenthal's results showed that children with dyslexia had lower self-esteem than normal and asthmatic children, and that those children with dyslexia from families with no awareness of the problem had lower levels of self-esteem than those whose families were better informed.

Thomson and Hartley (1980) used several measures to assess the self-concept and self-esteem of children with dyslexia. Importantly, this was the first study to begin to look at the specific as well as general dimensions of self in relation to the learning difficulty. As one might expect, both overall self-esteem and academic self-esteem were significantly lower in children with dyslexia than in a control group of 'normal' children. Thomson and Hartley also found differences between the groups in the association of constructs, as measured by the Kelly Grid (1955). For example,

children with dyslexia showed a significantly higher correlation between 'good reading ability' and 'happiness', i.e. children with dyslexia associate being a good reader with being happy more than children without dyslexia do.

Following the initial promise of Rosenthal's (1973) and Thomson and Hartley's (1980) work, there has been little replication or development of research that addresses the self in relation to dyslexia. One exception is Thomson (1990, in Riddick, 1996), who tested the self-esteem of children with dyslexia who had attended a specialist school for 18 months, 6 months or were at interview stage. Results indicated that children who had been at the specialist school longer had higher levels of self-esteem. In addition, the most significant gains were made in social self-esteem (followed closely by academic self-esteem), suggesting that the major source of low self-esteem for these children was the mainstream environment and their sense of failure in comparison with their peers (Thomson, 1990, in Riddick, 1996).

The most recent work on the non-academic consequences of dyslexia has concentrated on social and emotional effects. Edwards (1994) has provided eight retrospective case studies demonstrating the emotional 'scars' which dyslexia can cause, especially when it is poorly understood by those who come into contact with the child. Riddick (1996) interviewed 22 children with dyslexia, along with their parents and teachers, and found that children with dyslexia felt "disappointed, frustrated, ashamed, fed up, sad, depressed, angry and embarrassed by their difficulties" (Riddick, 1996, p.129). Moreover, around half the children had been teased about their difficulties, and many had had bad experiences in mainstream education involving teachers who were ignorant of, or did not acknowledge the existence of, dyslexia.

3.7 Important Themes in the Context of the Current Research

Before the current research is introduced, it is important to draw out the major themes from the literature that are to be considered or addressed. Beginning with the disorder itself, it is important to consider the variability of manifestations it produces, and the implications which this has for conducting any study purporting to include

subjects with 'dyslexia'. The current author hopes to resolve any confusion or difficulty by providing a clear, working definition of dyslexia (see 1.1) and adopting certain criteria for inclusion of participants in the study (see section 6.4.2). As regards self-concept and self-esteem, the research will be carried out using the definitions provided in 2.1. Results will be interpreted using the theoretical assumptions outlined throughout Chapter 2. Primarily, it is to be assumed that both self-concept and self-esteem are learned constructs, and represent the accumulation of interactions between an individual and his/her environment, mainly in a social context. Therefore, the research will consider the social environment of the subjects as well as their self-perceptions. Self-perceptions are assumed to be multidimensional and hierarchical, although at one level they will blend into a general sense of self. Thus, the current research will use instruments which provide global and specific measures of self-concept and/or self-esteem.

In the educational context, the literature has shown (see 3.6.1 and 3.6.3) that educational placement has an effect on the developing self of the child. However, this matter is unresolved, and as such is a factor that will be considered in the current research. The influence of significant others has been shown to be of paramount importance (see 3.1), and as such the influence of such figures as teachers needs to be considered. In relation to the unresolved matter of the specifics of self-concept and self-esteem deficits in children with differing learning difficulties, sophisticated instruments are available (e.g. Marsh, 1990) that can probe domains accurately, and research needs to be carried forward in this way.

3.8 Introduction to the Research

The aim of the research is to investigate self-concept and self-esteem in children with developmental dyslexia. Specifically, the research will address whether dyslexia produces deficits in self-concept and self-esteem, and whether these deficits are global or domain specific (or a combination). Differences in self-concept and self-esteem between children with dyslexia in mainstream education and those attending specific learning difficulties units will also be investigated. A number of related factors will be considered, including the attributional style of the subjects in relation

to academic success and failure (see 3.2), and their association of personal constructs (see 3.6.3).

The rationale behind the research has been elucidated in the preceding text, but is summarised briefly here for the sake of clarity and conciseness:

- Despite a barrage of anecdotal evidence from teachers and practitioners over the past two decades, researchers have given little attention to self-perceptions in children with dyslexia. To date, only a handful of studies have been published (e.g. Rosenthal, 1973; Thomson & Hartley, 1980) in the area, and none has been on the scale proposed (see Table 26, chapter 7). The mismatch between anecdotal evidence and systematic research suggests that a large-scale study is long overdue.
- Empirical evidence has shown an effect on self-concept and self-esteem of other learning difficulties (Barrett & Jones, 1996). It would be naive to assume that dyslexia is unique in this context.
- Research has shown links between self-concept, self-esteem and academic performance, and it is already established that children with dyslexia, because of their difficulties with reading, spelling and written language, can experience problems in academic achievement (BDA, 1998).
- There is research linking peer acceptance and social relationships to academic performance (Wentzel & Caldwell, 1997). These aspects are crucial in the formation of the self-concept, and there is evidence that children with dyslexia experience problems in these areas (Riddick, 1996).

4

Methodology

Life is complex, and the world is far from perfect. The diversity of people who constitute our society sometimes seems limitless, and the practitioners who work in the fields of education and other disciplines do not always know the best ways to educate the groups of children and young people they come across. This is where educational research has found a niche. *'What is the most efficient teaching and learning method for children on the autistic spectrum?'* *'How might we structure our education system so that we can include those with special needs into the mainstream classroom?'* These and many other research questions have been asked by researchers hoping to improve the education and quality of life of children across the world. Educational research is concerned with improving practice in our schools, and as such is a crucial factor in the journey towards 'excellence for all' (DFEE, 1997).

Educational researchers and practitioners are more often than not caught up in a vigorous debate about the research that is being conducted. Indeed, at a general level, the entire research community is in what Hammersley (1993) calls a 'recurrent crisis'. The crux of the debate over educational research centres on how useful the research that is conducted actually is. Critics of educational research, including Hargreaves (1996a, 1996b) have argued that the fact that researchers, not practitioners, set the agenda for what is to be investigated, is a 'fatal' flaw. They suggest that there is a considerable amount of:

“frankly second-rate educational research which does not make a serious contribution to fundamental theory or knowledge; which is irrelevant to practice; which is uncoordinated with any preceding or follow-up research; and which clutters up academic journals that virtually nobody reads.” (Hargreaves, 1996a, p.7)

Such comments have provoked lively debate in the educational press and professional journals, and have been criticised in many quarters for being produced “on the basis

of very limited and inadequate information” (McIntyre, 1997, p.129). As a result of such debate, the governing authorities (chiefly the DfEE and other governing bodies) are currently rethinking the way in which the educational research agenda is set (Tooley & Darby, 1998). In the meantime, those of us conducting educational research at least have a set of criteria to keep in mind when we ask our research questions:

- Will this research make a serious contribution to fundamental theory or knowledge?
- Will this research be relevant to practice?
- Is this research co-ordinated with any preceding or follow-up research?

In terms of the current research, one assumes that these criteria have been, or can be fulfilled. The project is drawn from various preceding investigations (i.e. Rosenthal, 1973; Thomson & Hartley, 1980; Riddick, 1996), and will spawn follow-up research, subject to funding. Having already extrapolated the links between the self and various educational factors (see Chapter 3), the current author is hopeful that the results of this investigation will produce important implications for teaching and learning practice in dyslexia. Finally, the research will also contribute to the growing body of knowledge concerning self-concept and self-esteem in children with special educational needs.

4.1 What is Research?

As in the preceding chapters, it is important to begin by clarifying terms. The distinction between what is and is not research, as well as the different types, is significant when we look at the history and nature (4.2 onwards) of the topic in question.

Research at a generic level is “one of many ways of knowing or understanding” (Mertens, 1998, p.2). Unlike other ways of knowing (such as divine inspiration or insight), research is a process of systematic enquiry, designed to collect, analyse, interpret and use data to understand, describe, predict, control or empower. Within

the boundaries of what is known as research, it is possible to make an initial distinction, between the *empirical* and the *non-empirical*. The *empirical* refers to research in which data is collected, used and interpreted through one or more acceptable *instruments* (e.g. observation, interviews, or experiments). The *non-empirical* refers to that which is not based on gathering new empirical data, but rather on (for example) developing theories, and/or summarising, elaborating or critiquing earlier literature/research (Tooley & Darby, 1998). Clearly, there is often a great deal of overlap between the two, since, for example, any empirical research will set its context with a literature review, by definition a non-empirical concept.

Within empirical research, there is an important, if simplistic, dichotomy between the *quantitative* and the *qualitative*. Quantitative research “refers to studies whose findings are mainly the product of statistical analysis” (Shaugnessy and Zechmeister, 1994, p.22). It is typically conducted using experimental or quasi-experimental techniques, although there are a multitude of other quantitative instruments. Qualitative research involves the gathering of information to explore the “significance, meaning, impact, individual or collective interpretation of events” (Wragg, 1994, p.9) and attempts “to probe beneath the surface of events, to elicit the meanings sometimes deeply buried” (Wragg, 1994, p.51). The data of qualitative research are most commonly obtained from interviews and observations, although again, there are a multitude of other instruments available (Shaugnessy & Zechmeister, 1994). However, this dichotomy, whilst functional, is too simplistic. As with the *empirical* and the *non-empirical*, there is often a great deal of overlap. Also, more importantly, both types of research are embedded in paradigms that go beyond a simple clear-cut dichotomy. In order to understand fully how these paradigms have influenced modern research, we must look closely at their philosophical roots.

4.2 Major Paradigms in Research

The history of research reveals three major paradigms, or ‘ways of looking at the world’. However, as with our previous discussions, the distinctions between them are not always simple. The dominant paradigm which has guided educational and psychological research has been *positivism* (and its successor, *postpositivism*) (Mertens, 1998). The second major paradigm represents a direct reaction to the flaws

associated with the positivist view, and is commonly referred to as the *interpretive* or *constructivist* perspective. Finally, (and most recently in terms of development) the *emancipatory*, or critical theory (Fay, 1993) paradigm emerged through growing dissatisfaction with the fact that much of sociological and psychological theory had been developed from the white, able-bodied male perspective, and was based largely on the study of male subjects. As with any major movements or schools of thought, there are a number of associated, and often interchangeable terms, and for the sake of clarity these are presented in Table 6:

Positivism/Postpositivism	Interpretive/Constructivist	Emancipatory
Experimental	Naturalistic	Critical Theory
Quasi-experimental	Phenomenological	Neo-Marxist
Correlational	Hermeneutic	Feminist
Causal comparative	Symbolic interaction	Race specific
Quantitative	Ethnographic	Freireian
	Qualitative	Participatory
		Transformative

Table 6. Labels commonly associated with different paradigms (adapted from Lather, 1992).

4.2.1 Positivism/Postpositivism

Positivism has been a recurrent theme in the history of western thought from the Ancient Greeks to the present day (Cohen & Manion, 1994). However, it is most commonly associated with the French philosopher Auguste Comte (1798-1857), who first adopted the term to describe his philosophical position. Other notable positivists include Aristotle (384-322 BCE), Francis Bacon (1561-1626), John Locke (1632-1704), and Emmanuel Kant (1724-1804). The basic tenet of positivist thought is that the social world can be studied in the same way as the natural world – through value-free, objective experimental study (Mertens, 1998; Cohen & Manion, 1994; Leahey, 1997). The establishment of causal relationships between observable variables is paramount in positivist philosophy. The emphasis on acceptance of natural science as

the paradigm of human knowledge led positivists not only to adopt its methodological procedures, but also to adopt the means of analysis. Thus, positivist analyses “must be expressed in ‘laws’ or ‘law-like’ generalisations of the same kind that have been established in relation to natural phenomena” (Cohen & Manion, 1994, p.12). The ontological viewpoint of the positivists provides yet another example of the influence of natural science. Positivists believe that there is one knowable reality, and that the researcher’s job is to discover that reality. In epistemological terms, positivists ascribe to the position that research must be completely objective, and that the researcher and subject are independent.

Postpositivists, accepting the constraints of the positivist philosophy, have modified several aspects. Firstly, the ontological belief of a singular knowable reality is accepted, but postpositivists state that it can only be known imperfectly, because of the researcher’s human limitations (Mertens, 1998). Thus, researchers can discover a reality within a certain realm of probability. Nothing can be *proven*, but a stronger case can be made by eliminating alternative explanations. This philosophy is echoed in the adoption of statistical significance as a means for drawing conclusions (we accept something as real if it happens by chance 5 times or less in 100, as indicated by statistical tests) and in the stringent experimental control, which Herzog (1996) has referred to as the the most sophisticated goal in research, that has dominated postpositivist research. Secondly, postpositivists accept that the theories, hypotheses and background knowledge held by a researcher can strongly influence what is observed (Reichardt & Rallis, 1994), and thus objectivity is a goal to strive for rather than a prerequisite of research.

4.2.2 Interpretivism/Constructivism

Interpretivism/constructivism arose through questioning of the underlying assumptions and methodology of positivism. The current author has chosen to use this label, as opposed to other popular terms (such as ‘naturalism’), because it reflects the central tenet of the philosophy – that is, reality is socially constructed. As such, there can be multiple mental constructions of reality (some of whom may conflict each other) which are subject to change over time. The paradigm grew out of the philosophy of Edmund Husserl’s phenomenology and German philosophers’ study of

hermeneutics. This is 'interpretive understanding' – used most commonly by researchers interpreting historical documents to try and understand what the author was trying to communicate within the time period and culture in which he/she lived (Mertens, 1998). The interpretive/constructivist viewpoint is conceptualised neatly by Beck:

“The purpose of social science is to understand social reality as different people see it and to demonstrate how their views shape the action which they take within that reality. Since the social sciences cannot penetrate to what lies behind social reality, they must work directly with man’s definitions of reality and with the rules he devises for coping with it. While the social sciences do not reveal ultimate truth, they do help us to make sense of our world. What the social sciences offer is explanation, clarification and demystification of the social forms which man has created around himself.” (1979, in Cohen & Manion, 1994, p.26)

Constructivist researchers attempt to understand the world of lived experience from the point of view of those who live it (Schwandt, 1994), and as such represent a direct theoretical opposite to the positivist approach. In terms of epistemology, the paradigm permits that the inquirer and ‘inquiree’ are locked in an interactive process, with each influencing the other. Instead of emphasising objectivity, constructivist researchers concentrate on *confirmability*, the notion that “data, interpretations, and outcomes are rooted in contexts and persons apart from the researcher and are not figments of the imagination. Data can be tracked to its sources, and the logic used to assemble interpretations can be made explicit in the narrative” (Mertens, 1998, p.13).

The methodological implications of the constructivist paradigm affect both the choice of instruments and the research process. Constructivism emphasises multiple realities, and as such research designs often incorporate instruments where several points of view can be gathered, including interviews, observations and document reviews. Such instruments, with the possible exception of the document review, also allow for varying degrees of interaction between the researcher and the subject(s). Further, the research questions are not always definitively established prior to the

beginning of the study. Rather, the study process opens up questions to be answered, and the process is one of evolution.

4.2.3 Emancipatory Paradigm

As already stated, the emancipatory paradigm emerged because of dissatisfaction with the dominant research paradigms, the main criticism being that supposedly 'neutral', objective studies contained extreme biases in their design. Emancipatory theorists also criticised the constructivist paradigm on the basis that researchers consisted of "a relatively small group of powerful experts doing work on a larger number of relatively powerless research subjects" (Mertens, 1998, p.15). The faults of the major paradigms have important implications for conducting educational research. The increase in deprivation and ethnic diversity in the total school-age population has contributed to an increased interest in multicultural education (Banks, 1993), in turn leading to an increase in research by people from minority groups (who both understand and care for the people they are conducting research on). Such researchers have begun to dispel commonly held 'myths' about differences in school achievement by gender, race, class and disability, by identifying important influences such as differential treatment in class, parental and teacher expectations, and experiences outside school (Campbell, 1989).

Mirroring the diversity of the populations chosen for study, the emancipatory paradigm is broad, and far from a unified body of work (Mertens, 1998). As such, it is difficult to pin down the specific ontological and epistemological viewpoints of the paradigm. Like the constructivists, emancipatory researchers recognise the existence of multiple realities, but stress the influence of social, political, cultural, economic, ethnic, gender, and disability values in the construction of reality. The relationship between the researcher and participant is viewed as interactive, and should be empowering to those without power. Thus, emancipatory research often concentrates on the ways in which research can benefit participants.

The methodological guidelines for emancipatory research are by no means set in stone. Indeed, researchers often borrow from the other major paradigms, although they set the research within an emancipatory framework so that sexist, racist or

otherwise biased results can be avoided. It is viewed as essential to involve the participants in the planning, conduct, analysis and discussion of research. As Mertens (1998) states, "A common theme in the methodology is the inclusion of diverse voices from the margin" (p.21).

4.2.4 The Research Dichotomy: Critique

The debate that has continued between researchers from the different paradigms has been considerable, and yet the dividing lines between the camps are not as clearly visible as one would expect. Positivism and postpositivism have been the subject of criticism on many grounds, especially in education. The variables of interpersonal interactions which take place in an educational setting are difficult to quantify or control, and are likely to have significant implications for the outcome of the test situation. The question of ecological validity is raised, and is difficult to ignore – how 'real' are the results of educational research when an artificial situation (such as an experiment) has been created? One of the most distinctive and awe-inspiring features of the educational setting is the sheer complexity of interacting variables which contribute to a particular phenomenon, and to try to 'boil down' these factors to simple 'cause and effect' relationships is naïve; the use of statistical manipulation and scientific reporting reduces reflection on underlying issues to less meaningful outcomes. Further, the 'value-free', objective position that characterises positivist research may be inappropriate and unrealistic, as Guba and Lincoln suggest:

"Values permeate every paradigm that has been proposed or might be proposed, for paradigms are *human* constructions, and hence cannot be impervious to human values. Values enter an inquiry through such channels as the nature of the problem selected for study... the choice of paradigm for carrying out the inquiry, ... the choice of instruments and analysis modes, the choice of interpretations to be made and conclusions to be drawn, and the like." (1989, p.65)

Positivist research is seen by its critics as dehumanising life and mind (Cohen & Manion, 1994), and the quantitative methods used inappropriate for elucidating the circumstances of the human condition. Conversely, positivistic researchers have

criticised the constructivists for “the biasing effects of personal values” (Krathwhol, 1993, p.635) which are used within the paradigm. Indeed, lack of appreciation of research protocols has been widely cited as the major limitation of the constructivist position (Mertens, 1998; Cohen & Manion, 1994). This also applies to the emancipatory paradigm, as Patai describes:

“[the emancipatory paradigm]... effaces any distinction between political agendas and the protocols of research, [and] is in danger of suppressing... any calm, reflective stance that sees some strength in the effort... to set biases aside and that still regards research as a valuable and satisfying endeavour.” (1994, p.62)

As previously mentioned, recent research has seen the dividing lines between the paradigms grow thinner and thinner. Apparent contradictions in methodology have been permitted as the ‘eclectic’ approach to research is embraced. For example, many psychologists carry out research in the positivistic tradition, and yet adopt a constructivist standpoint in their clinical work (Bernard, 2000). Quantitative techniques are often used by researchers as a preamble to a main, qualitative methodology (Mertens, 1998). In increasing numbers, quantitative and qualitative techniques are being used alongside each other to compliment, confirm and/or refute research claims. The main advantage of this eclectic approach, wherein the researcher adopts the standpoint of more than one paradigm (reflected in the instruments he/she uses to measure a phenomenon), is that criticism on a methodological level is not easily attached. The limitations of each approach are ‘cancelled out’, in effect, by the advantages of the others.

4.3 Position of the Current Research

The current researcher has faced several dilemmas in making choices about the methodological direction of the research. *Making choices* is a phrase that has been carefully selected, as it reflects the ongoing process that underpins what we, as educational researchers, face on an everyday basis. As Bell (1997) points out, “research might be best understood as a series of choices” (Bell, 1997, p.17). The choices pertaining to this particular research were numerous. The current researcher’s background is in psychology, and as such all of his previous, unpublished

undergraduate work has been of a quantitative, experimental nature. However, the vast majority of this work pertained *only* to psychology, and in engaging in an investigation of self-concept and self-esteem in dyslexia, we are undoubtedly entering the educational arena. The dilemma which this presents relates to a broad choice about the paradigms discussed in 4.2: should one attempt to incorporate positivistic research traditions into an area of study that is largely constructivist, or should one adapt and change?

The choices to be made are further complicated by the population under investigation. Research on children with dyslexia has traditionally fallen into two related categories: those studies which seek to understand the nature/cause of the condition, and those which attempt to remediate the difficulties faced. The current research aims to provide information for both. Whilst not directly linked to establishing the nature of the disorder, the study will elucidate a 'side-effect'. In turn, this will lead to implications for teaching and learning with dyslexia. This all has important connotations for the way in which the research is conducted. As seen in 1.3.1, studies which have attempted to look into the nature of dyslexia (e.g. Galaburda & Livingston, 1993) have conventionally used the small-scale designs that are associated with qualitative research. However, investigations into intervention and remediation have more often taken the large-scale, experimental approach that characterises quantitative research, as have studies using self-esteem and self-concept scales (see Mruk, 1999).

Since the overall purpose of this research is to make a serious contribution to theory and knowledge about dyslexia (and self-concept/self-esteem), whilst also providing implications for practice, the current researcher has decided to ignore previous traditions and conventions, and instead ask a simple question: *What is the most appropriate way to investigate the self in dyslexia?* After careful consideration, it was decided that no single paradigm, instrument or technique could be relied on to provide the richness of data needed. Instead, following the increasing trend in educational research (see 4.2.4), the current researcher has decided to utilise multiple methods, drawn from the different paradigms (these methods are discussed in Chapter 6). In brief, the main body of data will be drawn from semi-structured interviews with participants. This method is at the constructivist end of the research spectrum

(providing qualitative data), and will be complemented by various causal comparative, quantitative designs which will give the research a structured, objective edge.

The use of multiple methods from differing paradigms is in line with current thinking on the direction that research should take. Authors such as Reichardt and Rallis (1994) and Guba and Lincoln (1994) have argued that postpositivists and constructivists share more compatibility than incompatibility, and suggest the possibility of developing a new paradigm in the future that examines phenomena as much in terms of relativities as absolutes and dualisms, and unapologetically employs a range of the most appropriate techniques for identified purposes.

4.4 Considerations in the Research Process

All researchers have common considerations to keep in mind when designing and conducting a piece of research. The considerations relate not only to observing the correct protocols for research which have been established over the years (such as ethical ones), but also to the accuracy and 'truth' of the instruments used in answering the research question. These will be discussed in turn.

4.4.1 Ethics in Research

Some of the worst atrocities in the history of humanity have been committed under the guise of 'research' (Mertens, 1998). The Nazis' medical experiments, the Tuskegee experiments on African-American men with syphilis, and the CIA's experimentation with LSD are just a few examples. Such 'research' was conducted with a dubious moral code. Ethical guidelines are needed to guard against such obvious atrocities. They are also needed to guard against less apparent, but still harmful, effects of research. Any modern research that aims to achieve credibility must follow an ethical code, either at an institutional (e.g. a university's ethics code) or organisational (e.g. the American Psychological Association (1982)) level. However, ethical decisions can be very difficult to make, and the history of research is full of examples of groundbreaking, yet ethically unsound investigations, the most famous of which are Milgram's (1963) obedience experiments and Haney et al.'s (1973) prisoner and guard simulations.

Although the ethical codes of different institutions and organisations differ, they generally draw from a landmark report by the National Commission for the Protection of Human Subjects in Biomedical and Behavioural Research (1978), which initiated seven principles which have become widely accepted in sound ethical research. The principles apply directly to educational research, and are presented in Table 7:

Principle	Description
Beneficence	Research is done to garner knowledge and illuminate the human condition. It is not done to cause harm to an individual or group. The researcher's aim is to increase understanding and to promote opportunity, quality and advancement.
Honesty	Honesty is essential in the research process. Dishonest manipulation of data is inexcusable.
Accurate Disclosure	Individuals selected for study must be informed accurately of the general topic of research and of the procedures involved in conducting the research. Accurate disclosure is not always synonymous with full disclosure.
Confidentiality*	Individuals selected for study have the right to remain anonymous when the results are reported, and without express permission to the contrary, confidentiality must be maintained
Protection*	Research that places subjects in danger is not allowed, nor is inquiry into personal matters that are considered sensitive (without advised consent of subjects).
Respect	Treating people with respect and courtesy, including those who may not be autonomous (e.g. children, people with senility)
Justice	Those who bear the risk in the research are the ones who benefit from it; procedures should be reasonable, nonexploitative, and fairly administered.

*Legal requirements, as per the National Research Act (National Commission for the Protection of Human Subjects, 1974).

Table 7. Ethical principles in research.

The principle of accurate disclosure is one which has caused controversy, as it relates to the use of deception in research. Whilst deception in research (which is generally associated with the postpositivist tradition) is frowned upon, if it can be justified and 'undone' (by debriefing/dehoaxing) at a later time, it can be accepted (Mertens, 1998). However, this reveals an important contradiction in research (the use of deception to

find truth), and there is little that can be done to undo the harm which results from discovering that you have been duped.

Alongside the principles of ethical research, authors such as Mertens (1998) have presented *norms* that must also be applied if research is to be considered as sound. These are presented in Table 8:

Norms of Research
1. Use of a valid research design: faulty research is not useful to anyone.
2. The researcher must be competent to conduct the research.
3. Consequences of the research must be identified.
4. The sample selection must be appropriate for the purposes of the study (i.e. representative).
5. Participants must agree to the study through voluntary informed consent.
6. The researcher must inform the participants whether harm will be compensated.

Table 8. Norms of research (Mertens, 1998).

4.4.1i Ethical Considerations in the Current Research

The focus of the current research highlights several issues related to the wider field of ethics in educational research. Firstly, the research uses children as the main source of participants. Other than the children used as the control group, all of the child participants have been identified as having a specific learning difficulty (dyslexia), and have (or will have) a statement of special educational need. School-age children are not considered autonomous, and as such parental consent is sought. Children with special educational needs are perhaps more vulnerable to exploitation than other groups, and as such the research instruments were approved by the headteachers of all the schools involved before testing began, and all testing was conducted within earshot of a teacher.

Using children in educational research is a necessary but difficult endeavour. The choice of published instruments to be used in the current research was influenced

largely by their suitability and credibility in terms of the research question, but also by their sensitivity. In some cases (e.g. Marsh's (1990) Self-Description Questionnaire), the language used on the instruments was modified to be more sensitive, and to avoid distress for the child.

Accurate disclosure has fortunately not been an issue in the final research design, since no deception was involved, and a description of the nature and procedures of the research was implemented as part of the process. However, there were issues about protection, since the nature of the inquiry during the interviews was quite personal. To combat any infringements on the privacy of participants, and to stop any possible distress, they were informed that any information they did not wish to disclose would not be recorded. Indeed, they would not be required to answer questions they did not like, and that they could discontinue the interview at any time.

A final consideration in the current research concerns the principles of justice and beneficence. It would be particularly easy for a research project such as this to become merely an exercise in description. The current researcher has therefore placed an emphasis not only on implications for practice, but on actively disseminating the results of the research to those schools involved (via electronic distribution of the thesis), and the wider education community (via publication in academic journals).

4.4.2 Reliability in Research

For research instruments to be useful, they must be consistent. One of the major operational concepts in research is that of *reliability*. Although the definition of reliability in research differs somewhat according to which paradigm one subscribes to, it can be explained as the probability that repeating a research procedure (or method) would produce identical or similar results. Bernard (2000) uses the example of a thermometer: "If you insert a thermometer into boiling water at sea level, it should register 212 [degrees] Fahrenheit each and every time" (Bernard, 2000, p.47).

Errors in measurement can affect the reliability of a research instrument. Mertens (1998) describes three main, unsystematic (i.e. those which cannot be predicted) errors which are common to all types of research: firstly, those within the person being

measured (e.g. motivation or alertness). Secondly, the conditions of the administration of the measurement could change (e.g. different instructions, changing the environment, allowing more time). Finally, changes in the measurement instrument may occur (e.g. changes in the items on the instrument or the behaviours being sampled). Reduction of such errors can be achieved through rigorous control, although this may be considered inappropriate by those outside the postpositivist paradigm.

The reliability of a research instrument can be measured in different ways according to the nature of the instrument itself, and the context of the research. In research designs in which a group of individuals is administered an instrument (for example, a measure of attitudes towards the homeless), it is possible to test for the *coefficient of stability*. This is achieved simply by administering the instrument on two occasions, and producing a correlation coefficient. The higher (closer to +1) the coefficient, the more stable and reliable the instrument is. However, this method of reliability testing carries with it the potential pitfalls of practice effects and remembering items across administrations of the instrument. As an alternative, one can perform a *coefficient of equivalence*, in which a parallel form of a test or instrument is used. This eliminates practice effects, but it is always difficult for a researcher to gauge *just how equivalent* the two forms are. When only one administration of an item can be made, the method of *internal consistency* (or, 'rational equivalence') can be used to test reliability. In this method, a coefficient is calculated among individual items on a scale. However, this method is only appropriate for instruments designed to measure a particular attribute that is expected to manifest a high degree of internal consistency (Mertens, 1998). An example of such an attribute is seen in our 'measure of attitudes towards the homeless'.

In research involving observers, it is possible to apply two more tests of reliability. 'Interobserver' reliability is tested by comparing the records of two or more different observers from a single observation (Bernard, 2000). Again, a coefficient can be calculated (or a simple agreement percentage) to establish the degree to which the observers interpreted the events in the observation in the same way. When only one observer is conducting the research, 'intraobserver' reliability can be established by comparing the records of two different observations.

4.4.2i Reliability Concerns of the Current Research

The issues relating to the reliability of the individual instruments used will be discussed in Chapter 6. However, the current researcher has established the research undertaken within the framework of an 'eclectic' paradigm, and there are, therefore, issues of an epistemological and procedural nature pertaining to reliability that need to be considered. Firstly, 'reliability' is a somewhat postpositivist concept. Within the constructivist paradigm, change is expected, and stability of responses is therefore not appropriate (Mertens, 1998). Further, since constructivist research centres upon multiple constructions of reality, including the researcher's own, value-based reality, it is impossible to expect the high degree of standardisation that would be needed, for example, to establish interobserver reliability. Therefore, it is important to consider also the constructivist notion of dependability, wherein part of the research process itself is characterised by the researcher's detailed, honest documentation of the changes he/she tracks as the research progresses (Guba & Lincoln, 1989).

Where does this leave the current research? Certainly, there are instruments within the research design which can be clearly identified as quantitative in nature, and as such, leave themselves open to the question of reliability rather than dependability. As far as the qualitative instruments are concerned, it has always been the intention of the current researcher to keep an open mind with regard to change. Certainly, the research process itself dispelled several ideas and assumptions, although the investigation has continued in the same direction. Reports of changes are to be found in the chapters concerning the pilot study (Chapter 5) and the discussion/implications of the results (Chapters 8-11).

4.4.3 Validity in Research

The concept of validity is used to judge whether the research accurately describes the phenomenon which it is intended to describe. As Sapsford and Evans suggest, "Validity is the extent to which an indicator is a measure of what the researcher wishes to measure" (1984, p.259). Validity is distinct from *accuracy*, which describes the level of precision of the scale or instrument (Bernard, 2000).

The question of validity pervades the entire research process, from the design to the interpretation of results. This has led authors, such as Messick (1989) and Moss (1992), to consider validity to be the most essential consideration in test evaluation. As such, testing for validity has become an important part of clarifying research instruments, thus strengthening their credibility, and several methods are available to researchers. The most basic of these is *face validity*, which simply looks at whether the method *appears* to measure the phenomenon, and is based on consensus among researchers. For example, if everyone agrees that asking people, “How old are you?” is a valid instrument for measuring age, then it has face validity (Bernard, 2000). As might be expected from such a simplistic measure, face validity does not carry much credibility. Indeed, Youngman (1994) has described the concept of face validity as “more often than not a euphemism for doing nothing” (Youngman, 1994, p.260).

The other methods of testing for validity are more difficult to achieve, but carry more credibility in the research community. *Concurrent validity* is assessed by comparison with an equivalent test or instrument whose validity is known or assumed (Sapsford & Evans, 1984). The only caveat with this method is finding an ‘equivalent measure’ whose validity is already proven, particularly if the instrument being assessed is unique or measures a unique construct. An easier way to assess concurrent validity is through *known group comparisons* (Bernard, 2000), in which the instrument in question is tested with groups of people for whom a response could be easily predicted. For instance, if one were developing a scale to measure political ideology, it could be tested on Labour and Conservative party members. If the scale was valid, then Labour members would theoretically receive ‘high left’ scores, and Conservative members would receive ‘high right’ scores. If this did not turn out to be the case, then the concurrent validity of the scale would be called into question.

Related to the concept of known group comparisons is the method of *predictive validity*, in which an instrument is assessed by examining whether it successfully predicts behaviour or results. Thus, one might expect a valid test of scholastic aptitude to be able to predict future examination results (Sapsford & Evans, 1984). Predictive validity is a powerful measure, and is frequently used outside the research domain. For example, life insurance companies use predictive validity when calculating

premiums for customers. Typically, data are gathered on age, sex, weight, exercise habits, smoking/drinking habits, disease and so on; this is used to predict a person's life expectancy, and thus their premium.

Content validity refers to whether or not an instrument has appropriate content to measure its intended phenomenon. An example of low content validity can be seen by returning to the example of the 'political ideology' scale. If the questions on this scale all pertained to what type of chocolate bars the respondent preferred, it would have low content validity. This is admittedly an extreme example, and in the real world things are never quite so clear cut. Content validity is usually assessed by using experts in a particular field to make judgements on the appropriateness of the items on an instrument (Mertens, 1998).

The different methods for measuring validity all fall under the general heading of *construct* validity. That is, there are evidence and rationales which support the trustworthiness of score meaning (Mertens, 1998). Whilst validity cannot rely on any one form of evidence, it is not always necessary to utilise all of the available methods:

“What is required is a compelling argument that the available evidence justifies the test interpretation and use, even though some pertinent evidence had to be foregone. Hence, validity becomes a unified concept, and the unifying force is the meaningfulness or trustworthy interpretability of the test scores and their action implications, namely construct validity.”
(Messick, 1995, p.744)

4.4.3i Validity Concerns of the Current Research

As with all research, there are validity issues pertaining to individual instruments which need to be addressed. This will be done in Chapter 6, when the instruments used are discussed. However, there are other validity issues relating to the use of concepts such as 'self-esteem' which must be considered first.

Self-esteem, like intelligence, is a theoretical construct. When we attempt to measure a theoretical construct, we must address the problem of 'circularity'. How do we

know intelligence exists? Because we see its effects in achievement. How do we account for achievement? By saying that someone has achieved highly because they are intelligent. Thus, the validity of concepts such as self-esteem is dependent on two things: (1) the utility of the device that measures them, and (2) the collective judgement of the scientific community that a concept and its measure are valid (Bernard, 2000).

Researchers in self-esteem (e.g. Wells & Marwell, 1976; Jackson, 1984) have concluded that validity is not so much a matter of absolute truth, but of available proof. Hence, using the postpositivist methodology helps to eliminate possibilities and reduce uncertainty. In this sense, one might assume that the use of quantitative methods is more appropriate, particularly if the goal of research is to 'measure' self-esteem in a person (Mruk, 1999). However, there are other ways of conceptualising self-esteem that are equally valid, as Jackson (1984) suggests:

“Experimental investigation is based on the criteria of prediction and replication... But this is only one *kind* of criterion, and it establishes only one kind of knowledge. There are other kinds of knowledge that elude the criteria of prediction and replication; and a specific example is knowledge about self-esteem as a meaningful experience in a person's life. This kind of knowledge resides in a system of relations that is unique and irreducible in each separate instance. Such knowledge cannot be captured by a method that breaks it down into standard components [as an experiment does].” (Jackson, 1984, p.216-217)

Mruk (1999) suggests that self-esteem research needs to be concerned with information from both qualitative and quantitative methods for two reasons. Firstly, he suggests that human beings exist in both ways – “we are quantitative objects in the world just like any other physical body, and all the laws that apply to such entities also apply to us”, but also, “[we are] what phenomenologists call “body-subjects”, conscious identities that are always also embedded in physical form” (Mruk, 1999, p.65). This being the case, it is only through research in both quantitative and qualitative domains that we can truly understand the nature and mechanisms of self-esteem. Secondly, Mruk (1999) suggests that we cannot avoid the reality that the

social psychology of self-esteem is filled with both kinds of research, and it is therefore inappropriate to dismiss one kind simply because it may be convenient.

4.4.4 Triangulation in Research

In dealing with such a complex human construct as self-esteem or self-concept, it is useful to implement two or more methods of data collection. As has already been discussed, multiple methods which borrow from differing paradigms enable us to gain a more complete understanding of the topic of study. However, multiple methods can also add to the validity and richness of our interpretations.

Cohen and Manion (1994) describe triangulation as “the use of two or more methods of data collection in the study of some aspect of human behaviour” (Cohen & Manion, 1994, p.233). Mertens (1998) states that triangulation involves “checking information from different sources or methods for consistency of evidence across sources of data” (Mertens, 1998, p.183). Triangular techniques attempt to map out the richness and complexity of human behaviour by addressing it from multiple standpoints. By analogy, it is impossible to appreciate the full grandeur and beauty of Mount Everest if one only looks at it from a single angle.

The advantages of triangulation in the research process are numerous. Firstly, whereas the single observation in fields such as medicine, chemistry and physics normally produces sufficient and unambiguous information on phenomena, the same observation in the context of human behaviour would provide only a limited view. Exclusive reliance on one method, therefore, could bias/distort the researcher’s picture of reality (Cohen & Manion, 1994), and the phenomenological problem of ‘perspectivity’ (see 2.1) becomes apparent. Triangulation, then, can be seen as a method of reducing perspectivity problems. Along similar lines, a second advantage of triangulation is that it can add to the validity of the research – if multiple methods reveal similar findings, the researcher can be more confident that what he/she is attempting to study is actually being drawn out. Further, it adds weight to hypotheses or notions that are being tested. Finally, triangulation is a way of shielding research from the common criticism of “method-boundedness” (Cohen & Manion, 1994, p.234) to which the social sciences often fall prey.

4.4.4i Methods of Triangulation and the Current Research

It is possible to achieve triangulation in a number of ways. In the context of the current research, the choices made were linked both to the subject matter and the methodological decisions discussed in this chapter (and in Chapter 6). However, before these choices are discussed, it is important to remind ourselves of the principle methods of triangulation (see Table 9):

Type	Description
Time triangulation	Attempts to take into consideration factors of change and process by utilising cross-sectional and longitudinal designs.
Space triangulation	Attempts to overcome the parochialism of studies conducted in the same country or within the same subculture by making use of cross-cultural techniques.
Combined triangulation	Uses more than one level of analysis from the three principal levels used in the social sciences: individual, group, and collectives.
Theoretical triangulation	Draws upon alternative or competing theories in preference to utilising one viewpoint only.
Investigator triangulation	Engages more than one observer.
Methodological triangulation	Uses either (a) the same method on different occasions, or (b) different methods on the same object of study.

Table 9. The principal types of triangulation used in research (adapted from Cohen & Manion, 1994).

The current research has utilised three of the six principal types of triangulation listed in Table 9. Firstly, the research uses analysis from both individual and group levels (combined triangulation) through interviews and causal comparative instruments. Secondly, theoretical triangulation is achieved through the use of multiple and varying instruments, each of which carries with it a different theoretical background. As noted in Chapter 2, no single model or perspective on the self is considered in isolation – eclecticism is very much the watchword for this research. Finally, methodological triangulation is achieved through the use of interviews, checklists, questionnaires, and other differing instruments, all designed to tap into an aspect of the self.

5

Pilot Study

The initial research consisted of a small-scale study conducted in one primary specific learning difficulties unit, two primary mainstream schools, and one secondary mainstream school, with a total of 12 participants (including one parent). All of the primary schools were located in the Sefton Borough. The secondary school was located in Southport. Initial contact was made with the primary specific learning difficulties unit in November 1998. LEA permission and police checks were completed in December, with parental consent granted in January of 1999 (see Appendix 1 for a sample consent letter, and Appendix 2 for a flow diagram detailing the process undertaken in acquiring participants).

5.1 Sample and Methods in the Pilot Study

For reasons of confidentiality, both the children's and schools' names have been substituted by letters and numbers, as follows (Tables 10 and 11):

School	Description
1	Specific Learning Difficulties Primary
2	Mainstream Primary
3	Mainstream Primary
4	Mainstream Secondary

Table 10. Codes and generic descriptions of schools in the pilot study.

Child	School	Age	Sex
PP	1	11	M
OO	1	10	M
EE	1	8	M
CC	1	9	M
QQ	1	11	F
MM	1	10	M
NN	1	10	M
DD	1	8	M
A	2	9	M
B	3	8	M
T	4	12	M

Table 11. Codes and personal details of participants in the pilot study.

The pilot study was conducted to serve two main purposes. Firstly, it was to provide initial information about the research question. This information would either confirm or refute the current researcher's notions about self-concept and self-esteem in dyslexia. Secondly, the pilot study was to serve as a 'testing ground' for the instruments available to the researcher. From the results of the pilot study, the researcher was able to adapt/refine, discard, and introduce new instruments on the basis of their performance.

The instruments used in the pilot study, along with the number of participants used with each one, is detailed in Table 12:

Instrument	Number of Participants
Self Description Questionnaire (Marsh, 1990a)	11
Who Am I? (Kuhn & McPartland, 1954)	5
B/G STEEM Scale (Maines & Robinson, 1988)	7
Semantic Differential Scale (Richmond, 1984)	20 (10 Dyslexic, 10 Control)
Attribution of Success and Failure Questionnaire (Bar-Tal & Darom, 1979)	16 (8 Dyslexic, 8 Control)
Child Interview (adapted from Riddick, 1996)	11
Parental Interview (adapted from Riddick, 1996)	1 (Parent)

Table 12. Instruments used in the pilot study.

The first two instruments in Table 12 (SDQ and Who Am I?) were used to assess the self-concept of the participants. The B/G STEEM and Semantic Differential Scale were the self-esteem measures. Bar-Tal and Darom's (1979) attribution questionnaire was used as a supplementary measure. Its inclusion was justified by the links established in the literature between self-concept, self-esteem, and attributional style (see 3.2). Finally, the child and parent interviews were adapted from Riddick's (1996) research. New questions which were pertinent to the research question were added.

5.2 Pilot Study Results

The responses given by participants in all of the instruments used in the pilot study helped to refine the techniques and methods that would eventually form the full scale investigation. Because of the small-scale nature of the pilot study, statistical analysis of some of the quantitative instruments (e.g. the attribution questionnaire) was not appropriate, but the final study incorporates statistical analysis using these instruments.

5.2.1 Self-Description Questionnaire (Marsh, 1990a)

The SDQ is a 76-item questionnaire calibrated for children aged 8-12. Participants are read statements about themselves (e.g. "I am good at reading") by the researcher and are required to give one of five responses: True, Mostly True, Sometimes True/Sometimes False, Mostly False, or False. Raw scores are converted into a T-score profile for each participant. Details of this process can be found in Marsh (1990a). The individual T-score profiles for the pilot study participants can be found in Appendix 3.

The mean raw scores for the pilot sample were used to create a mean T-score profile (see Table 13 and Figure 3):

N=11 Mean Age = 9.6	Physical Abilities		Physical Appearance		Peer Relations		Parental Relations		Reading		Maths		General School		General Self		Non-academic Self		Academic Self		Total Self	
Raw	32		27		31		38		27		29		22		35		32		26		30	
Percentiles*	24		38		38		56		25		36		13		n/a**		36		22		30	
T-scores	44		47		49		54		44		48		38		n/a**		48		42		45	

* Percentile scores calculated from a normative sample of 3, 562 children (Marsh, 1990a).

** No percentile (or t-scores) are available for the General Self Scale, as only 739 responses were available in the normative sample.

*** Maximum T-score = 80; T-score of 50 or above is rated as high self-concept (Marsh, 1990a).

Table 12. T-score profile results for the pilot sample (calculated from mean raw scores).

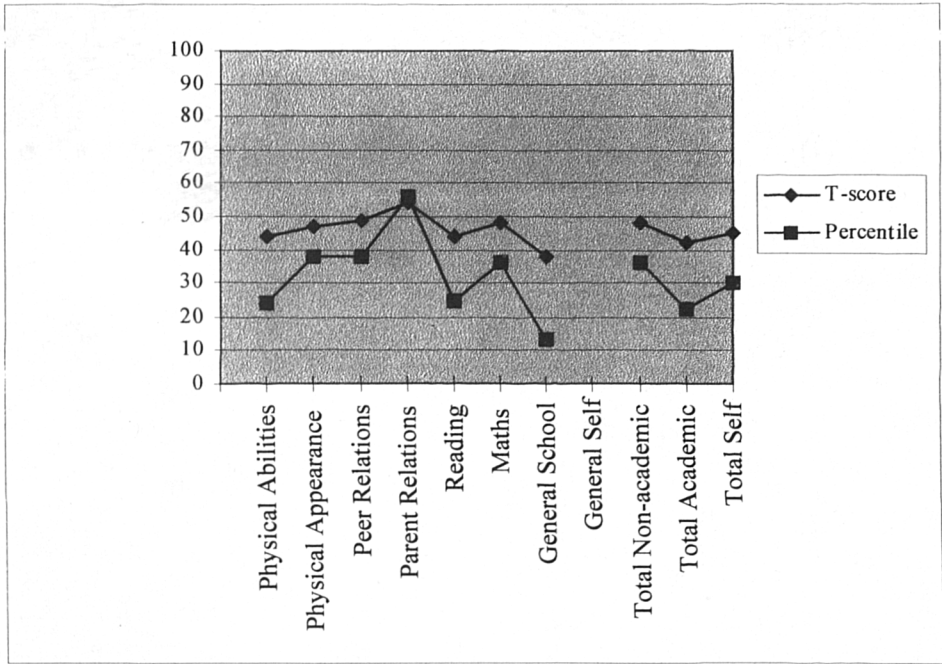


Figure 3. SDQ T-scores and percentiles calculated from the pilot sample means.

5.2.2 Who Am I? (Kuhn & McPartland, 1954)

5 of the 11 participants in the pilot sample completed the ‘Who Am I?’ task (Participants were asked to give twenty statements about themselves that began with “I...”). 4 of the 5 attended a primary specific learning difficulties unit, and the other attended a mainstream primary school.

Sample responses from each of the participants can be found in Table 14. The complete raw data produced for the ‘Who Am I?’ tasks can be found in Appendix 4.

Child	School	Total No. Responses (out of 20)	Sample Responses
QQ	1	20	"I am a girl", "I have a cat", "I like art";
MM	1	11	"I am a boy", "I like Friday", "I like music";
NN	1	19	"I am big", "I can run fast", "I can throw a ball real high";
DD	1	20	"I am 8", "I like Easter", "I like animals";
A	2	6	"I am a boy", "I like Liverpool", "I am 9";

Table 14. Sample responses from the 'Who Am I?' scale in the pilot study.

There were several problems concerning the reliability and validity of this scale. In terms of validity, it became clear early on that the majority of responses which participants gave shed little light on their self-concepts. Further, in the case of on participant (NN), many of the responses given matched items from the Self-Description Questionnaire which he had just completed. In terms of reliability, only 2 participants (QQ and DD) were able to complete the task. It is suggested that this was because it was the first task they were given, as the order of tasks was varied by the researcher. The reliability of the scale is therefore called into question, as this suggests that the time at which the task is given affects the responses of participants.

5.2.3 B/G STEEM Scale (Maines & Robinson, 1988)

7 of the 11 children in the pilot sample completed the B/G STEEM scale (A, B, C, D, I, J & K). Participants are required to respond to each of the 27 items on the scale with a 'Yes' or 'No' answer. The items consist of questions relating to either self-esteem or locus of control (the degree to which an individual believes he/she controls his/her life).

The self-esteem and locus of control scores for participants in the pilot study can be found in Tables 15 and 15a respectively:

Age	Very Low SE	Low SE	Normal SE	High SE	Very High SE
6-8 years		B			EE
9-11 years		OO	PP, A	CC	
12-14 years			T		

Table 15. B/G STEEM results for self-esteem items in the pilot sample.

Age	External	Normal	Internal
6-8 years			EE
9-11 year		PP, OO	CC, A
12-14 years		T	B

Table 15a. B/G STEEM results for locus of control items in the pilot sample.

There were also several problems attached to the use of this scale. Firstly, self-esteem results for at least two of the participants (CC and EE) were much higher than their teacher had predicted, and what other data (especially from interview) had suggested. Therefore, a question of validity was raised. In addition, upon examination the scale only revealed 20 self-esteem items (the other 7 being connected to locus of control). The items themselves are somewhat simplistic, and often seem unconnected with self-esteem (e.g. "Do you like being a boy?"). The current researcher believes that this factor also affects the validity of the scale.

5.2.4 Semantic Differential Scale (based on Richmond, 1984)

20 participants (10 experimental, 10 control) completed the semantic differential scale. Participant K did not complete the scale at the time of the pilot study. In the first instance, participants were required to place themselves ("I am") on a seven point scale between two opposite constructs, e.g.

Popular_._._._._Unpopular

The scale consisted of 10 items. Upon completion, participants were required to repeat the task, placing their ideal selves (“I would like to be”) on the scale. Discrepancy scores were calculated by subtracting the “I am” scores from the “I would like to be scores” scores for each item. A total discrepancy score could then be calculated.

The means and standard deviations for the two groups are shown in Table 16:

	Mean Total Discrepancy	Standard Deviation
Control Group	13.2 (range 0-26)	9.67
Dyslexic Group	15.7 (range 0-24)	7.65

Table 16. Means and standard deviations of the experimental and control groups on the semantic differential scale in the pilot study.

An independent samples t-test failed to find a significant difference between the discrepancy scores of the experimental and the control groups ($p > .05$).

The current researcher suggests that the dichotomy between the difference in means between the two groups and the lack of statistical significance in the analysis can be traced to the relatively small number of participants in each group. Moreover, as with the B/G STEEM scale, the number of items used to measure a global concept was deemed too few.

5.2.5 Attribution for Academic Success and Failure (adapted from Bar-Tal & Darom, 1979)

16 participants (8 experimental, 8 control) completed the attribution questionnaire. The questionnaire asked them to imagine that they had just taken a test and had received a mark of 2 out of 10 (failure condition) or 9 out of 10 (success condition). Participants were then asked the control question, “Do you think that this is a success or a failure?”, which had to be answered correctly for the participant to progress to the second stage of the questionnaire. The second stage of the questionnaire asked the

participants to evaluate the degree to which each particular cause influenced the mark received on a four point scale, ranging from (1) little influence, to (4) great influence.

The means and standard deviations of each sub-group are shown in Table 17:

Attribution	Dyslexic		Control	
	Success (N=4)	Failure (N=4)	Success (N=4)	Failure (N=4)
	Mean (std. dev.)	Mean (std. dev.)	Mean (std. dev.)	Mean (std. dev.)
Ability	3.25 (.50)	2 (.82)	3 (.82)	3 (1.41)
Difficulty of Subject	2.5 (.58)	2.75 (.96)	2.5 (.58)	2.75 (1.5)
Effort	3.75 (.50)	2.75 (.96)	3.5 (1)	3.5 (.58)
Difficulty of test	3 (.82)	2.75 (.96)	3.25 (.5)	3.25 (1.50)
Preparation	3 (.82)	2.5 (1)	3 (.82)	2.5 (1.29)
Teaching quality	3.5 (.58)	2.25 (1.26)	3.25 (.96)	2 (1.41)
Interest in subject	3.5 (.58)	2.25 (1.26)	3.5 (.57)	2 (1.41)
Conditions at home	2.75 (.58)	1.25 (.50)	3.5 (1)	2.5 (1.29)

Table 17. Mean responses and standard deviations of the pilot sample for the attribution questionnaire.

A multivariate analysis of variance was performed (see Appendix 5), but failed to find significant results. The current author acknowledges that since the group size was so small (N=4), a significant result was unlikely. With the limited amount of data, statistical robustness was not possible. However, since the final study incorporates data from a total of c.120 children (for this instrument), increasing sub-group size from 4 to 30, it is anticipated that statistical robustness will not be a problem.

5.2.6 Interviews

5.2.6i Child Interviews

The individual interviews (N=11) were examined and, where appropriate, themes or trends across participants were drawn out. At this early stage, there were not enough participants for a meaningful analysis of age-related or school related differences, and so all participants have been grouped together. Interviews were conducted individually for each participant..

Dyslexia

Participants' understandings of dyslexia ranged greatly. Common trends were functional explanations, both specific and general and physiological explanations (e.g. part of the brain...). These are outlined in Table 18:

Functional – General	Functional – Specific	Physiological
“You’ve got learning difficulties, and it’s with you for life.” (Child EE)	“You’ve got problems with your reading, your writing, and other things.” (Child PP)	“A problem in your brain...” (Child OO)
“You have a learning difficulty”. (Child MM)	“You can’t read or write properly.” (Child CC)	“Half your brain doesn’t work.” (Child NN)
“You can’t do things that other people can do, and you have to learn how to do them.” (Child DD)	“I’m not good at reading.” (Child A)	
“You’ve just got a bit of a learning difficulty.” (Child QQ)	“You can’t remember word patterns and things.” (Child T)	

NB: One participant did not know what dyslexia was.

Table 18. Participants’ definitions of ‘dyslexia’ in the pilot sample.

When asked what problems they had at school with regard to dyslexia, most participants cited difficulties in reading, writing and spelling. Poor subject areas were Maths and English. One participant, Child A, claimed not to have any problems in school because of dyslexia. One participant (Child EE) also cited bullying as a direct consequence of dyslexia.

Most participants had noticed their difficulties since around age 6 or 7. Exceptions to this rule were Child T (who said that he had “always” had difficulty), and Child A, who did not feel that he had any difficulties.

Participants were largely informed about dyslexia by their parents (n=7), or support teachers/special needs staff (n=2). One participant could not remember who told them about dyslexia, and one had not been told about dyslexia. Explanations of what

dyslexia meant tended to mirror participants' original definitions, except in the case of Child PP, whose mother had told him that his brain "wasn't wired up properly".

Self-Concept and Self-Esteem

Participants' least favourite features about themselves were examined in order to establish links to their difficulties. Of those who could think of their least favourite feature (n=7) all responses were in some way related to their dyslexia, as seen in Table 19:

Least Favourite Feature
"Can't do work as well as other people." (Child PP)
"My brain, because it doesn't work very well." (Child OO)
"My hands, because I don't like doing work, and I have to hold a pencil." (Child EE)
"Can't do maths." (Child NN)
"Dyslexia." (Child DD)
"My hands." (Child B)
"My legs, because I can't run fast." (Child CC)

Table 19. Least favourite features of the pilot sample.

In terms of comparisons with their ideal selves, participants gave mixed responses. Three participants said that they would change nothing about themselves if they could. A further three participants thought that they were completely different from their ideal selves. The remaining participants believed that they were quite close to their ideal selves, but with a little room for improvement.

Five participants stated that they did daydream about having no difficulties. Participants felt most confident when with their parents (n=5), at school (n=3), or with friends (n=4). Parents inspired the most confidence because they were 'easy to talk to'. Interestingly, those participants who cited school as the place which inspired most confidence in them could not explain why this was. Participants felt least

confident at school, or with friends. The reasons given for school tended to be related to fear of failure or lack of support, and fear of ridicule from friends.

Most participants found it difficult to talk in front of others, particularly in school. Reasons given for this were fear of failure or ridicule.

Participants' use of good and bad words to describe themselves is outlined in Table 20:

Child	Good	Bad
PP	Intelligent	Sad
OO	Clever	Narky
EE	Clever	Lazy
CC	Strong	Slow
MM	Friendly	-
NN	Big	Not hardworking
DD	Big	Not liked
B	Nice	Horrible

Table 20. Participants' use of 'good' and 'bad' words to describe themselves.

Peer Relations

Most participants stated that other children noticed the difficulties they had (n=9). Of these, several have been teased about their difficulties (n=5). Examples of teasing and ridicule are outlined below:

“Here’s the boy who can’t hold a pencil” (Child EE)

“[Called] bin-brain, dyslexia dweeb” (Child CC)

“[Called] stupid” (Child NN)

Teasing tended to centre around the learning difficulty of the child rather than the special attention (i.e. visiting the unit) that it brought, and only two children claimed that they were teased because of the special attention they received.

Most participants, despite some teasing, did not feel excluded as a direct result of their difficulties, and most felt that they would have had the same amount of friends whether they had dyslexia or not. This was probably the case because it was not friends of participants who indulged in teasing them. However, most participants stated that they would like to swap places with someone in their class, indicating a feeling of inferiority.

Where participants had tried to explain their difficulties to other children, responses ranged from indifference to attempting to help. In the case of one child (Child EE), explanations were met with laughter and ridicule.

Teacher-Pupil Relations

All participants stated that their class teachers understood them, and tried to help them. However, some (n=5) participants from the specific learning difficulties unit stated that although their current teachers were understanding and helpful, teachers at their previous school had not been so. Examples include Child PP, whose previous class teacher had refused to accept that he had a learning difficulty, Child OO, who said that his previous teacher “didn’t understand what the problem was”, and had made him read out in front of the class, Child EE, who had been scolded by his previous teacher for requesting help, Child CC, who had been called “lazy”, and required to read a story out (which he had found very upsetting) and Child DD, who had been forced to spell out words in class (again, causing distress).

Interestingly, children from the mainstream schools all stated that their teachers understood their difficulties and tried to help them. However, since this group was so small (n=3), and since two of them did not know/were unaware that they had difficulties, it is difficult to come to a firm conclusion.

Academic Self Concept

Good and bad subjects tended not to display a particular pattern, although English was cited frequently as a bad subject for the participants. It is concluded that the problems associated with literacy in dyslexia are the reason for this occurrence. Favourite and least favourite subjects followed what was displayed in the previous question (i.e. if a participant was good at a subject, that tended to be his/her favourite, and if he/she was bad at one, it tended to be his/her least favourite). As a result of this, English was more frequently cited 'least favourite'.

When asked about their comparative level of intelligence, 3 participants stated that they felt less intelligent than their classmates, 7 stated that they were about the same, and only 1 stated that he was more intelligent. The responses for levels of importance of schoolwork ranged from 'in the middle' to 'the most important thing' in participants' lives. One participant stated that his schoolwork was the least important thing. There was no pattern or trend between responses of importance of schoolwork and feelings of comparative intelligence. Participants' responses about their level of satisfaction with schoolwork ranged from 'quite happy' to 'happy'.

Most participants confirmed that they were either 'different' or 'very different' from their ideal selves in terms of schoolwork, which is in contrast to the previous question, in which most participants stated that they were happy with their attainment. Although all participants bar two stated that their difficulties did not affect the way they saw themselves at school, this was not reflected when they were asked to give one area that they would change if they could, as seen in Table 21:

Child	Area for Change
PP	"My writing, because it's scruffy"
OO	"Setting out"
EE	"Writing"
CC	"English"
QQ	"Reading"
MM	"Spelling"
NN	"Maths"
A	"Maths"
B	"English"
T	"Write quicker"

Table 21. Areas for change in the pilot sample.

Participants were also asked to give estimates of causal attributions for situations of academic success and failure. In situations of success, attributions were largely external and unstable ("lucky", "question was easy" [Child PP, Child CC], "having a good day" [Child OO], "people showing me what to do" [Child DD]), or internal and unstable ("listening" [Child EE], "working harder than usual" [Child QQ], "trying hard" [Child MM], "not talking" [Child NN]). This suggests that participants were unlikely to take personal credit when they succeeded, since they thought that the situation was not under their control (external attributions), or that their success was dependent on unstable factors (internal-unstable attributions, such as 'not talking').

In situations of academic failure, attributions tended not to fall into a particular trend. However, three participants (Child EE, Child CC, Child QQ) cited internal-stable factors, suggesting that they are more likely to be affected by failure as they see the cause as internal and relatively unchangeable.

5.2.6ii Parental Interview

Child A's mother worked in the school that her son attended, and was chosen on the basis of her availability.

Background

Child A has a statement of special educational needs for dyslexia. He was about five or six when his mother first noticed he was having problems. Specifically, he had trouble with reading. Child A's mother feels that he is basically as intelligent as other children, despite his difficulties.

Dyslexia

Child A's mother understands dyslexia as "finding it difficult to talk or bring out something that they know", and "struggling with their work". She was always aware that he could have dyslexia, since his older brother had been statemented previously. Her initial reaction was "not another one!"

Academic Self-Concept

Child A's main enjoyment at school comes through maths, and "mixing well". He enjoys reading least, because of all the reading he is made to do at home, with the school SENCo (Special Needs Co-ordinator), and in class. Child A reacted badly to his mother telling him that he wasn't reading as well as he could. His perception of himself is that he does not have any problems, which means that he never uses dyslexia as an excuse for not completing work.

Self-Concept and Self-Esteem

Child A's favourite feature about himself is that he likes to make things. His least favourite feature is his reading ability. He never makes self-disparaging remarks.

Peer Relations

To the best of his mother's knowledge, Child A does not encounter any problems with other children because of his difficulties.

Child A is “confident at school and at home”.

Teacher-Pupil Relations

To his mother’s knowledge, Child A has never been made to feel upset with regard to his difficulties by a teacher or adult. His favourite teacher is his class teacher.

5.3 Initial Analysis

The pilot study proved to be extremely useful in terms of refinement of research methods (see 5.4) and in reaffirming the current researcher’s belief that the study is relevant and justified. The Self-Description Questionnaire (Marsh, 1990a) results indicated specific deficits in reading, general school and total academic self-concept. These data are promising in terms of answering the research question pertaining to domain-specificity of self-concept deficits (see 3.8). Both the ‘Who Am I?’ (Kuhn & McPartland, 1954) and B/G STEEM (Maines & Robinson, 1988) scales proved extremely disappointing. In the case of the former, some participants simply could not complete the task. Those who did gave little information pertaining to their self-concept (see 5.2.2). In the case of the latter, the results did not tie in with those of other measures (and informal teacher reports). However, appropriate alternative measures were acquired (see 5.4), and so no data has been lost.

The semantic differential scale (Maines & Robinson, 1984) and the attribution questionnaire (Bar-Tal & Darom, 1979) provided promising, if not statistically significant results. In the case of the semantic differential scale, there is a clear difference between the groups (see Table 16), and the larger number of participants included in the final sample (and adaptations to the instrument – see 5.4) should facilitate this difference. In the case of the attribution questionnaire, it was also clear that no significant results would be found without a much larger number of participants, which was always intended. In both cases, an increase in sample size would also mean more ‘representativeness’.

The interviews with the children provided perhaps the richest source of data. In general, participants seemed to view having dyslexia as a major negative influence on

their lives, either because of bullying (n=5), or being disparaged by teachers (n=5). All participants who could think of a 'least favourite feature' about themselves cited something to do with their difficulties. They felt least confident at school, and about one third of participants saw themselves as less intelligent than their (non-specific learning difficulties) classmates. All participants wanted to change something about their difficulties. When these data taken as a whole, it is easy to see how much having dyslexia appears to be affecting the self-concept and self-esteem of these children. Again, using a larger sample will provide more representative data, as well as allowing for comparison between groups.

5.4 How the Pilot Study Informed the Research

As stated at the beginning of this chapter, the pilot study had two main purposes. The first of these was to provide some initial information pertaining to the research question. The results outlined in 5.2 and their analysis in 5.3 gave the researcher plenty of food for thought. However, it was in methodological terms that the pilot study proved most useful, fulfilling the second purpose, as it became clear which instruments were 'working', which needed to be refined, and which were unsuitable. Crucially, it also gave the current researcher ideas as to what was missing from the research.

5.4.1 Methodological Changes in Light of the Pilot Study

Following the pilot study, several methodological changes/modifications were implemented. These were:

- Interview questions were split into two sets – 'unit' and 'mainstream'. This was done because some questions did not apply to children in mainstream education (e.g. "How long have you been coming to the unit?");
- Interview questions were rearranged so that the 'dyslexia' section appears at the beginning. This change was implemented because the dyslexia section served as a

better introduction to the interview. It also allowed the child to focus his/her mind.

- 12 interview questions were omitted from the final study. This was done because interview length was becoming a problem (some interviewees had problems in concentrating), and certain questions served to confuse rather than give insight. Further, some questions simply did not make sense in an interview context.
- The semantic differential scale was adapted to focus specifically on academic self-esteem. The results from the pilot had been non-significant, partly because of the small number of participants, and partly due to the blunt nature of the original scale. However, the researcher felt that the instrument was extremely useful if adapted carefully, and an area previously missing from the study could now be covered.
- The B/G STEEM scale was dropped from the final study. The scale was considered too 'blunt'. It also conflicted with other methods and informal teacher reports.
- Teacher interviews were dropped from the final study, and replaced with Lawrence's (1996) self-esteem rating scale. Teachers simply did not have enough time for a full interview (none could be arranged for the pilot study). Lawrence's scale takes 2-3 minutes to complete and does not require the researcher's presence – therefore, scales for every participant can be administered.
- Parental interviews were dropped from the final study. It was difficult to arrange meetings with parents at a mutually agreeable time and place. Further, the researcher also felt that the range of instruments used meant that the study was beginning to lack focus. The rich data produced by other instruments meant that little information would be lost.
- The 'Who Am I?' scale was dropped from the final study, and replaced with the Kelly Grid (adapted from Thomson & Hartley, 1980). The WAI scale did not

yield any useful information, and participants found it difficult to complete. Kelly's (1955) theory of personal constructs is an integral part of self theory, and the personal constructs grids are widely used in education and psychology.

- The final sample size was increased from 30 to approximately 60. This would allow for robust statistical analysis. The increase in size was made possible by a high level of response from schools.
- For certain analysis purposes, age group cohorts were changed from 6-8, 9-11, and 12+ (researcher's original idea) to 7-9, 10-12, and 13-15. The new age groups fit with Marsh's (1990a) SDQ calibrations and Gurney's (1988) model of self development (see Chapter 2).

5.4.2 Changes to the Nature of the Research in Light of the Pilot Study

As described in Section 4.4.2.1, the current researcher has a duty to report any changes in the nature of the research as it progresses. Originally, the main interests of the current researcher were specificity of deficits in self-concept and self-esteem, and possible differences attributable to mainstream or specialist schooling. However, with such a good response from schools, and a mix of qualitative and quantitative instruments, it has been possible to collect data from a much larger group of children with dyslexia. With larger numbers, there are further possibilities for analysis. One of these is an analysis of age-related differences. Are there differences in self-concept and self-esteem between children with dyslexia in primary schooling, and those in secondary schooling (as assessed by the quantitative instruments)? If so, what are the experiential mechanisms behind these differences, as assessed by the qualitative instruments? The use of age-related analyses also allows us to compare the data with a developmental model of self-development (Gurney, 1988), and allows us to ask further questions about possible differences between the developing self of children with dyslexia and that of those without difficulties.

6

Instruments

The results of the pilot study helped the researcher to refine and adapt the methods used to collect data. For the final study, multiple methods were used. In some cases, multiple instruments were used within a single method. The range of methods and instruments included those of both a qualitative and quantitative nature. As already stated, this eclectic approach to educational research is not only a reflection of current thinking, but is also particularly suitable given the nature of the topic of study (Mruk, 1999).

The methods and instruments used in the final study are outlined briefly in Table 22:

Domain	Method	Instrument(s)	Participant(s)
Qualitative	Interview	37+ items, adapted from Riddick, 1996)	Children with dyslexia
Quantitative, causal comparative	Questionnaire: Scales	Self-Description Questionnaire (Marsh, 1990)	Children with dyslexia, control group
		Attribution Questionnaire (Bar-Tal & Darom, 1979)	Children with dyslexia, control group
		Semantic Differential (based on Richmond, 1984)	Children with dyslexia, control group
		Lawseq self-esteem checklist (Lawrence, 1996)	Teachers, on behalf of children with dyslexia and control group
	Personal Constructs	Kelly (1957) Grid	Children with dyslexia, control group

Table 22. Methods and instruments used in the final study.

6.1 Interview

Interviews have traditionally been considered as one of a range of survey methods in social and educational research (Cohen & Manion, 1994), but are often treated separately in academic texts. This is seen as a reflection of the popularity of the method in modern research, as well as its depth and range. Interviewing has become so popular because it is a very flexible technique, suited to a wide range of research purposes (Drever, 1995). According to the purpose of the research, both the nature of

the interview and the role of the researcher can change. For example, interviews can be used for testing and developing hypotheses, for selecting or promoting an employee, for effecting therapeutic change (as in the psychiatric interview), or for sampling respondents opinions (as in some market research). Although in each of these scenarios the role of the interviewer (and interviewee) are different, “a common denominator is the transaction that takes place between seeking information on the part of one and supplying information on the part of the other” (Cohen & Manion, 1994, p.271).

6.1.1 Types of Interview and This Research

Bernard (2000) states that the best way to conceptualise the range of techniques within the general area of ‘interviewing’ is as a continuum of interview situations based on the amount of control we try to exercise over people’s responses: “The different situations produce different types of data that are useful for different research projects and appeal to different researchers” (Bernard, 2000, p.190). The continuum is outlined below in Figure 4:

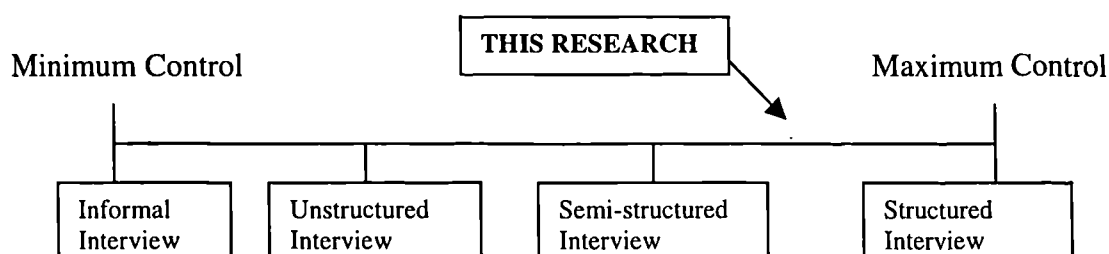


Figure 4. Continuum of research situations.

Informal interviewing is characterised by a complete lack of structure. The researcher’s duty in the informal interview situation is to remember conversations heard during the course of the day ‘in the field’. Jotting notes down and daily sessions of inputting memories into a computer are ways of reducing data loss through poor memory. This type of interviewing can be used as part of (or an introduction to) other research methods. For instance, a researcher engaging in participant observation may use informal interviews at the beginning of his/her study. However, the lack of control over the direction of the interview itself has made this method the least popular of the four main types used in research (there is also the

problem of 'consent'), and it is generally only used as a primary instrument for data collection when it is the only one available. For example, Connolly (1990) studied street children in Bogota, Columbia. Talking informally with these children was the only way in which he could do his research.

Unstructured interviewing differs from informal interviewing in that the interviewee is always made aware that an interview is taking place. Further, the 'traditional' interview situation is adopted, whereby the interviewer asks questions to which the interviewee then attempts to respond, as opposed to informal interviewing, where the researcher may not direct questions to the interviewee; he/she may simply steer the conversation towards the topic of study. Bernard states that:

“unstructured interviews are based on a clear plan that you have in mind, but are also characterised by a minimum of control over the respondent's responses... The idea is to get people to open up and let them express themselves in their own terms, and at their own pace” (2000, p.191).

Unstructured interviewing is generally used in research where an interviewee may be interviewed on several occasions. In such situations, the minimised control and relaxed atmosphere allow a rapport between interviewer and interviewee to build up, in turn making the interviewee more open in his/her responses.

Semi-structured interviewing is the most suitable method for single interview situations, i.e. where the interviewee is used only once (Bernard, 2000). As with unstructured interviews, the interview situation is made apparent to the interviewee. However, the interview has more of a structure, and the interviewer is often guided by a written set of questions or topics which are covered in a particular order. Questions can be open or closed in format (informal and unstructured interviews tend only to use open format questions) (for definitions and distinctions of different types of question, see section 6.1.2). Semi-structured interviewing provides a strong balance between control (on the part of the interviewer) and expression (on the part of the interviewee), and provides detailed data for the researcher. As Drever describes:

“The person interviewed can answer at some length in his or her own words, and the interviewer responds using probes or follow-up questions to get the interviewee to clarify or expand on answers” (1995, p.1).

Finally, *structured interviewing* provides the greatest control possible in the interview situation. Respondents are asked to respond to as nearly identical a set of stimuli as possible (Bernard, 2000). An interview schedule is created, containing a clear set of instructions to interviewers. There is a great deal of overlap between this type of interview and survey research, and they are often considered one and the same. Structured interviews can be carried out on a face-to-face (or telephone) basis, or can be adapted so that they are self-administered. As with semi-structured interviews, questions can be open or closed in format, but tend to be closed if the researcher wants to exert the maximum amount of control. The data collected can be both qualitative and quantitative, depending on the questions used, but is usually quantitative. This is may be partly because the control exhibited by the researcher in the structured interview tends to attract those of a positivist, ‘pro-quantitative’ disposition.

As seen in Figure 4, the interviews used in the current research are found on the continuum between semi-structured and structured. The interviews used (see Appendix 6) contain features from both types. On the one hand, the interviews were conducted using a schedule in which every respondent was asked to respond to an identical set of stimuli. However, this schedule formed only the basis of the interview. There were several open format questions (see 6.1.2 for further details about the question types used), and the researcher used probes to develop and confirm responses. Further, when respondents were particularly interested in a question or topic, there were no restrictions on the responses they made. As a result, data not always directly related to specific questions could form part of the interview.

The choice of interview type for the final study is justified for several reasons. Firstly, it was felt that unstructured or informal interviews would lack the reliability and validity needed for this research. In terms of validity, it would be difficult to claim that the self-concept and self-esteem of respondents were actually being probed if one did not have a clear set of interview questions and/or topics to stand up to

inspection. Likewise, without administering the same, or a very similar, set of questions to respondents, there would be no guarantee that the same responses would be given on a different occasion, since the questions themselves are likely to change if they have no structure. However, the interview method used still allowed for collection of qualitative data, and gave respondents the freedom to talk about the experience they wanted to. In research such as this, with interviews involving children as young as 7 years old, a completely closed format would not be appropriate. In the current researcher's experience, children tend to talk about what they want to talk about, regardless of our preconceived ideas about how an interview will unfold!

6.1.2 Types of Question and This Research

Questions within interviews can be distinguished between those that are closed in format, often called 'forced choice', and those that are open in format, often called 'open ended'. Further, different types of question address different aspects of the respondent. Thus, questions can also be classed as either demographic, non-threatening behavioural, threatening behavioural, knowledge-based or attitudinal in nature (Mertens, 1998).

The distinction between open- and closed-format questions is easy to make. Let us assume that we want to find out what attributes employers look for in potential job candidates. We could ask an employer to choose the most important attributes from a list, viz: (1) smart appearance, (2) qualifications, (3) experience, (4) personality, and so on. This would be a closed-format question. Alternatively, we could ask the employer, "What are the most important attributes that you look for in job candidates?" This would be an open-format question. The advantages and disadvantages of the two can change according to the nature of the research being conducted, and the question being asked. Bernard (2000) reports that closed-format questions are often preferred for probing embarrassing or sensitive issues, because their nature guarantees anonymity when the data is collated. Such questions also provide control, but limit the richness of the data collected. Open-format questions allow for detailed, qualitative data to be collected. As already stated, the current research utilised both types of question (see Appendix 6). In addition to the

advantages outlined for each format above, the current researcher also used different types of question depending on the type of answer he wanted. For example, several questions were used simply to provide basic information about the way in which the children viewed themselves. Consequently, the responses given need to be basic also. In these cases, closed format questions were used, an example being, “Compared to your classmates, do you think you are *less*, *more*, or *about the same* level of intelligence?”

Questions that are *demographic* in nature ask about the personal characteristics of the respondents (Mertens, 1998). Examples include questions concerning gender, age, level of education and marital status. Because of their nature, and for simplicity, demographic questions are often designed using a closed-format. However, certain demographic issues, including race and ethnicity, or disability, are often treated using an open format, to avoid discrimination based on the limited choices in closed-format questions, as well as possible confusion. The current research utilised a limited number of demographic questions so that a background for each respondent could be established. The standardised nature of demographic questions also meant that responses could be collated and grouped. Examples from the interview schedule include, “Who first told you that you were dyslexic?” and “When did you first start to have problems in these areas?” The current researcher acknowledges that such questions are not typical demographic questions, but may be considered demographic because they address personal characteristics (e.g. age at onset of difficulties) that provide background information for the study. Other more typical demographic details (e.g. name, date of birth, gender) were acquired outside the interview context.

Non-threatening behavioural questions are used to enquire about behaviours that are typically performed and easily talked about (Mertens, 1998). Such questions can be open or closed in format, and are often combined with aided recall, where suggestions are made by the interviewer to jog the respondent’s memory. Examples of non-threatening behavioural questions from the current research include, “What do you like to do outside of school?” and to some extent, “What is your favourite subject at school?” In the context of the current research, the purpose of the non-threatening behavioural questions was to provide an introduction to the interview, or ‘warm-up’,

which would put participants at ease. Such questions also add to the background picture of each participant.

Threatening behavioural questions can be defined as those that “elicit a defensive reaction in the respondent” (Mertens, 1998, p.123). Such questions are not necessarily those which address socially undesirable behaviours, but any that attempt to probe issues that are sensitive or embarrassing to the respondent. In the context of the current research, threatening behavioural questions were a necessity. Examples included, “Do they [other children] tease you [because of your difficulties]? If so, what do they say?” and, “Has any teacher ever told you that you are lazy, stupid, or messy, or any other bad words?” Such questions can be stressful for respondents, especially when they are children as young as 7 years old, and so it was important to follow guidelines on how to ask them. Mertens (1998) and Bernard (2000) make several suggestions, including using open-format questions, which were followed here, as well as increasing the length of the question itself, which gives respondents time to recover from the initial shock that the interviewer would ask such a question. Rather than increase question length, which may have caused difficulty for some respondents, the current researcher opted to ‘build-up’ to threatening questions with a series of related, but non-threatening sub-questions, producing the same effect. Thus, the question, “Has any teacher ever told you that you are lazy, stupid, or messy, or any other bad words?” was preceded by the questions, “In what ways does your class teacher try to help you overcome your difficulties?” and “Did the teacher at your previous school understand your difficulties?”

Knowledge questions quite simply probe some aspect of the respondent’s knowledge. The most obvious examples are seen in the form of written examinations and tests. However, in terms of educational and psychological research, knowledge questions often represent a precursor to other behavioural or attitudinal questions. This is because a person’s knowledge level about a particular subject affects our interpretation of their opinions on it. An example from the current research is the question, “What do you understand by the word ‘dyslexia’?” which was followed up with, “What difficulties do you have at school, home and elsewhere because of your dyslexia?” In this case, the current researcher’s interpretations of respondents’ expressed difficulties will be affected by their knowledge of the disorder. For

example, if a respondent's knowledge of dyslexia is poor, it is unlikely that he/she will be able to provide a particularly detailed picture of the difficulties dyslexia causes.

Finally, *attitudinal* questions probe respondents' opinions on particular subjects. The current research utilised several attitudinal questions, such as, "Do you feel excluded by others because of your dyslexia?" and "Do you think having dyslexia changes whether you like/dislike certain subjects?" These and other questions formed an integral part of the overall framework for the interview. In particular, the questions satisfied part of the interpretative aspect of the current researcher's eclectic paradigm, as they dealt with participants' conceptions of their reality.

6.1.3 Interview Skills

Drever (1995) suggests that the skills required to conduct a research interview successfully need to be honed prior to engaging in a full-scale study. In the context of the current research, the researcher had prior experience of interviewing both children and adults, and as such many important skills had already been acquired. However, the pilot served as a valuable opportunity to maximise these skills in time for the final study. As most research texts (e.g. Mertens (1998), Bernard (2000), Cohen & Manion, 1994) suggest, practice is the best way forward.

Interview skills are generally used in order to elicit the most salient information from a respondent. A primary skill is *probing*. Bernard (2000) suggests that, "The key to successful interviewing is learning how to probe effectively – that is, to stimulate a respondent to produce more information..." Probing takes on several forms, displayed in Table 23:

Probe	Definition
Silent Probe	Remaining quiet and waiting for respondent to continue
Echo Probe	Repeating the last thing someone has said and asking them to continue
Uh-Huh Probe	Encourage respondent to continue by making affirmative comments, e.g. "Uh-huh..."
Long-Question Probe	Increasing question length to increase answer length
Tell-Me-More Probe	Probe for more information, simply by asking for more
Probing by Leading	Follow up on responses with suggestive questions
Baiting: Phased Assertion Probe	Acting as if one already knows something in order to get respondents to open up

Table 23. Probing skills for interviewing (adapted from Bernard, 2000).

Many of the probing skills depicted in Table 23 were used in the final study. However, notable omissions included the 'long-question probe', because with the issue of threatening behavioural questions, increasing question length may have caused difficulties for some respondents. 'Probing by leading' was also not used, as the current researcher believes that any question an interviewer asks leads a respondent, and as such further leading would constitute an ethical compromise, not to mention reducing the validity and reliability of the questions being asked.

Other interview skills relevant to the current study include the use of language, and the pacing of the interview. Language is particularly important in a study such as this where the sample population is made up of children. The questions were written in as simple a manner as possible, without becoming patronising. The pilot study was used to correct or adapt any questions that caused confusion. In terms of pacing, both Drever (1995) and Bernard (2000) advise against overlong interviews for the sake of

both the interviewer and interviewee. As seen in Section 5.4.1, the pilot study revealed that interview length was becoming a problem. As such the interview schedule was cut to reduce the time taken for each respondent.

6.1.4 Recording and Analysis of Interview Data

Recording and analysis of interview data can prove problematic if handled ineffectively. In terms of recording interview data, the current researcher was faced with a dilemma: should the interviews be taped (and then transcribed), recorded manually (note-taking), or simply 'remembered'? If interviews are recorded, either by video or audio-tape, the interviewee may feel intimidated and inhibited. Also Drever (1995) notes that transcription of 1 hour of interview data can take anything up to 6 hours to transcribe, and even then much of the 'nuances' of conversation are lost (with approximately 60 children interviewed, each taking up to 30 minutes, transcription alone for this study could have amounted to 180 hours!). At the opposite end of the scale, if the interviewer simply listens, the interviewee will probably feel relaxed and produce much more data. Unfortunately, the interviewer may forget much of this information. It was therefore decided that since "the middle-course of note-taking throughout the interview, may overcome both these difficulties" (Clemett & Pearce, 1986, p.87), this would be the chosen method of recording.

In terms of analysis of data, several approaches are available. Some interview questions on matters of straightforward information can be analysed by simply coding and counting responses (Drever, 1995). This information can then be cross-checked with the research question. More complicated questions require in-depth analysis. Cohen & Manion (1994) report on the phenomenological analysis of interview data, in which data is reduced from pure transcription to bracketing. This process involves the researcher in suspending his/her meaning and interpretation and entering into the world of the interviewee. Thus, the researcher sets out to understand what the interviewee is saying rather than what he/she expects a person to say. Further, the researcher looks for units of relevant meaning throughout the interview, attempting to pick up on 'themes'. Units of relevant meaning can also be delineated for the interview data as a whole, i.e. 'are there any common themes across interviews?', or 'are there any themes unique to one interviewee/subgroup?'. The current research,

with its mix of open and closed-format questions, lent itself to both types of analysis. Although the interviews were not transcribed from tape, the phenomenological reduction took place as part of the note-taking process.

6.1.5 Problems with Interviews

Invalidity is reported to be a major problem in interview research (Cohen & Manion, 1994). The reasons behind this are numerous, and permeate the entire interview process, from conception to execution. At the conception stage, leading questions are often incorporated into the interview, sometimes unintentionally, as the researcher strives to attain the best possible data to answer his/her research question. This problem is further reflected in the interview itself, in which researchers are often guilty of bias (Cannell and Kahn, 1968), both in the way in which questions are asked and in the recording of data, if recording is done in the form of note-taking. On the part of the interviewee, problems such as demand characteristics, in which the interviewee guesses the purpose of the research, and, in an effort to please the interviewer, makes responses as he/she imagines the researcher wants to hear, and social desirability, in which the interviewee alters his/her true responses in an effort to appear socially desirable or politically correct, can affect an interview's validity.

The current researcher made every effort to reduce any biasing effects in the research. The majority of interview questions were adapted from Riddick (1996), who conducted her own content validity check using specialists and teachers. Further, all questions, whether from Riddick (1996) or unique to this research, were submitted to and approved by ethics and research committees at John Moores University in Liverpool. In terms of recording of data, the researcher made a conscious effort to note down the responses from participants *word for word*, eliminating 'bias through selectivity'. The participants themselves could, of course, choose to give either socially desirable responses, or display demand characteristics. However, either case is unlikely. In terms of social desirability, there is little in the interview schedule that probes socially undesirable behaviour or attitudes. In terms of demand characteristics, it is unlikely that the respondents would guess the exact nature of the research, other than that the researcher wanted to know 'how having dyslexia makes a

person feel'. In any situations where either of these two phenomena occurred, the use of triangulation would enable immediate detection.

As noted in 6.1.1, reliability can also prove problematic in interviews. Since this issue is generally associated with unstructured or informal interviews, it is not a concern of the current research. However, the problem highlights a constant conflict that occurs in the generation of interview questions, as Kitwood points out:

“In proportion to the extent to which ‘reliability’ is enhanced by rationalisation, ‘validity’ would decrease. For the main purpose of using an interview in research is that it is believed that in an interpersonal encounter people are more likely to disclose aspects of themselves, their thoughts, their feelings and values, than they would in a less human situation. At least for some purposes, it is necessary to generate a kind of conversation in which the ‘respondent’ feels at ease. In other words, the distinctively human element in the interview is necessary to its ‘validity’. The more the interviewer becomes rational, calculating, and detached, the less likely the interview is to be perceived as a friendly transaction, and the more calculated the response also is likely to be.” (1977, in Cohen & Manion, 1994, p.282)

6.2 Questionnaires

Bernard describes questionnaires as the most familiar kind of structured interview, since “every respondent or informant is exposed to the same stimuli” (2000, p.228). The use of the types of questionnaire exhibited in the current research reflects the current researcher’s desire to provide control and reliability in the study. The questionnaires provide the purest examples of the positivistic aspect of the research, and are used as a data collection method within a causal comparative design (see 6.4)

6.2.1 Types of Questionnaire: Administration

Questionnaires can be initially distinguished by the way in which they are, or can be, administered. In general, researchers have a choice between mail (written or

electronic), telephone, or face-to-face administration. Each of these methods has advantages and disadvantages, and it is in consideration of these, along with the idiosyncrasies of the research itself, that the researcher makes his/her decision.

Self-administration methods, such as using mail, have several advantages which can make the research process easier. Firstly, the 'drop and collect' technique necessitated by the method means that the research can be conducted with a vast number of respondents, as opposed to face-to-face administration, which is time-consuming, and thus may limit the number of respondents used. Secondly, there is no concern about interviewer bias. Thirdly, self-administration methods allow more complex questions, such as those which involve a long list of response categories, or which require a great deal of background information to be asked. Finally, the approach is more amenable to questions regarding sensitive issues, because of the perceived anonymity the respondent feels. However, the researcher has no control over how people interpret questions on a self-administered instrument, and thus validity may become a problem. Further, response-rate for postal questionnaires is notoriously poor (Cohen & Manion, 1994; Mertens, 1998; Bernard, 2000), and the data received may not be from a representative sample. Finally, there is no way to confirm that the person who received the questionnaire was the same person who completed it.

Face-to-face and telephone interviews also have distinct characteristics that affect their suitability for different types of research. For instance, these methods allow us to conduct research with those who might otherwise not be able to provide information (e.g. blind or illiterate people). Also, if a respondent does not understand a question, the researcher can provide an explanation. Likewise, if a respondent is not answering fully, the researcher can probe for more detail. Whilst the original sample size may be less than it would be for a postal questionnaire, the response-rate is always 100%, except in phone-interview situations where a respondent cannot be reached. However, as with traditional interviews, this method is intrusive and reactive, and can be extremely time-consuming.

It was in consideration of the above factors that the current researcher decided to opt for face-to-face administration of the questionnaires used. When working with

children, especially those with dyslexia, one can never be sure that all respondents can both read the question, and understand it. Face-to-face administration eliminates these potential problems. Whilst the research process overall could have been extremely time-consuming, most of the questionnaires used were relatively short, eliminating any problems in this area. The one exception to the face-to-face rule implemented was in the use of the Lawseq (Lawrence, 1996) questionnaire, which utilised the 'drop-and-collect' technique. This was done mainly because the teachers who filled in the questionnaire rarely had time to do so in the researcher's presence (some completed the Lawseq for up to 10 children).

6.2.2 Types of Questionnaire: Focus on Scales

The majority of question types available for use in questionnaires relate directly to those discussed in section 6.1.2. However, the majority of the question types in the questionnaires used in the current research utilise scales, and as such, this section will focus only on these (for any other question types, refer back to 6.1.2).

A scale is "a device for assigning units of analysis to categories of a variable" (Bernard, 2000, p.287). Scales can be considered a type of closed format question, since the respondent only has access to a fixed number of responses, and can be simple or complex, also known as 'composite'. Simple scales are used when a single question is sufficient to measure a variable (i.e. "How old are you?" can be answered using the following scale: 1 = 0-21, 2 = 22-40, 3 = 41+). However, in education and social science, the more common measures are complex, using multiple indicators. Complex measures tend to make use of one or more of the following different types of scale: Guttman scales, Likert scales, semantic differential scales, Cantril ladder scales, or magnitude scales.

Guttman scales can be used to measure unidimensional variables, that is, those variables in which indicators have a certain order to them. For example, let us consider the following indicators of maths ability: (1) What is $2 + 4$?, (2) What is 12×13 ?, and (3) What is the square root of 1342?. If a person were unable to answer question (1), he/she would be unlikely to be able to answer (2) or (3). Conversely, if a person was able to answer question (3), one would expect correct answers for (1) and

(2). Thus, Guttman scales look for the patterns and rules that exist in truly unidimensional variables.

The technique used in the *Likert scale* was originally developed by Rensis Likert (1932) as a way of measuring attitudes, but has grown to become the most widely used form of scaling in modern research. A typical question using a Likert scale would consist of a statement (i.e. “Everton are the best football team in the Premiership”), followed by a 3, 5, or 7 point-scale in which the respondent could indicate his/her level of agreement (ranging from “Totally Disagree” at one end, to “Completely Agree” at the other).

Semantic differential scales, developed by Osgood et al (1957) measure respondents’ feelings about a target behaviour, item, attitude or concept by asking them to rate it on a scale in between paired adjectives. For example, we could be interested in measuring people’s feelings about racism. Thus, we would use the construct “Racism is...”, and ask respondents to rate it on scales in between paired adjectives such as “Ignorant-Knowledgeable”, “Brave-Cowardly” and so on. The paired adjectives usually come from literature about the target item (in this case, racism), or from focus groups.

Cantril ladder scales, developed by Hadley Cantril (1965), are used to assess people’s perceptions of the things in life that are important to them. Participants list their concerns (i.e. financial success, happy marriage), and are then asked to place each concern on a ‘ladder’ from 0-10 (with ‘0’ representing the worst possible situation, and ‘10’ representing the best). Each concern is placed three times – for now, five years ago, and (speculatively) for five years into the future. The scale is ‘self-anchoring’, as participants are asked to explain what the top and bottom rungs mean to them, and as such is associated more with the values and interpretations of the participants than those of the researcher. Finally, *magnitude scales* are a psychophysical variation on traditional Likert scales. Instead of a five or seven-point scale, participants are asked to use visual or auditory stimuli (i.e. different line lengths) to assess constructs. The technique has been shown to address attitudes to constructs with more accuracy than Likert scales, but can be difficult to explain to participants.

The current research has used both the semantic differential and the Likert technique. As the scales used were taken directly or adapted from previously published work, there was little choice in this matter. However, as seen in Section 6.2.3, the current researcher believes that the nature of the research is suited to both of the scale types used.

6.2.3 Scales Used in the Current Research

As seen in Table 22, the current research used four types of questionnaire. Three of the questionnaires (SDQ, Attribution Questionnaire, Lawseq) used Likert scales. To assess academic self-esteem, a semantic differential scale was used.

6.2.3.1 Self Description Questionnaire

Herbert Marsh's (1990) Self Description Questionnaire is a 76-item Likert questionnaire which assesses four areas of nonacademic self-concept, three areas of academic self-concept, and the self in general. The procedure for completing the questionnaire is detailed in 5.2.1. The scale is calibrated and standardised for children between the ages of 8 and 12. The children older than 12 in the current research were given the SDQ-2, which is calibrated and standardised for children between the ages of 13 and 17. The scales were normalised and standardised using a sample of over 3500 children in New South Wales, Australia. However, the author also reports that large samples of British children have produced similar norms.

The SDQ is used on a worldwide scale and is one of the most detailed self-concept scales available. Marsh (1990) reports the internal consistency reliability estimates for the various scales and total scores to be between 0.8 and 0.9. In terms of validity, Marsh (1990) has used a construct validation approach, because self-concept is a theoretical construct. He has found that SDQ responses are related to sex, age, socioeconomic status, academic achievement, teacher ratings of achievement and inferred self-concept, peer ratings of inferred self-concept, student self-attributions for academic successes and failures, responses to other self-concept instruments, and experimental interventions designed to enhance self-concept.

6.2.3.2 Attribution Questionnaire

Bar-Tal and Darom's (1979) attribution questionnaire uses an 8-item Likert scale to address attributions in academic situations. The procedure for completing the questionnaire is detailed in 5.2.5. The questionnaire is based on attribution theory, one of the most widely researched areas in psychology. In brief, the theory states that for every event or behaviour that we produce, we are able to make an attribution as to the cause. Attributions can be internal (i.e. "I passed the test because I'm clever") or external ("I passed the test because my teacher is excellent"), and stable ("I passed the test because English is easy") or unstable ("I passed the test because I revised a lot last night"). Attribution theory has been related to, among other factors, sex, depression (Joiner & Wagner, 1995), academic achievement, and, importantly self-concept and self-esteem (Marsh, 1990).

The 8 attributional factors used in the questionnaire (ability, difficulty of material, effort, difficulty of test, preparation, teacher quality, interest in subject, and home conditions) were factor analysed by the original authors to establish their validity. They provide no information on the reliability of the questionnaire, but this is not surprising. Several of the attributional factors are unstable (e.g. difficulty of test, preparation), and as such would not necessarily be intended to produce 'reliable' data, since by their nature, these factors can change from situation to situation.

6.2.3.3 Semantic Differential Scale for Academic Self-Esteem

Richmond (1984) used the semantic differential technique to assess self-esteem in academically able and less-able children (for completion procedure, see 5.2.4). The scale used in the pilot study used exactly the same scale as the original research. However, for various reasons (see 5.4.1), the scale was adapted to focus specifically on academic self-esteem.

The semantic differential technique has a high co-efficient of equivalence (0.82 and above) with comparable instruments (e.g. Likert scales), and as such is considered to be a reliable measure (Richmond, 1984). In terms of validity, the current author

followed suggested procedure in developing the new paired adjectives, drawing them from the literature on academic self-concept and self-esteem (Thomson & Hartley, 1980; Burns, 1982; Byrne, 1998). The current researcher therefore believes that the scale has high content validity.

6.2.3.4 Lawseq Questionnaire

Lawrence's (1996) 12-item checklist was considered by the current researcher to be an important addition to the study. Firstly, the checklist looks at *behavioural* manifestations of self-esteem. Secondly, the checklist is administered to teachers rather than to the pupils themselves, adding an important element of triangulation. However, the checklist itself had to be adapted for the purposes of the study. Lawrence's (1996) questionnaire relied very much on polarised responses about behaviour, manifest as a 'yes/no' checklist. For example, the teacher is asked, "Does he/she make excuses to avoid situations which may be stressful?" and is required to respond by circling either 'yes' or 'no'. The current researcher felt that this technique was too 'blunt', and that such behaviours should be measured by degree. Thus, in the current study, a Likert scale was introduced, with teachers asked to respond by indicating the frequency of each behaviour on a four-point scale: "Never", "Sometimes", "Most of the Time" and "Always".

A second alteration to Lawrence's (1996) checklist came in the assessment of responses. The original checklist has a scoring guide, with points added or deducted on the basis of responses. A total score is compared with norms for a standardised population, and a self-esteem rating can be acquired. However, the current researcher felt that, again, reducing self-esteem behaviours to a simple classification of 'low', 'medium' or 'high' was inappropriate (also, the initial adaptation meant that this scoring system was defunct anyway); therefore, the checklist was used to directly compare the frequency of each behaviour between groups.

Lawrence developed the original questionnaire in the early 1980s (Lawrence, 1982, 1983), and it is in this, his early work, that we are able to access information about the instruments' validity. The questionnaire has high content validity, being drawn from extensive research into the behavioural manifestations of self-esteem (Lawrence,

1982). Construct validity is also high – the checklist correlates with other established self-esteem measures (Lawrence, 1982, 1983, 1996). Reliability is more difficult to assess, as the author provides no relevant information.

6.3 Personal Constructs

Personal construct grids of the kind used in the current research might easily be considered in the same category as the questionnaire or interview. However, the method presents such a departure from the others used in this study that the current researcher felt it important to present ‘personal constructs’ as a separate section.

The psychology of personal constructs was first introduced by Kelly (1957), and is discussed in Section 2.2. In brief, personal constructs are “the dimensions that we use to conceptualise aspects of our day-to-day world” (Cohen & Manion, 1994, p.299). Kelly (1957) suggested that we act as scientists, experimenting in order to understand our world, and that personal constructs represent the means by which we evaluate what we see and experience. The research method that grew out of this was the ‘Role Construct Repertory Grid Test’ (Kelly, 1957), which has appeared in many different forms in the last half century, in the fields of psychiatry, counselling, and, importantly for this research, education.

6.3.1 Measuring Personal Constructs

Kelly proposed that part of what we, as ‘scientists’, evaluated through our personal constructs were ‘elements’ – that is, people, events, objects and ideas which are important to us. The Repertory Grid technique looks at the associations between our constructs and elements. In the original design, Kelly (1957) elicited unique elements from participants by asking them to write down on cards important people in their life. Unique constructs were elicited by asking the participants to look at ways in which the people they had named were similar or different. This was known as ‘individual corollary’, because it reflected each individual’s unique construction of events.

More recent work using Kelly's Grid technique has provided some major departures from the original work, although the theoretical background remains the same. Cohen and Manion (1994) report that rather than elicit constructs and elements from participants, modern researchers have tended to provide them. This has been justified by recent interest in the social as opposed to the personal (i.e. the knowledge that people can act in a similar way as well as a unique one), and by the fact that there is a common consensus that providing elements and constructs need not contradict the theory of individual corollary:

“[While] it seems clear in the light of research that individuals prefer to use their own elicited constructs rather than provided dimensions to describe themselves and others ...the results of several studies suggest that normal subjects, at least, exhibit approximately the same degree of differentiation in using carefully selected supplied lists of adjectives as when they employ their own elicited constructs.” (Adams-Webber, 1970, p.349)

The current researcher decided that using provided constructs was more appropriate, given the above evidence and the population in question.

Another departure from Kelly's (1957) original technique comes in the way in which the relationships between elements and constructs are reported by the participant. In the original technique, participants were required to classify each element to 'contrast poles' for each construct, by assigning them to one of two bipolar adjectives (e.g. 'masculine-feminine'). An example of this is seen in Table 24:

Elements										Constructs
1	2	3	4	5	6	7	8	9	10	
x			x	x	x	x			x	Masculine-Feminine
	x	x				x	x	x		Strong-Weak
						x				Soft-Hard

NB: An 'x' indicates one half of a contrast pole, a 'blank' represents the other.

Table 24. An example of the Role Construct Repertory Grid Test (Kelly, 1957).

The current researcher decided not to adopt Kelly's original technique, instead opting for Hinkle's (1965) modified version, in which participants are asked to rank each element within a singular construct (e.g. "masculinity" as opposed to "masculine-feminine"), a technique known as 'laddering'. Using this method, the researcher is able to locate each construct within the hierarchical context of the construct system. Thus, we are also able to look at the constructs that participants associate together, for example in the individual's construct system, are those who are 'good at reading' also those who are 'successful'?

6.3.2 Rationale for the Personal Construct Technique

The use of personal construct measurement is justified on several levels. On a theoretical level, the psychology of personal constructs is an important part of personality theory. Self-concept and self-esteem also contribute to personality, and the current researcher was keen to investigate any related factors (see 2.2 for a discussion of how personal constructs and the self relate to one another). On a practical level, the repertory grid technique is "particularly able to provide the researcher with an abundance and a richness of interpretable material" (Cohen & Manion, 1994, p.309). Repertory grids have been used to identify changes as the result of some educational experience, e.g. Burke, Noller & Caird's (1992) study of changes in constructs of teacher trainees, to identify problems of adjustment in family counselling (Alexander & Neimeyer, 1989), and, importantly, to examine differences between dyslexic and non-dyslexic learners (Thomson & Hartley, 1980). The current

researcher has used the latter piece of research as a framework for the repertory grid employed in the current study.

6.3.3 Problems with the Repertory Grid Technique

As with any widely used research instrument, there are several difficulties attached to the repertory grid technique. Firstly, the grid has been criticised for exhibiting “a nomothetic positivism that is discordant with the very theory on which it is based” (Cohen & Manion, 1994, p.310). That is, as with scales of measurement in the physical sciences, elements are assigned to positions on a fixed scale of meaning. However, meaning is itself anchored in semantics (Yorke, 1978), and it is perhaps naïve to assume that one can do justice to the meaning held by a subject through a simple bipolar rating scale. The positivistic traits displayed in the modern repertory grid technique are such that authors such as Fransella and Bannister (1977) warn that it may be in danger of being absorbed into the traditions of psychometric testing, and thus employed using the same assumptions that underpin such testing. These accusations of positivistic ‘facets’, in what purports to be a nonpositivistic methodology, have been further upheld by the use of statistical analysis in interpreting the results of grid administrations.

Another problem with the repertory grid technique relates to its popularity as a research tool. In effect, the repertory grid has become a victim of its own success, with increasing numbers of studies being published, each bearing less and less relation to the theory upon which the technique is based. As Fransella and Bannister (1977) observe, studies concerned with the attitudes of people towards asparagus, which bear no relation to personal construct psychology, are on the increase.

In addition to theoretical criticisms, the repertory grid technique still has its difficulties, mainly practical in nature. Table 25 presents the most common practical problems in grid administration:

Problems
Variable perception of elements of low personal relevance;
Variation of context in which elements are perceived during administration;
'Halo effect' intruding into the ratings when the subject sees the grid matrix taking shape;
Accidental reversal of the rating scale;
Failure to follow the rules of the rating procedure.

Table 25. Practical problems associated with the repertory grid technique (adapted from Yorke, 1978).

The current researcher has taken great care to ensure that the problems outlined in this section do not impinge on such a valuable area of the study. The criticism regarding the use of bipolar rating scales has been avoided by employment of the 'laddering' technique (see 6.3.1). However, the other criticisms that highlight the positivistic 'hypocrisy' are upheld. The current researcher was in no position (in terms of time constraints) to invent a new, nonpositivistic method for measuring personal constructs, and with such large numbers of participants, statistical analysis was inevitable. On a practical level, the problems outlined by Yorke (1978) were heeded, and for the most part, dealt with. For example, the halo effect problem was avoided by adapting the method of grid administration so that participants did not actually see the grid taking shape. For each construct, participants were presented with the list of elements. As each element was 'used', it was covered up, so that it could not be accidentally used twice. This procedure was followed for each construct until the grid was complete.

6.3.4 Reliability and Validity in the Repertory Grid Technique

The repertory grid technique has been shown to be both a reliable and valid technique in educational research (Cohen & Manion, 1994). Obviously, the extent of this reliability and validity depends upon the nuances of the research in question, and it is in this context that it seems appropriate to describe the repertory grid used in the current study. As noted previously, the grid used is based on Thomson & Hartley's (1980) study. Unfortunately, the authors provide no information as to the reliability of

their grid, and in view of this fact the current researcher can only assume that there were no difficulties associated with this factor. In terms of validity, the ever-present debate over elicited versus provided constructs (see 6.3.1) is raised once more. The authors of the original research, and, accordingly, the current researcher, provided constructs for the participants, and in doing so increased the validity of their grid since the constructs themselves (i.e. “good at reading”) were inherently linked to the research question, concerned with looking at differences in personal constructs between dyslexic and non-dyslexic learners.

6.4 Framework for Analysis: The Causal Comparative Design

In the positivistic tradition of the quantitative instruments included in the current study, a causal comparative design has been adopted for interpretation of results. The current researcher felt that this would be the most appropriate way to conceptualise the data recorded in the study.

6.4.1 Basis and Characteristics of Causal Comparative Research

Causal comparative research is one of the two kinds of ‘ex post facto’ research, with the other being co-relational research. Translated, ‘ex post facto’ (Latin) means ‘from what is done afterwards’. In terms of research, this may be defined as ‘after the fact’ investigation, looking for cause and effect relationships by observing existing conditions and searching back in time for plausible causal factors (Cohen & Manion, 1994). Ex post facto research is itself part of the larger domain of *causal* research, of which the most common example is the classic experiment.

Causal comparative research is concerned with group differences and is used to study non-manipulable variables. These are variables that cannot, or should not be manipulated. Examples include inherent characteristics, such as gender or ethnicity, characteristics that should not be manipulated for ethical reasons, such as illegal drug use, and characteristics that could be manipulated but are not, such as school placement (Mertens, 1998). Causal comparative designs are common in educational and psychological research because of the frequency of comparisons of people with different characteristics. Examples from education include Richmond’s (1984)

comparison of academically able and less-able children on a self-esteem scale, and Bar-Tal and Darom's (1979) comparison of girls and boys on an attribution questionnaire.

The basic design for a causal comparative study is outlined in Figure 5:

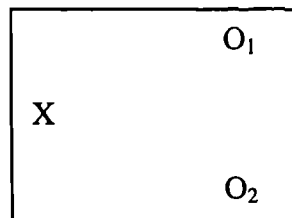


Figure 5. Basic design in a causal comparative study.

The design works in the following way. The two groups, O₁ and O₂, differ on one critical characteristic, which informs the nature of the investigation and the research question. Depending on the nature (and direction) of the research, there is either a criterion group and a comparison group (i.e. children with dyslexia and children without dyslexia), or two criterion groups (i.e. males and females). The researcher examines the two groups in X, a variable or event, such as a self-concept scale, and then scrutinises the results for group differences.

Causal comparative research represents the less stringent side of positivistic research. The notion of true experimental control is not considered necessary or, indeed, appropriate. In experiments, researchers have manipulative control. In causal comparative research, the emphasis is on observing as opposed to manipulating. Further, the control by randomisation exhibited in true experiments is wholly inappropriate in causal comparative research – participants are *deliberately* assigned to groups on the basis of a particular characteristic.

6.4.2 Issues in Identifying and Studying 'Groups' and 'Group Differences'

Researchers engaging in causal comparative research need to be aware of the issues associated with comparing individuals on the basis of characteristics that cannot, or should not, be changed. Mertens (1998) warns that we, as a research community,

focus too much on group differences, and suggests that this taints the way in which we judge studies. As an example, she refers to the fact that the focus of most gender-related research has been on gender differences, and points to the traditionally held misconception that there are largely demonstrable differences in maths abilities between men and women. Although recent research has quashed this myth, it did once hold scientific status, through causal comparative research. Mertens (1998) suggests that this was the case because of the inability of traditional research designs to examine similarities as well as differences, but also because of the reluctance of education journals to do so. In particular, the emphasis on *statistically significant differences* has been given too much ground, as Campbell points out:

“[finding differences] has been what counts in terms of publication, dissemination and ultimately research survival. Studies not finding significant differences are FOUR times less apt to be finished. Even when they are finished, they are less likely to be published than studies in which significant differences are found.” (1988, p.3)

Such criticism leaves the current researcher with an interesting dilemma in terms of analysis of data. As outlined in 3.8, the primary aim of the research was to investigate self-esteem and self-concept in developmental dyslexia. Secondary aims included investigating whether dyslexia, if it became clear that there was a self-concept or self-esteem deficit, produced global or specific deficits in the domain of the self, and investigating possible differences in self between children with dyslexia in mainstream education and those in specific learning difficulties units. The latter aim is clearly a template for causal comparative analysis, but the others might not be so. Instruments such as Marsh's-(1990) questionnaire allow for analysis based on individual score profiles and percentile ratings, based on a normative sample (see next chapter), and as such, the causal comparative template, which relies so heavily on statistically significant group difference, could be avoided. Indeed, the main data source, the interviews, does not even lend itself to this type of analysis. However, the other instruments, given their nature or adaptations they were subjected to, can only really produce rich data through statistical analysis. Further, it is the belief of the current researcher that in any study where a new research question is being asked, one has to have the opportunity for comparison, and indeed, comparison is intrinsically linked to

the current research question! Children with dyslexia have low self-concepts. Compared with whom? Without comparing our dyslexic sample with anyone else, we have no template for what constitutes 'normal'. How can we say that children have a low or high self-concept without knowing what a 'medium' self-concept is? Even in Marsh's (1990) questionnaire, the opportunity for percentile ratings as a form of analysis is merely a masked form of a causal comparative design. Indeed, we are comparing our sample with Marsh's sample of 3,000+ children. It was in consideration of such factors that the current researcher decided that even given the growing unpopularity of 'group differences' studies, this was the only way of conducting the investigation that would do justice to the research question.

A second major issue in ex post facto research which needs to be considered is that of group identification. This area has proved crucial in developing criteria for inclusion in the study. Mertens (1998) states that problems in categorisation arise in situations where there is no single 'watertight' method of categorising (or 'grouping') participants. She uses the example of categorising people according to race to illustrate the problem. In the context of the current study, the mere fact that defining dyslexia alone has proved such a difficult task (see 1.1) meant that identifying criteria for who qualifies as a 'child with dyslexia' could have proved impossible! However, after careful consideration, the following criteria for inclusion in the study as a 'child with dyslexia' were used:

- Statement of special educational needs for (or undergoing statutory assessment for) dyslexia (or specific learning difficulty: dyslexia), or note in lieu of a statement, or awaiting statutory assessment for dyslexia;
- Little or no other identified difficulty (e.g. Asperger's syndrome, ADHD);

The use of a statement of special educational needs for dyslexia set a standard for inclusion that would be transparent across the various Local Education Authorities which were approached during the course of the study. Although LEAs differ in their terminology, they all implement government identification and assessment standards (DFEE, 2000) in their approach to special educational needs. The use of the phrase 'little or no' in relation to other difficulties was unavoidable – as outlined in 1.1,

dyslexia is seen as part of a grid of overlapping difficulties, and this fact makes it difficult to obtain such a large number of dyslexic participants without *some* of them having overlapping difficulties.

The criteria for inclusion as part of the control (or 'comparison' group) were:

- At least average intelligence (as assessed by teacher judgements and any available tests);
- Not on any stage of the 5-stage intervention model for SEN (DFEE, 1994);

The first criterion was included to ensure that the control sample results would not be tainted with data from children who had low self-esteem or self-concepts because of their poor intelligence. Richmond (1984) has already found this to be common. It also allowed the two samples to be 'matched' a little more, since part of the DFEE (2000) criteria for dyslexia includes an average intelligence quotient. The second criterion was included so that the sample results would not be tainted with data from participants who had low self-concepts, or self-esteem, because of other learning difficulties.

Matching of the groups was conducted on two broad levels. Firstly, the age range of the different groups was roughly mirrored (see Table 26). This applied to the control group as well as to the two 'dyslexia' groups. Secondly, intelligence levels were matched across groups – since members of the control group were drawn from the same schools as the dyslexia groups, the researcher was able to ask teachers to select participants whose broad level of intelligence matched the children with dyslexia that had already been selected. This part of the matching process was, therefore, under the control of teacher judgement (and informed by any test results which they had).

6.4.3 Problems with Causal Comparative Designs

It would be wrong to present causal comparative research as being without limitations. The main difficulties that have been associated with this type of research, other than those 'issues' already mentioned, are outlined below:

- Lack of control;
- Fallacy of homogeneity – the assumption that the group classification characteristic is the *only* characteristic which separates the two groups;
- There may be no single causal factor for an identifiable difference;
- Reverse causation – the assumption that, given that a cause and effect relationship is established, O causes X, when it may equally be that X causes O;
- Post hoc fallacy – the failure to consider competing explanations once a ‘relationship’ has been found.

In a sense, the first problem listed does not apply here, since the current researcher believes that causal comparative designs only exhibit a ‘lack of control’ in comparison with true experimental designs. There is more of a *balance* of control, such that the artificiality of the experiment is avoided, while at the same time the researcher is able to say confidently that O causes X.

In terms of the fallacy of homogeneity, the current researcher has attempted to match the groups as closely as possible. Of course, it would be impossible to have two groups of 30 children who *only* differ on one characteristic, but through a process of transparent inclusion criteria (see 6.4.2) and a great deal of help from schools, the current researcher believes that the children included in the final study are acceptably similar. As far as other causal variables are concerned, the current researcher believes that an open-minded approach to such investigations as this is the only way in which to conduct research, and is confident that any intervening variables will be identified.

The problem of reverse causation, in this case that low self-concept or self-esteem causes dyslexia, is so unlikely as not to merit much consideration. However, the idea that some children already had a low-self concept, which was exacerbated by their condition, cannot be ruled out. In considering this notion, the current researcher has come to the conclusion that this would not compromise the results, simply because in any given population, there are likely to be children with low self-concepts. Thus, if we looked at each of our sample *before* they were identified as being dyslexic (in fact,

before they even showed signs of it), we would expect some children to measure low on self-concept and self-esteem scores.

Finally, in considering the 'post hoc fallacy', the current researcher refers the reader to the explanation given above for multiple causal factors – research is a process of keeping your eyes open, and results can be different from what they appear. Alternative explanations must always be considered.

7

Results

The results of the study are presented in the order in which they were dealt with in the previous section. As an artefact of the various instruments used, the way in which participants are grouped alters across different sections. For instance, Marsh's (1990) Self Description Questionnaire appears in two versions, the first for 8-12 year-olds and the second for 13-17 year-olds. The different versions contain different questions and forms of marking, and are as such incompatible in terms of analysis. Thus, for the section on the Self Description Questionnaire, participants are grouped according to the version of the questionnaire which they completed.

The number of participants used for each instrument also differs in places. This happened for many reasons. Firstly, some instruments did not require a control group (e.g. the interviews). Secondly, some participants were not available to complete certain instruments. Thirdly, some participants gave incomplete responses on certain instruments (in which case they were excluded from the analysis).

The demographic details of the dyslexic participants in the study are shown in Table 26:

Group	N	Mean Age	Range
Dyslexic-mainstream	28	10.86	8-15
Specific learning difficulties Unit	35	11.11	8-15
Control	57	10.82	8-15
	Total N = 120		

Table 26. Demographic details of participants in the final sample.

Full details for each participant, including codes, school placement, and date of birth can be found in Appendix 7.

7.1 Interview Data

As reported in 6.1.4, the recording and analysis of interview data were performed using guidelines from the literature. Following Clemett and Pearce's (1986) advice, the researcher took extensive notes during interviews. Simple questions were coded and counted. More complex questions were bracketed and phenomenologically reduced as part of the note-taking process. In both cases, the researcher was interested in themes and trends within the sample, and possible differences between groups. For the purposes of clarity, the interview data is presented with the sample split into the two groups shown in Table 26. The format for reporting is adapted from Riddick (1996), upon which most of the questions are based.

7.1.1 Interview Results - Dyslexic-mainstream Group

As a prelude to the interview proper, participants were asked two warm-up questions by the researcher. This was done to introduce the participant to the interview context and to establish rapport (one question was "What do you like to do outside of school?", used to establish a common interest).

Dyslexia

Participants were asked what they understood by the word 'dyslexia'. It was considered that the child's perception and understanding of the difficulty they faced could radically influence their feelings about themselves. Responses were divided into several categories. A notable number of participants in the dyslexic-mainstream group claimed not to know what dyslexia was (N=7). Of those who did, 7 gave *general functional* explanations:

"It means you're backwards" (Child V)

"Learning difficulties" (Child Y & Child N)

“You need more help” (Child O)

A larger number of participants (N=10) gave *specific functional* explanations:

“You don’t remember word patterns and things” (Child T)

“You find it hard to read and write” (Child K)

“A lot of different things – reading, spelling, number, writing...” (Child U)

Finally, a small number of participants (N=4) gave explanations related to *other* factors, such as *disease*:

“Is it disease?” (Child D)

“Form of a disease” (Child P)

Participants were also asked what difficulties they had because of their dyslexia. The responses to this question are presented in Table 27:

Difficulty	N	% of Group
None or Don't Know	2	7
Reading	10	36
Spelling	13	46
Writing	6	21
Maths	4	14
English	1	4
Other, e.g. Telling Time, Memory	3	11

NB: Total percentage exceeds 100 because some participants named more than one difficulty.

Table 27. Difficulties experienced by participants in the dyslexic-mainstream group.

The age at which participants first began to have difficulties revealed a spread of responses, with the largest proportion (N=10) having 'had' dyslexia since they were 6 or 7. 3 participants claimed not to know when they started to have difficulties (also, some claimed not to have difficulties). For the rest, 4 participants stated that they had "always" had difficulties (or had had difficulties for as long as they could remember), 4 since they were 5 or younger, 4 between the ages of 8 and 9 and the final 3 since they were 8 or older. Given that the mean age of participants was 10.86, this meant that most participants had had difficulties for around 5 years.

The people who informed participants about their dyslexia are represented in Figure 6:

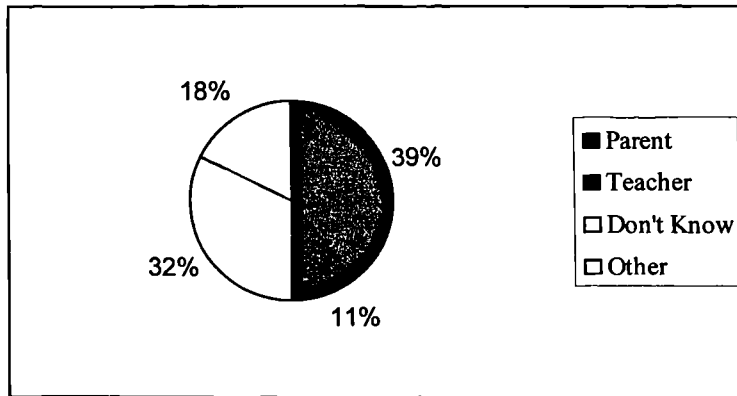


Figure 6. Range of people who informed participants in the dyslexic-mainstream sample about dyslexia.

Participants were then asked what they had been told dyslexia meant. This question was asked with a view to examining possible sources of their own understanding of the difficulty. Unfortunately, 50% of respondents (N=14) did not know or could not remember what they had been told dyslexia meant. Of those who could remember, 7 had been given general functional explanations, viz:

“Something wrong with your head” (Child E)

“It was that, like, I need more help because I’m dyslexic” (Child N)

“Stop me from learning” (Child P)

The remaining 7 participants had been given more specific functional explanations, viz:

“That I wasn’t very good at reading and writing, but I was good at maths” (Child C)

“Problems with my reading and writing” (Child K)

“Problem with spelling and reading” (Child M)

As a follow-on to the preceding two questions, participants were asked how it felt when they were told that they had dyslexia. Eight participants claimed to have expressed indifference, whilst 4 could not remember. 10 participants remember being upset or angry upon hearing the news, expressed in the following comments:

“I felt left out” (Child E)

“I felt stupid and thick” (Child M)

“I wasn’t very happy – I don’t like being dyslexic” (Child N)

Only 6 participants expressed any kind of relief at being diagnosed as dyslexic. Comments such as, “It made a lot of sense – the other school thought I was lazy” (Child C) were common in this sub-group.

Finally, participants were asked if they daydreamed or dreamt about not having dyslexia. 10 participants said that they daydreamed regularly. The remaining 18 denied daydreaming.

General Self-Concept and Self-Esteem

Participants’ favourite feature about themselves was usually something physical (N=10), such as “I’m small” (Child D), or “Talent at swimming” (Child E). Participants’ least favourite feature about themselves tended to be something academic-related (N=8), such as “Writing” (Child L), “Spelling – most problems with” (Child P), or “That I can’t read properly or write fast” (Child BB).

Participants felt most confident in school based situations (N=13), using reasons such as “When I get a good test mark” (Child U), and “In tests when I’ve only revised once and I know everything suddenly”(Child Y). However, when asked where they felt least confident, more than half of the participants (N=18) cited school-based situations, giving reasons such as “When... I can’t read” (Child U), “I couldn’t keep up” (Child Y), and “Someone has been bullying me”(Child Q).

More than half of participants in the dyslexic-mainstream sample (N=15) found it hard to talk in front of groups of people (such as in class or assembly). Most of the reasons given for this difficulty were concerned with nerves and embarrassment over mistakes:

“Scared to make mistakes” (Child L)

“I can’t even read my own writing” (Child N)

“I forget and get muddled” (Child P)

Finally, when asked to give one good word to describe themselves, the largest proportion of participants (other than the 10 who could not answer the question) (N=10) gave a personality trait, such as “Funny” (Child V), “Friendly” (Child Y), or “Happy” (Child Z). When asked to give one bad word to describe themselves, the largest proportion of participants (other than the 11 who could not answer the question) (N=8) gave an academic trait, such as “Dyslexic” (Child N), “[Bad] work” (Child R), or “Poor [at work]” (Child U).

Peer Relations

Participants were asked if they thought that other children noticed the difficulties that they had. Responses were even, with 50% (N=14) participants answering ‘yes’ and 50% answering ‘no’. When asked if they had been teased or bullied because of their difficulties, the responses were similar, with just under half of participants (N=13) stating that they had. Participants’ reactions to teasing and bullying ranged from getting angry or upset (Child U, Child BB) to ignoring taunts (Child V). Examples of teasing are shown below:

“[Participant’s name] got something wrong!” (Child E)

“They call you names sometimes” (Child G)

“They used to say ‘do this!’ and I couldn’t” (Child K)

“I’m in the park and these lads go ‘spell this!’ and if I get it wrong they start laughing at me... it makes me upset” (Child N)

15 of the 28 participants in the dyslexic-mainstream sample said that they felt excluded by others on the basis of their difficulties. When asked to explain further, they gave the following reasons:

“It makes me feel sad” (Child K)

“When everyone’s writing dead quickly and racing ahead” (Child M)

“If there is hard stuff to do” (Child P)

“I feel like I’m one person in the whole class” (Child E)

Just under half (N=13) of the participants indicated a wish to swap places with someone else in their class. In the interests of confidentiality, the researcher probed by asking for a generic description of the person (e.g. the most popular child, the tallest child), rather than their identity. Responses included “Some friends” (Child X), “Teacher – she knows loads of things” (Child BB), and “Someone that’s not dyslexic” (Child L).

Finally, participants were asked if they had tried to explain their difficulties to other children. 17 had not. Of the 11 who had tried, responses by other children ranged from understanding and help (Child O reported that he told his friends that he “need[s] more help”, and they helped him; Child X reported that “they [friends] help you more) to further teasing (“I just gave it a go and gave up” - Child AA).

Teacher-Pupil Relations

Participants were asked in what ways, if any, their teachers tried to help them overcome their difficulties. Only 5 participants claimed that their teachers did not

help them. Of the rest, the overwhelming majority (N=21) gave examples of receiving more attention, viz:

“When I need help they go over things” (Child D)

“They help me with my handwriting and spellings” (Child E)

“When I’m stuck she comes across to help me” (Child J)

“They let me get more attention” (Child M)

Although most participants reported that their teachers tried to help them, 13 related experiences (mostly prior to diagnosis) where teachers had upset them because of a lack of understanding or empathy relating to their difficulties:

“The headmaster didn’t believe in dyslexia” (Child C)

“They told me I’m a bit slow and messy” (Child E)

“I’ve got a problem and they say ‘put your hand down’” (Child G)

“R.E. teacher, because I didn’t write neat enough” (Child L)

“Sometimes in science I’m quite slow and he says, ‘hurry up!’” (Child M)

As a follow on to the preceding question, participants were asked a closed format question in which they were required to indicate which of the terms ‘lazy’, ‘stupid’, ‘messy’ or ‘other’ they had been called by a teacher. The responses are seen in Figure 7:

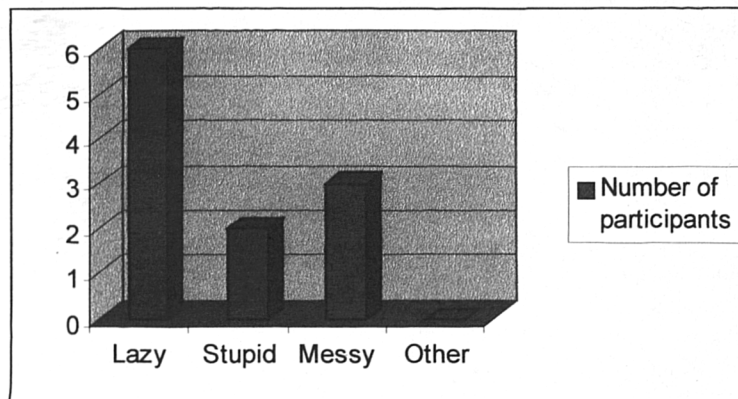


Figure 7. Labels given by teachers to dyslexic pupils.

Academic Self

Participants were asked if the difficulties they encountered ever made them feel lazy, stupid or messy. 19 of the 28 participants indicated that their difficulties did not encourage these feelings. Of those whose difficulties did affect them in this way, 5 felt stupid, 3 felt lazy and one felt messy. Examples of the reasoning behind these claims is seen below:

“Sometimes I feel stupid when I can’t do my spellings” (Child M)

“I always think I’m stupid and I get into a temper” (Child N)

“When you’re writing, you can’t be bothered to think of a word, and you’re lazy” (Child X)

Participants were then asked what their favourite subjects at school were. Where possible, they were required to justify their choice. The responses are seen in Figure 8:

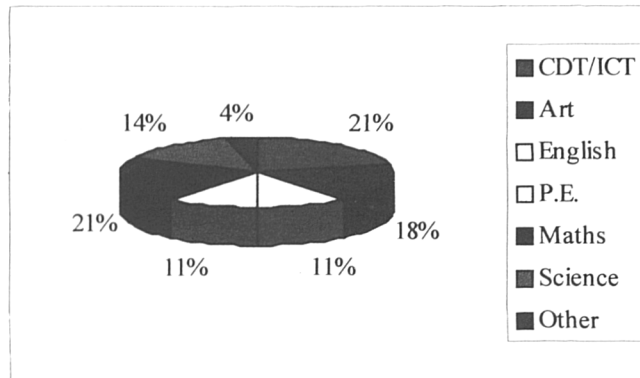


Figure 8. Favourite subjects of participants in the dyslexic-mainstream sample.

Reasons for the choice of favourite subject tended to reflect the fact that particular subjects allowed participants to escape some aspect of their difficulties, viz:

“Art – you only have to write a tiny bit” (Child G)

“Art, because you can make loads of things” (Child J)

“Drama – you can act and you can speak and you don’t have to do any writing” (Child N)

“Computers – help spell check” (Child P)

“P.E. – you don’t have to read and write” (Child X)

Participants were also asked to name their least favourite subject (and justify this choice). Responses are seen in Figure 9:

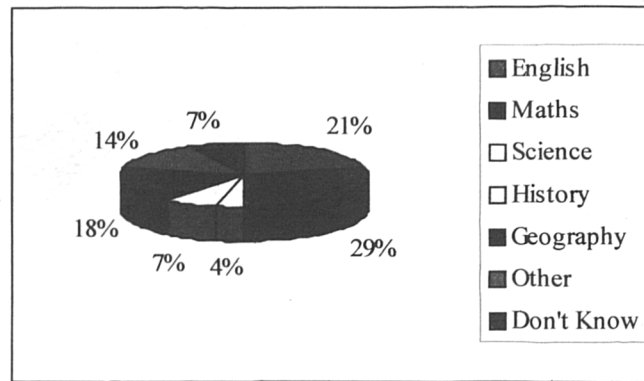


Figure 9. Least favourite subjects of participants in the dyslexic-mainstream sample.

As with the previous question, reasons for choice of subject were related to the participants' difficulties, viz:

“Literacy – [you have to do] writing” (Child G)

“English – I feel as if I’m left out and I always get told off” (Child E)

“[English] – trying to figure out words” (Child C)

“French – I’ve got to learn to spell a new language” (Child Y)

As a follow-on to the questions about favourite and least favourite subjects, participants were asked if they thought that having dyslexia changed whether they liked or disliked certain subjects. Over half (N=15) of participants said that dyslexia did not affect how they viewed different subjects. Of those who said that it did (N=11), the most common reasons were as follows:

“It depends on what subject” (Child E)

“I don’t like maths because of dyslexia” (Child N)

“In science you have all mad words to write down and you have to spell it” (Child M)

“It’s harder to do some subjects” (Child U)

Participants were asked how intelligent they felt they were in comparison with other children their age. The results are seen in Figure 10:

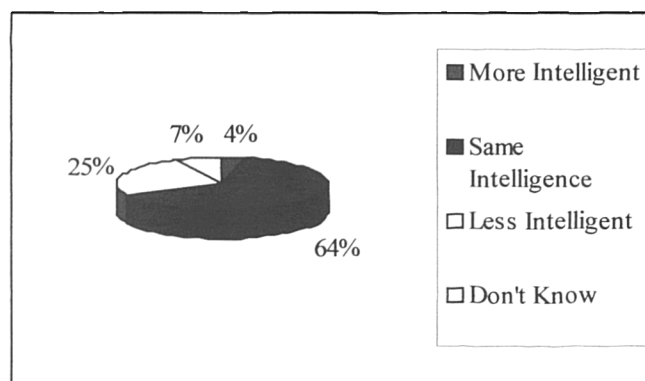


Figure 10. Perceived comparative intelligence levels of the dyslexic-mainstream sample.

Towards the end of the interview, participants were asked to choose one area of their schoolwork that they would like to change/improve. They were also given the option of explaining why they made a particular choice. The choices made are displayed in Figure 11 (reasons follow):

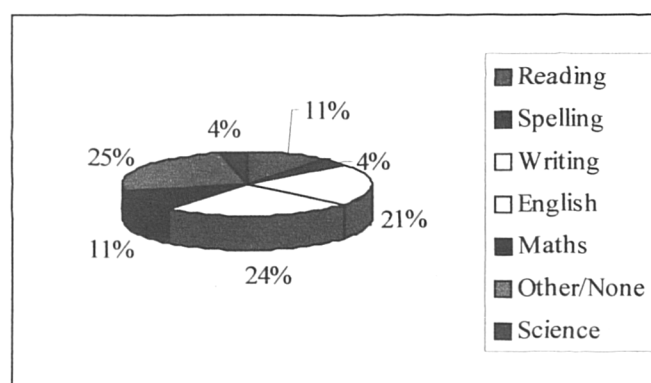


Figure 11. Areas for change/improvement in the dyslexic-mainstream sample.

“My word work – I would have less problems with dyslexia” (Child C)

“To read properly” (Child BB)

“Spelling – I’d like to be better” (Child M)

Finally, participants were asked if dyslexia changed the way they see themselves at school. Although most (N=17) said that it didn’t, 8 participants felt that dyslexia definitely changed their perceptions of themselves, and gave the following reasons (mainly concerned with feeling different or excluded):

“I feel different sometimes, because I’m the only one...” (Child N)

“They can read and write properly” (Child BB)

“They can read and I can’t” (Child F)

7.1.2 Interview Results – Specific Learning Difficulties Group

The specific learning difficulties group were interviewed using a modified version of the dyslexic-mainstream interview schedule, which included 3 additional questions pertaining to the work which they did at their respective units. As with the dyslexic-mainstream sample, two warm-up questions were used to introduce the interview context and establish rapport.

NB: For certain questions, only data from 27 participants are included. In these cases, the Specific learning difficulties Unit pupils from the pilot sample were not asked the question. Such instances are indicated by ‘(N=27)’.

Dyslexia

Participants were asked what they understood by the word “dyslexia”. 5 participants claimed not to know what it meant. Of those who gave an answer, the largest proportion by far (N=20) gave *specific functional explanations*. Examples of these are shown below:

“You can read, but you’ve just got a bit of a learning difficulty with reading and writing” (Child QQ)

“You’ve got problems with spelling and you can’t read very well” (Child II)

“You’ve got a problem that you can’t read and write as good as other people” (Child JJ)

“Can’t read, get your ‘b’s’ and ‘d’s’ mixed up “ (Child SS)

6 other participants gave more general functional explanations, such as, “You’ve got learning difficulties, and it’s with you for life” (Child EE), and “[You’ve] got something wrong with you, you need help with your work” (Child VV). The smallest proportion of participants (N=4) gave miscellaneous explanations, usually related to physiology:

“A problem in your brain” (Child OO)

“Half your brain doesn’t work” (Child NN)

Participants were then asked what difficulties they had because of dyslexia. The results are shown in Table 28:

Difficulty	N	% of Group
None/Don't Know	7	20
Reading	17	52
Spelling	16	51
Writing	9	25
Maths	2	6
English	2	6
Other, e.g. bullying	5	14

NB: Total percentage exceeds 100 because some participants named more than one difficulty.

Table 28. Difficulties experienced by participants in the specific learning difficulties group.

7 participants did not know (or could not remember) when their difficulties had started. Of the rest, the largest proportion (N=14) had had difficulties since they were 6-7. 7 participants had had difficulties since they were 5 or under, and 6 had had difficulties since they were 8-9. The remaining 2 participants had only had difficulties since they were 10 or over. Given that the mean age of participants was 11.11, this meant that most participants had had difficulties for around 5 years.

The people who informed participants about their dyslexia is seen in Figure 12:

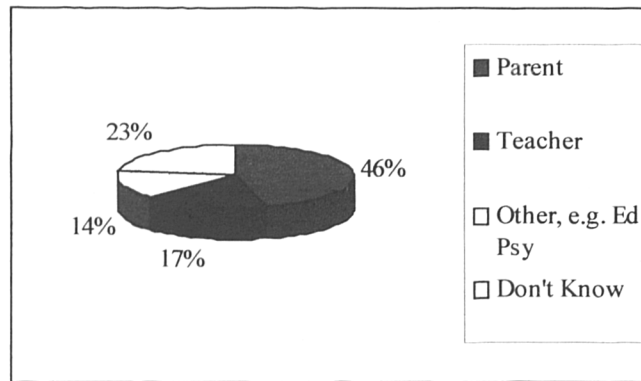


Figure 12. Range of people who informed participants in the specific learning difficulties sample about dyslexia.

Participants were then asked what they had been told ‘dyslexia’ meant. 10 of the participants could not remember (or did not know). The responsive participants mirrored the answers given for *their* understanding of dyslexia, with the largest proportion (N=17) opting for *specific functional* explanations:

“Putting things down on paper properly, and reading” (Child OO)

“[I was told that] I found it hard reading, but I could get a laptop” (Child NN)

“Spelling and reading aren’t good” (Child EE1)

“Problem with reading and spelling, and I’m behind” (Child FF1)

7 participants had been given general functional explanations, mostly involving the phrase ‘learning difficulties’ (i.e. “A bit of a learning difficulty” – Child QQ). The remaining participant had been told that his brain “wasn’t wired up properly” (Child PP).

When they were told that they had dyslexia, the largest proportion of participants (N=15) claimed to have expressed indifference. The next largest proportion (N=6) were upset or angry at the news, as the following comments show:

“Scared, because I thought it was a disease” (Child GG)

“Upset – they kept it a secret” (Child KK)

“[It] bothered me... upset... [I] thought I was weird, I didn’t fit in and people would laugh at me” (Child FF1)

Only 1 participant expressed anything approaching relief when they were told they had dyslexia.

Finally, participants were asked if they daydreamed or dreamt about not having dyslexia. 59% (N=16) of those who responded (N=27) to this question denied daydreaming. The remaining 41% (N=11) of those who responded said that they regularly dreamt (or daydreamed) about not having dyslexia.

The Unit

Participants were asked how long they had been coming to the unit they attended. The responses are shown in Figure 13:

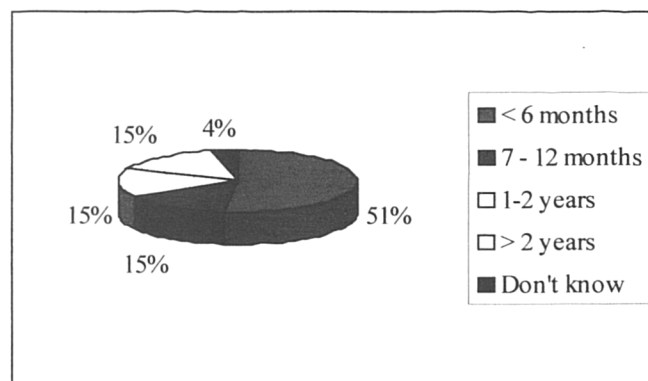


Figure 13. Length of time participants in the specific learning difficulties group had been attending their respective units.

Participants (N=27) were then asked if the unit was any different to the previous school(s) they had attended. Only 3 participants said that the unit they attended was the same as their previous school. 13 participants claimed that they received more support and attention at the specific learning difficulties unit, thus:

“More support” (Child HH)

“Spend more time with you” (Child II)

“At primary I wasn’t getting help with my work” (Child VV)

Of the remaining participants, 5 stated that they received more work at the unit, and 4 said that the work was “easier”.

General Self-Concept and Self-Esteem

Participants’ favourite feature about themselves was either something academic (N=8), such as “Good at art” (Child YY) and “Ideas” (Child GG1), or something physical (N=9), such as “Fast runner” (Child DD1) and “Playing golf well” (Child EE1). A large number of participants (N=12) could not think of a favourite feature.

As with the previous question, a large number of participants (N=14) could not think of a least favourite feature about themselves. Of those who could answer, the largest proportion of participants (N=12) cited academic features, viz:

“Writing and spelling” (Child CC1)

“English – not good at it” (Child FF1)

“Dyslexia” (Child KK)

Participants felt most confident in school-based situations (N=9), using reasons such as “When I’m doing good” (Child SS) and “Because I’m good at maths and IT” (Child ZZ). An equal number of participants felt confident with their friends (N=9), because “They help me” (Child UU). When asked about when they felt least confident, the overwhelming majority (N=19) cited school-based situations. The most typical reasons are outlined below:

“[I can’t] do some things that everyone else can” (Child QQ)

“When I’m doing a reading test” (Child II)

“When I’m doing me work” (Child VV)

Most of the participants (N=21) stated that they found it difficult to talk in front other people. Most of the reasons given for this difficulty were concerned with fear of ridicule and embarrassment:

“Because they’ll laugh” (Child SS)

“Sometimes people talk when I’m trying to read” (Child UU)

“Sometimes I get embarrassed” (ChildYY)

Finally, when asked to give one good word to describe themselves, the largest proportion of participants (N=12) gave an academic trait, such as “Smart” (Child JJ1), “Hardworking” (Child KK1), or “Cleverish [sic]” (Child XX). When asked to give one bad word to describe themselves, the largest proportion (N=13) gave personality traits, such as “Angry” (Child RR), or “Bad-tempered” (Child SS).

Peer Relations

Participants were asked if they thought that other children noticed the difficulties that they had. The overwhelming majority (N=25) answered ‘yes’. When asked if they had been teased or bullied because of their difficulties, just under half (N=15) of the participants said that they had. Participants’ reactions to teasing and bullying ranged from getting angry or upset (Child II, Child LL) to ignoring taunts (Child RR, Child VV). Examples of teasing are shown below:

“Here’s the boy who can’t hold a pencil!” (Child EE)

“Bin-brain” “Dyslexia dweeb” (Child CC)

“Ha! You’re thick!” (Child LL)

16 of the 35 participants in the specific learning difficulties unit sample said that they felt excluded by others on the basis of their difficulties. When asked to explain further, they gave the following reasons:

“In the other school, I used to have to do separate work” (Child SS)

“Odd one out” (Child XX, Child ZZ)

“In my old school, in a hard lesson” (Child DD1)

Just under half (N=16) of the participants indicated a wish to swap places with someone else in their class. In the interests of confidentiality, the researcher probed by asking for a generic description of the person (e.g. the most popular child) rather than their identity. Responses included “My sister – she’s mainstream” (Child HH1), “Someone who’s undyslexic [sic]” (Child SS), and “A popular boy” (Child UU).

Finally, participants were asked if they had tried to explain their difficulties to other children. 25 had not. Of the 10 who had tried, responses by other children tended to manifest in further teasing, i.e. “They just laugh” (Child EE), “They tell me not to make excuses” (Child CC).

Teacher-Pupil Relations

Participants (N=27) were asked what ways, if any, their unit teachers tried to help them overcome their difficulties. 6 participants did not know (or claimed that their teachers didn’t help them). Of the rest, the overwhelming majority (N=13) gave examples of receiving more care/explanations from their teachers:

“Give me a clue for tests” (Child KK)

“They explain it to us more” (Child JJ)

“Help us read and spell and read and write and lots of things” (Child VV)

Participants were also asked if their teachers at their previous (mainstream) school had understood their difficulties. Nearly half of the sample reported that their previous teachers had not understood their difficulties. Examples included:

“They shout at you for not doing work” (Child HH1)

“They said I was slow” (Child FF1)

“Not until Year 5” (Child WW)

Participants were asked if any other teacher had made them upset because they had not understood their difficulties. 12 participants related examples, including:

“My primary substitute teacher refused to give help and sent me to the headmaster” (Child AA1)

“When they say you’re dyslexic and they shout at you when you don’t know what they mean” (Child KK1)

“I had a supply teacher who wouldn’t help me – I just feel invisible” (Child II)

As a follow-on to the preceding question, participants were asked a closed format question in which they were required to indicate which of the terms ‘lazy’, ‘stupid’, ‘messy’ or ‘other’ they had been called by a teacher. The responses are seen in Figure 14:

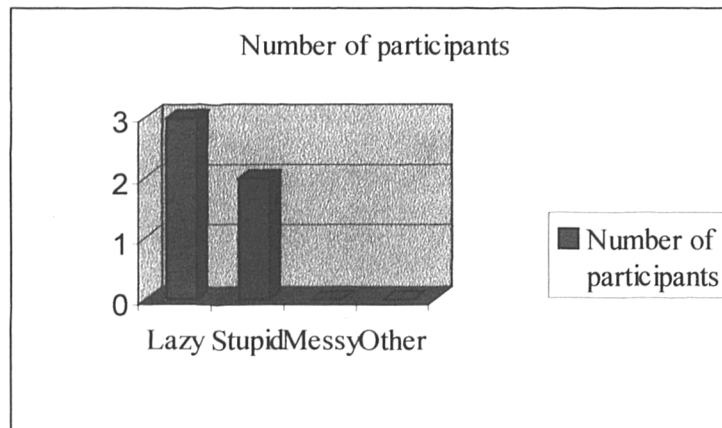


Figure 14. Labels given by teachers to dyslexic pupils.

Academic Self

Participants were asked if their difficulties ever made them feel lazy, stupid or messy. 24 participants responded in the negative. 4 of the participants said that they felt messy, 3 felt stupid, and 3 felt lazy. However, none were particularly forthcoming with reasons, despite the researcher's probes.

Participants were then asked what their favourite subject at school was. Where possible, they had to justify their choice. Responses are seen in Figure 15:

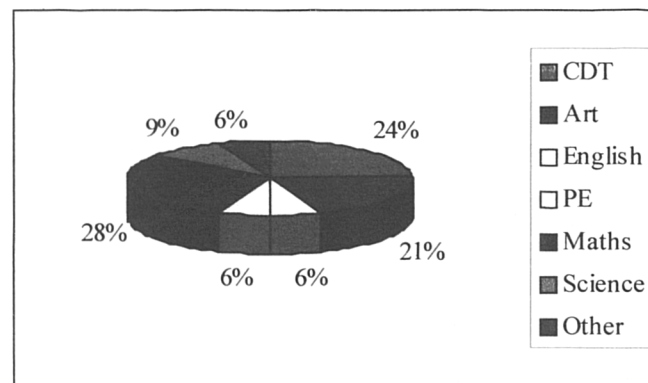


Figure 15. Favourite subjects of participants in the specific learning difficulties unit sample.

Reasons for the choice of favourite subject tended to reflect the fact that particular subjects allowed participants to escape some aspect of their difficulties:

“You get to do things and play [PE]” (Child OO)

“I’m in the unit, and if I was in the other classroom and I couldn’t do it, I felt I’d get skitted [sic] a lot [Maths]” (Child CC)

“Technology – you don’t write as much” (Child KK1)

“Technology – you can work with your hands and make stuff” (Child II1)

Participants were also asked to name their least favourite subject (and justify this choice). Responses are seen in Figure 16:

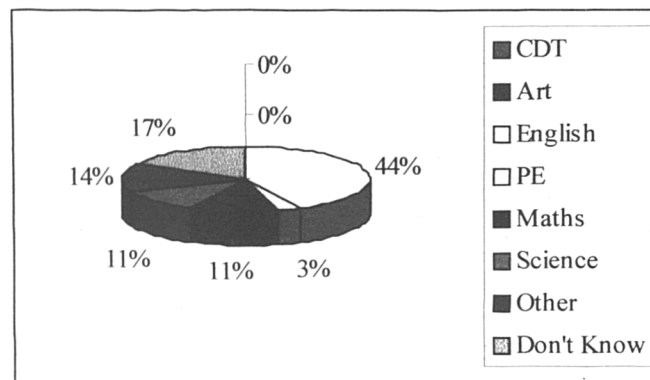


Figure 16. Least favourite subjects of participants in the dyslexic-mainstream sample.

As with the previous question, reasons for the choice of subject were related to the participants’ difficulties, viz:

“Science – they don’t go through it with you” (Child II)

“You have to write 2 pages” (Child EE)

“Lots of writing” (Child II1)

“Creative English – I don’t like writing” (Child AA1)

As a follow-up to the questions about favourite and least favourite subjects, participants were asked if they thought that having dyslexia changed whether they liked or disliked certain subjects. Around two-thirds (N=23) said that dyslexia did not affect how they viewed different subjects. Of those who said that it did (N=12), the most common reasons were:

“You dislike reading” (Child UU)

“You dislike subjects where you read and write” (Child HH1)

“You might not like history because there’s loads of big words” (Child BB1)

Participants were asked how intelligent they felt in comparison with other children their age. The results are seen in Figure 17:

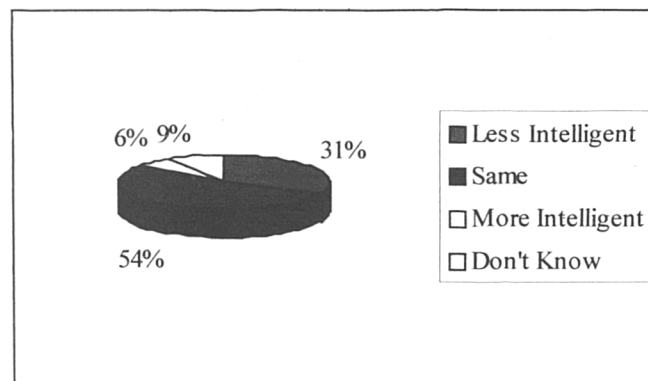


Figure 17. Perceived comparative intelligence levels of the specific learning difficulties unit sample.

Towards the end of the interview, participants were asked to choose one area of their schoolwork which they would like to improve/change. They were also given the option of explaining why they made a particular choice. The choices made are displayed in Figure 18 (reasons follow):

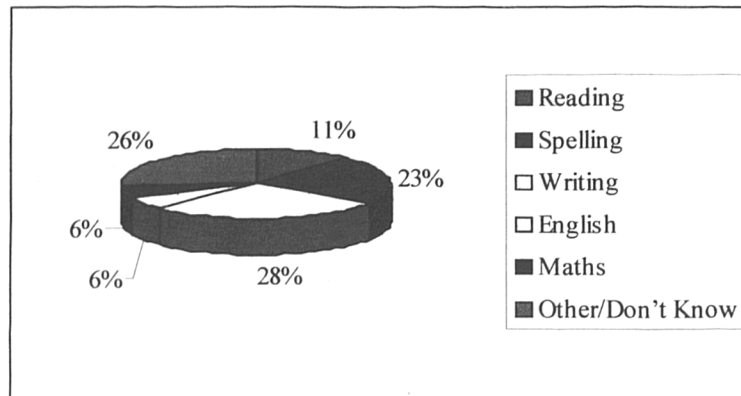


Figure 18. Areas for change/improvement in the specific learning difficulties sample.

“My writing – I hate it” (Child ZZ)

“I don’t like writing page 8 out again and spelling mistakes” (Child YY)

“I want to spell properly” (Child XX)

“My speed on writing” (Child SS)

Finally, participants were asked if having dyslexia changed the way they see themselves at school. Although the largest proportion (N=23) said that it didn’t, 12 participants felt that dyslexia definitely changed their perceptions of themselves, and gave the following reasons (mainly concerned with feeling different or excluded):

“I don’t like school” (Child LL)

“It makes me feel different” (Child YY)

“Feeling different” (Child JJ1)

“Everyone thinks you’re thick but you know you’re not” (Child HH1)

7.2 Self-Description Questionnaire

As mentioned at the beginning of this chapter, Marsh's (1990) SDQ appears in three different versions. The SDQ-1 is calibrated for 8-12 year-olds, the SDQ-2 for 13-17 year-olds, and the SDQ-3 for those over the age of 17. The different versions contain different questions and produce different profiles, and as such are incompatible in terms of statistical analysis. As a result of this, the analysis for this section of the research is split into two causal comparative designs (Control vs. specific learning difficulties vs. Dyslexic-mainstream), one for the SDQ-1 and another for the SDQ-2.

7.2.1 SDQ-1

The descriptive statistics for the SDQ-1 (including mean scores) are shown in Table 29:

Group	N	Mean Age	Mean Physical Abilities		Mean Physical Appearance		Mean Peer Relations		Mean Parental Relations		Mean Reading		Mean Math		Mean General School		Mean General Self		Mean Total Non-academic		Mean Total Academic		Mean Total Self	
			Physical Abilities	Physical Appearance	Peer Relations	Parental Relations	Reading	Math	General School	General Self	Total Non-academic	Total Academic	Total Self											
Control	19	9.6	33.3	29.2	30.8	36.1	33.5	32.8	31.4	34.9	32.5	32.3	32.4	32.4										
Specific learning difficulties	19	9.7	33.8'	27.7	30.4	35.9	32.7	31.5	26.4	33.2	32.4	30.2	31.3	31.3										
Dyslexic-mainstream	20	9.8	27.5	18.8	29	36.6	28.5	30.2	23.3	31.6	28.3	27.4	27.9	27.9										

Table 29. Descriptive statistics for the SDQ-1 analysis.

Using the mean scores and mean ages, a T-score profile was drawn up for each group, using the instructions detailed in Marsh (1990). The T-score profile is displayed in Figure 19:

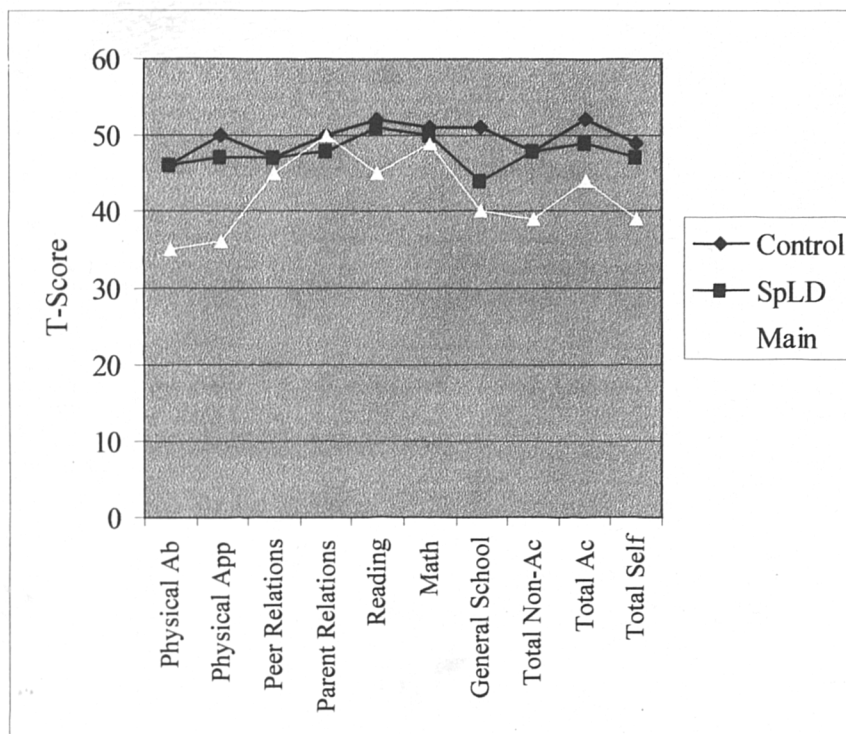


Figure 19. Mean SDQ-1 T-score profiles for the control, specific learning difficulties and dyslexic-mainstream groups.

The accompanying percentiles (drawn from a normative sample) for each T-score are displayed in Table 30:

Group	Percentile												
	Physical Abilities	Physical Appearance	Peer Relations	Parental Relations	Reading	Math	General School	Total Non-academic	Total Academic	Total Self			
Control	28	46	33	41	47	47	50	36	52	45			
Specific learning difficulties	28	38	33	33	43	43	26	36	42	37			
Main	10	13	29	41	28	40	16	17	26	14			

Table 30. Mean SDQ-1 percentile scores for the control, specific learning difficulties and dyslexic-mainstream groups.

A one-way analysis of variance (ANOVA) was performed on the data to investigate differences between the 3 groups. Significant main effects were found for the self-concept of physical abilities ($F(2, 57) = 7.486, p=.001$), physical appearance ($F(2, 57) = 14.237, p=.000$), reading ($F(2, 57) = 3.230, p=.047$), general school ($F(2, 57) = 5.912, p=.005$), total non-academic ($F(2, 57) = 6.977, p=.002$), total academic ($F(2, 57) = 3.204, p=.048$), and total self ($F(2, 57) = 5.975, p=.004$) scales.

Post-hoc Tukey HSD analyses revealed that for self-concept of physical abilities, the control ($p=.007$) and specific learning difficulties ($p=.003$) groups had significantly higher scores than the dyslexic-mainstream group. There was no significant difference between the control and specific learning difficulties groups for this scale ($p>.05$). For self-concept of physical appearance, both the control ($p=.000$) and specific learning difficulties ($p=.000$) groups had significantly higher scores than the dyslexic-mainstream group. Again, there was no significant difference between the control and specific learning difficulties groups for this scale ($p>.05$). For self-concept of reading, no significant between group differences were found ($p>.05$). For the self-concept of general school scale, the control group scored significantly higher than the dyslexic-mainstream group ($p=.003$), but there were no significant differences between the control and specific learning difficulties groups ($p>.05$), or the specific learning difficulties and dyslexic-mainstream groups ($p>.05$). For the self-concept of total non-academic self scale, both the control group ($p=.005$) and the specific learning difficulties group ($p=.007$) scored significantly higher than the dyslexic-mainstream group. There were no significant differences between the specific learning difficulties group and the control group for this scale ($p>.05$). For the total academic scale, the control group scored significantly higher than the dyslexic-mainstream group ($p=.038$), but there were no significant differences between the control group and the specific learning difficulties group ($p>.05$), or the Specific learning difficulties group and the dyslexic-mainstream group ($p>.05$). Finally, for the total self scale, both the control group ($p=.005$) and the specific learning difficulties group ($p=.040$) scored significantly higher than the dyslexic-mainstream group. There were no significant differences between the control group and the specific learning difficulties group for this scale.

7.2.2 SDQ-2

The descriptive statistics for the SDQ-2 are shown in Table 31:

Group	N	Mean Age	Math	Physical		General Honesty	Physical Abilities	English	Emotion	Parental Relations	General		Total	
				Appearance	Self						Same Sex	Opposite Sex		
Main	8	13.5	34	27.63		43.88	46	31.5	38.75	45.88	34.75	48.63	33.75	416.38
Specific learning difficulties	10	13.6	43.3	28.1		50.1	49.2	32.3	37.8	44.2	38.4	49.3	30.9	440.3
Control	10	14.18	32.2	29.1		48.7	41	34.2	43.7	39.5	40	50.7	29.5	422.2

Table 31. Descriptive statistics for the SDQ-2 analysis.

Using the mean scores and mean ages, a T-score profile was drawn up for each group, using the instructions detailed in Marsh (1990). The T-score profile is displayed in Figure 20:

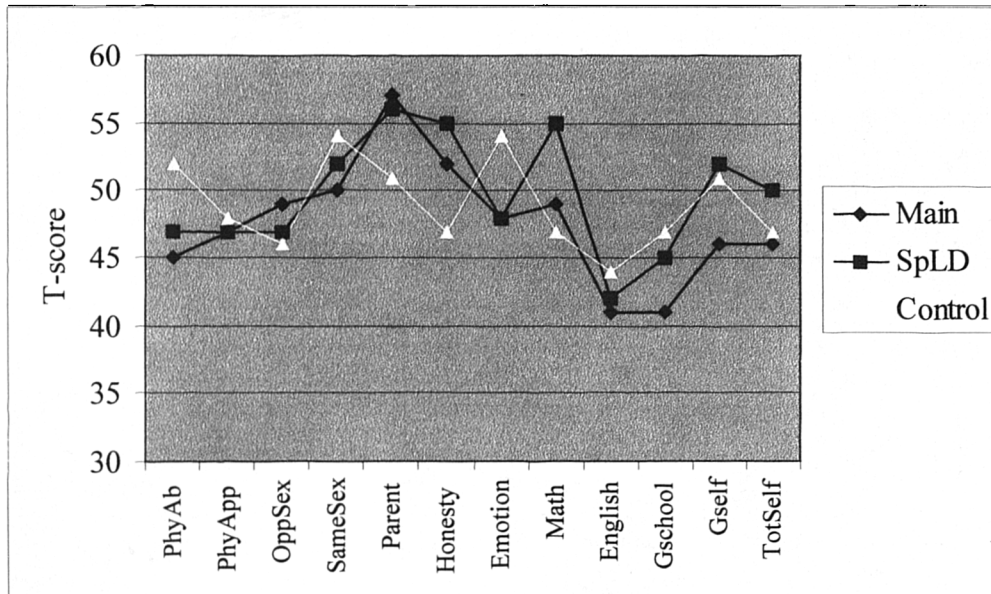


Figure 20. Mean T-score profiles for the dyslexic-mainstream, specific learning difficulties and control groups.

The accompanying percentiles (drawn from a normative sample) for each T-score are displayed in Table 32:

Group	Percentile											
	Physical Abilities	Physical Appearance	Opposite Sex	Same Sex	Parental Relations	Honesty	Emotion	Maths	English	General School	General Self	Total Self
Main	28	36	41	48	72	52	41	44	20	18	28	35
Specific learning difficulties	34	36	29	53	66	64	41	67	22	28	50	48
Control	49	40	29	65	45	33	63	39	28	34	45	39

Table 32. Mean SDQ-2 percentile scores for the control, specific learning difficulties and dyslexic-mainstream groups.

A One-Way ANOVA was performed on the data to investigate differences between the 3 groups. A significant main effect was found for self-concept of parental relations ($F(2, 27) = 4.853, p=.017$). No other main effects were found by the ANOVA ($p>.05$).

A post-hoc Tukey HSD test revealed that for self-concept of parental relations, the dyslexic-mainstream group scored significantly higher than the control group ($p=.019$).

7.3 Attribution Questionnaire

The descriptive statistics for the attribution questionnaire (including mean scores) are shown in Table 33:

	Dyslexic (N=61)		Control (N=57)	
	Success (N=30)	Failure (N=31)	Success (N=28)	Failure (N=29)
Ability	2.84	2.10	3.42	3
Difficulty of Subject	2.9	2.83	2.81	2.7
Effort	3.61	2.17	3.54	3.19
Difficulty of Test	3	2.77	2.85	3.11
Revision	3.1	2.5	2.81	2.7
Quality of Teacher	3.39	2.4	2.77	3
Interest in Subject	3.45	1.67	3.27	2.63
Conditions at Home	2.94	1.8	2.92	2.74
Mean Age:	11.1		11.26	

Table 33. Descriptive statistics for the attribution questionnaire.

A multi-variate analysis of variance (MANOVA) was performed on the participants' ratings of the eight causes, using 2 x 2 factorial design (group x outcome). The analysis revealed significant main effects for group ($F(3, 113) = 3.456, p=.001$), outcome ($F(3, 113) = 9.454, p=.000$), and group x outcome ($F(3, 113) = 3.297, p=.002$). It was the latter of these results that the current researcher was most interested in.

Within the significant main effect of group x outcome, several significant interactions were found. Firstly, a significant interaction for effort attribution was found ($F(1, 113) = 8.467, p=.002$), indicating that failing control participants attributed their outcome more to effort than dyslexic participants. Secondly, a significant interaction for quality of teacher attribution was found ($F(1, 113) = 9.869, p=.002$), indicating that successful dyslexic participants attributed their outcome to quality of teacher more than control participants. Thirdly, a significant interaction for interest in subject attribution was found ($F(1, 113) = 11.654, p=.001$), indicating that failing control participants attributed their outcome more to interest in subject than dyslexic participants. Finally, a significant interaction for conditions at home was found ($F(1, 113) = 4.435, p=.037$), indicating that failing control participants attributed their outcome more to conditions at home than dyslexic participants.

7.4 Semantic Differential Scale

The descriptive statistics (including mean discrepancy scores) for this instrument are seen in Table 34:

Group	N	Mean Age	Reading	Spelling	Writing	Hardworking	Intelligence	Maths	English	Neatness	Popularity	Importance
Main	23	10.86	2.52	2.96	2.83	1.65	1.70	1.83	2.65	2.04	2.22	1.96
Specific learning difficulties	28	11.52	1.25	2.21	1.54	1.29	1.54	1.39	2.04	.93	1.32	1.18
Control	29	12.00	.83	1.28	1	1.28	.69	1.17	.66	1.34	.66	.76

Table 34. Descriptive statistics for the semantic differential scale.

A One-Way ANOVA was performed to investigate possible differences between the groups. Significant main effects were found for the self-esteem of reading ability ($F(2, 79) = 9.874, p=.000$), spelling ability ($F(2, 79) = 6.987, p=.002$), writing ability ($F(2, 79) = 8.078, p=.001$), intelligence ($F(2, 79) = 3.689, p=.030$), English ability ($F(2, 79) = 13.671, p=.000$), neatness ($F(2, 79) = 3.643, p=.031$), popularity ($F(2, 79) = 6.677, p=.002$), and importance ($F(2, 79) = 4.310, p=.017$) scales.

Post-hoc Tukey HSD analyses were performed to investigate the between-group differences. The analyses revealed that the dyslexic-mainstream group had significantly lower levels of self-esteem related to reading ability than both the specific learning difficulties ($p=.005$) and the control ($p=.000$) groups. There was no significant difference between the specific learning difficulties and control groups for this scale. For spelling ability, the dyslexic-mainstream group had significantly lower levels of self-esteem than the control group ($p=.001$), but there were no significant differences between the specific learning difficulties group and either the control or dyslexic-mainstream groups ($p>.05$). For writing ability, the dyslexic-mainstream group had significantly lower levels of self-esteem than both the specific learning difficulties group ($p=.019$) and the control group ($p=.000$). There was no significant difference between the specific learning difficulties group and the control group for this scale ($p>.05$).

For self-esteem related to level of intelligence, the only significant between-group difference was between the dyslexic-mainstream group and the control group ($p=.043$) (with the dyslexic-mainstream group showing lower self-esteem). For ability in English, both the dyslexic-mainstream ($p=.000$) and specific learning difficulties ($p=.001$) groups showed significantly lower levels of self-esteem than the control group. There was no difference between the specific learning difficulties group and the dyslexic-mainstream group for this scale ($p>.05$). For self-esteem related to neatness, the only significant between-group difference was between the dyslexic-mainstream and specific learning difficulties groups ($p=.024$), with the dyslexic-mainstream group displaying lower self-esteem. For popularity, the only significant between-groups difference was between the dyslexic-mainstream and the control groups ($p=.001$), with the dyslexic-mainstream group displaying lower levels of self-esteem. This difference between the dyslexic-mainstream and control groups

was mirrored in the final scale, importance, with the dyslexic-mainstream group showing significantly lower levels of self-esteem ($p=.013$). There were no other significant differences for this scale ($p>.05$).

7.5 Lawrence (1996) Self-Esteem Checklist

As stated in Chapter 6, Lawrence's (1996) self-esteem checklist was modified by the current researcher in order to make it amenable to statistical analysis, and to increase the instrument's depth.

The checklists for each participant were filled in by the teachers *who had most contact with that child*. The descriptive statistics (including mean frequency of behaviour scores) for this instrument are presented in Table 35:

Group	N	Mean	SD	B	T	AS	R	P	F	A	DD	AW	Bl	Re
		Age												
Main	23	10.86	1.26	1.13	2.35	1.7	1.83	1.22	1.83	1.61	1.91	1.48	1.26	1.74
Specific learning difficulties	34	11.11	1.53	1.74	2.1	1.76	2.18	1.21	1.82	1.76	1.62	1.82	1.68	1.79
Control	26	12.00	1.27	1.12	1.42	1.23	1.35	1.08	1.38	1.23	1.23	1.23	1.12	1.12

NB: See Appendix 8 for key to headings in Table 35.

Table 35. Descriptive statistics for the self-esteem checklist.

A One-Way ANOVA was performed to investigate possible differences between the groups. Significant main effects were found for the frequency of boastful behaviour ($F(2, 82) = 11.656, p=.000$), timid behaviour ($F(2, 82) = 10.883, p=.000$), avoidance of possible stress ($F(2, 82) = 5.211, p=.007$), seeking reassurance/help ($F(2, 82) = 11.247, p=.000$), remaining on the fringe of a group ($F(2, 82) = 3.798, p=.027$), apathetic behaviour in learning situations ($F(2, 82) = 3.717, p=.029$), daydreaming ($F(2, 82) = 5.190, p=.008$), avoidance of work ($F(2, 82) = 4.903, p=.010$), blaming others for personal failure ($F(2, 82) = 6.725, p=.002$), and reluctance to assume responsibilities ($F(2, 82) = 8.934, p=.000$) items.

Post hoc Tukey HSD analyses revealed that both the dyslexic-mainstream ($p=.000$) and the control groups ($p=.001$) were significantly less likely to *display boastful behaviour* than the specific learning difficulties group. There was no significant difference between the dyslexic-mainstream and control groups for this item ($p>.05$). The analyses also revealed that the control group were significantly less likely to display *timid behaviour* than the dyslexic-mainstream group ($p=.000$) and the specific learning difficulties group ($p=.002$). There was no significant difference between the dyslexic-mainstream and specific learning difficulties groups for this item. The control group were also significantly less likely to *avoid situations of possible stress* than the dyslexic-mainstream ($p=.045$) and specific learning difficulties groups ($p=.008$). Again, however, there were no significant difference between the specific learning difficulties and dyslexic-mainstream groups for this item ($p>.05$).

The control group were significantly less likely to *continually ask for help and reassurance* than the dyslexic-mainstream ($p=.039$) and specific learning difficulties groups ($p=.000$). There was no significant difference between the specific learning difficulties and dyslexic-mainstream groups for this item ($p>.05$). For the *remaining at the fringe of a group* item, the only significant difference was between the control group and the specific learning difficulties group ($p=.038$), with the control group significantly less likely to display this behaviour. This effect was mirrored in the *apathetic in learning situations* item, in which the control group were significantly less likely to display this behaviour than the specific learning difficulties group ($p=.023$). The control group were also significantly less likely to *daydream* than the dyslexic-mainstream ($p=.006$) group. There were no significant differences between the specific learning difficulties group and the dyslexic-mainstream group or the control group for this item ($p>.05$).

The Tukey HSD analyses also revealed that the control group were significantly less likely to *avoid work* than the specific learning difficulties group ($p=.008$). There were no significant differences between the control group and the dyslexic-mainstream (or the dyslexic-mainstream and specific learning difficulties group) for this item ($p>.05$). For the *blaming others for personal failure* item, both the dyslexic-mainstream ($p=.039$) and control groups ($p=.002$) were significantly less likely to display this

behaviour than the specific learning difficulties group. There was no significant difference between the dyslexic-mainstream and control groups for this item ($p > .05$). Finally, for the *reluctance to assume new responsibilities* item, the control group were significantly less likely to display this behaviour than the dyslexic-mainstream ($p = .004$) and specific learning difficulties groups ($p = .000$). There was no significant difference between the dyslexic-mainstream and specific learning difficulties groups for this item ($p > .05$).

7.6 Kelly Grid

For each grid, Pearson's correlation coefficients were calculated for each pair of rows. The value of each coefficient was entered in an intercorrelation matrix, which develops with two mirrored sets of results. The intercorrelation matrix now provides an indication of the degree of correlation between constructs for each participant. Tables 36-38 present the mean correlations for each group:

N=24	Good at Reading	Kind	Hardworking	Intelligent	Happy	Successful
Good at Reading	X	.38	.66	.71	.07	.55
Kind	X	X	.2	.27	.49	.28
Hardworking	X	X	X	.77	-.13	.61
Intelligent	X	X	X	X	.03	.60
Happy	X	X	X	X	X	.08
Successful	X	X	X	X	X	X

Table 36. Mean correlation matrices for paired constructs in the dyslexic-mainstream group.

N=26	Good at Reading	Kind	Hardworking	Intelligent	Happy	Successful
Good at Reading	X	.52	.67	.70	.22	.54
Kind	X	X	.51	.46	.45	.47
Hardworking	X	X	X	.68	.25	.62
Intelligent	X	X	X	X	.28	.65
Happy	X	X	X	X	X	.38
Successful	X	X	X	X	X	X

Table 37. Mean correlation matrices for paired constructs in the specific learning difficulties group.

N=23	Good at Reading	Kind	Hardworking	Intelligent	Happy	Successful
Good at Reading	X	.33	.48	.44	.15	.38
Kind	X	X	.30	.32	.26	.46
Hardworking	X	X	X	.44	.27	.43
Intelligent	X	X	X	X	.32	.44
Happy	X	X	X	X	X	.25
Successful	X	X	X	X	X	X

Table 38. Mean correlation matrices for paired constructs in the control group.

A One-Way ANOVA was performed to investigate differences between degree of correlation of paired constructs across the 3 groups. The analysis revealed significant main effects of the constructs “good at reading” and “intelligent” ($F(2, 72) = 4.189, p=.019$), “kind” and “hardworking” ($F(2, 72) = 3.715, p=.029$), and “hardworking” and “intelligent” ($F(2, 72) = 5.295, p=.007$).

A post-hoc Tukey HSD analysis revealed that for “good at reading” and “intelligent”, both the dyslexic-mainstream ($p=.033$) and specific learning difficulties ($p=.041$) groups displayed a significantly higher positive correlation than the control group.

Further analysis revealed that for “kind” and “hardworking”, the specific learning difficulties group displayed a significantly higher positive correlation than the dyslexic-mainstream group ($p=.026$). Finally, the analysis revealed that for “hardworking” and “intelligent”, the dyslexic-mainstream group displayed a significantly higher positive correlation than the control group ($p=.007$).

8

General Discussion

In interpreting, discussing and considering the implications of the findings in this study, the current researcher has decided to adopt a systematic, logical approach. This approach first considers the findings in terms of reliability, validity and relevance. This was considered as the most logical first port of call, simply because if the research findings are deemed not to be reliable, valid, or relevant, there is little point in continuing with a discussion of their implications! The discussion then turns to the context of the theories and research from which the study was sculpted. Again, this is a logical step, since it is impossible to truly understand the implications of a set of findings without considering first their implications on the work and theories that have preceded them. Finally, the focus turns to the implications of the study for teaching and learning in relation to dyslexia (to be dealt with in following chapters).

8.1 Reliability, Validity and Relevance

In considering the integrity of the study, it is appropriate to begin by looking at the sample itself, since its make-up affects all three of the factors being scrutinised. For instance, can the sample be considered representative of the general dyslexic population? In terms of the proportionality, it may have been appropriate to investigate a stratified sample (Shaugnessy & Zechmeister, 1994) that more closely approximates to the dichotomy between specific learning difficulties unit and mainstream provision in the general population. However, in the interests of the causal comparative nature of much of the research, and in the interests of robust statistical analysis, the current researcher sought out two samples which were roughly equal in size. The total sample size of 63 (not including control subjects) is considered by the current researcher to be large enough to be considered representative, especially in consideration of the characteristics that permeate throughout (see Table 39):

Characteristic	Relation to General Population/Representativeness
All participants either stated for dyslexia, or note in lieu of statement, or awaiting statutory assessment;	Ensures participants are valid members of the target population;
Male-Female ratio of 28:2 (see Appendix 7);	Closely approximates M:F ratio of general population (BDA, 1998);
Age range of 8-15;	Provides a reasonable cross-section of stated dyslexics (very few undergo assessment after the age of 15);
28 in mainstream provision, 35 in <i>specific learning difficulties units</i> , across 15 schools and 3 boroughs;	Increased representativeness, reduced chances of effects due to variables such as school or borough policy;

Table 39. Characteristics of the research sample and their relation to the general dyslexic population.

In acquiring participants for the study, the current researcher also included the criterion that the pupils had “little or no other difficulty, e.g. Asperger’s syndrome” (see 6.4.2). Again, this may have affected the validity and relevance of the research, since the general dyslexic population contains several subsets of children who encounter numerous difficulties. Indeed, our conception of dyslexia as part of a grid of overlapping difficulties (BDA, 1998; see 1.1) demands that there will be a diverse range of difficulties. However, since the current researcher was concerned primarily with the effects on self-concept and self-esteem that the dyslexic symptoms produced, it was deemed that including those children who also suffer from such difficulties as Asperger’s syndrome would affect the validity of the findings.

The research must also be assessed in terms of the approach that has been taken in conducting it. The instruments used have been shown in the past to be both reliable and valid (see Chapter 6), increasingly so when they are considered as a whole, incorporating both quantitative and qualitative techniques. The largely causal comparative design, although occasionally problematic (see 6.4.2), was considered

the most appropriate and productive way of answering the research question. The relevance of the study as a whole is open to interpretation, but it is the belief of the current researcher that the rationale behind the research (see 3.6.3-3.8) meant that it was certainly a journey worth taking, and now, continuing.

8.2 Interpreting the Interview Data: ‘Living with Dyslexia’ and Beyond

The primary source of inspiration for the current study, including its main research instrument, was Riddick’s (1996) book, *Living with Dyslexia*. It seems apt, then, that Riddick’s work will be considered once more as the findings of this study are discussed (although this will not be the only source used). However, the following section will also consider important elements of the research aims, specifically that which is concerned with looking at differences between children in specific learning difficulties unit provision and those in the mainstream. What the current researcher hopes to have produced is a synthesis of interpretative elements.

8.2.1 Conceptions of Dyslexia

The initial questions pertaining to conceptions of dyslexia were unique to this study, but provided an important basis for the researcher to probe participants’ knowledge about the difficulties they faced. An important difference between the specific learning difficulties and dyslexic-mainstream groups was the way in which they defined dyslexia. A far greater number of participants in the specific learning difficulties gave *specific functional* explanations. This has been interpreted by the current researcher as signifying a greater understanding of the disorder in the specific learning difficulties group. Whether this was because of parental or teacher influence, or the child’s own proclivities, is open to debate, but it is most likely the product of a combination of all three. Parents of children with dyslexia in specific learning difficulties units are usually more involved in and knowledgeable about dyslexia than their mainstream counterparts. Indeed, as seen in Section 1.6, the government actively consider the wishes of the parents in deciding upon placement (DFEE, 2000). Further, teachers in specific learning difficulties units have normally had specific training in teaching and learning with dyslexia, and as such would be more able to give ‘expert’ information and advice to their pupils. This is reflected in the responses

to a later question, which asked the participants who told them about dyslexia and what it meant – the specific learning difficulties group were more likely to have been informed by a parent or teacher, and had been given more specific explanations. What all this means in terms of the research question is that some of the children in the dyslexic-mainstream group are at a disadvantage – if they do not fully understand their difficulties, it is more likely to affect their self-esteem. This is in line with the work of Rosenthal (1973), who found that self-esteem was lower in children with dyslexia who (along with their families) had a poor understanding of the disorder than those who understood it well (see 3.6.3).

The difficulties faced by the children in the two groups were roughly comparable – primary difficulties were reading, spelling and writing. Secondary difficulties included maths, English and cognitive difficulties (such as with memory). Although this information had little to offer in terms of effects on self-concept, it was useful in providing a background picture, and in terms of ensuring that the difficulties faced by the two groups were similar. This adds to the validity of the research design, since participants are quite closely ‘matched’. It is worth noting at this stage, however, that only one of the 63 participants cited ‘bullying’ as a difficulty experienced as a result of dyslexia (Child EE). As we shall see when peer relations are considered, this is not the case!

The initial responses of participants to finding out that they were dyslexic provides an interesting focus for discussion in the context of Riddick’s (1996) original work. Riddick (1996) reported general expressions of relief, such as:

“Well, I was relieved in a way. I wasn’t upset at all”

and

“I quite like it. I used to wonder why I couldn’t keep up” (Riddick, 1996, p.84)

In the current research, this was not the case. Although the majority of the specific learning difficulties group claim to have expressed indifference, many in the dyslexic-mainstream group had been upset or angry, and even ‘left out’ (Child E) and ‘stupid

and thick' (Child M). This disparity is most likely to have occurred because Riddick's (1996) sample was drawn from a specialist unit. For the reasons outlined above, they may have been better informed about what dyslexia means, and provided with greater support. Hence, they expressed feelings of relief as opposed to being angry or upset. This accords with the fact that it was the dyslexic-mainstream sample, more so than the specific learning difficulties sample, who expressed negative emotions in the current study. The 'upset/angry' responses of many of the participants also provides support for the conception of dyslexia as a stigmatising label. As seen in Section 2.5.4, a 'stigma' (Goffman, 1959, 1963) is implemented by society on a person who displays attributes that are deemed abnormal or unworthy. In the current research, responses such as 'I felt stupid and thick' (Child M) reveal that children may impose the stigma on themselves because of their own prejudicial perceptions of the disorder. Such perceptions are, however, demonstrably different from child to child, hence the appearance of some indifferent and relieved responses.

A measure of the effect of having dyslexia on a child's self-concept and self-esteem is surely the amount of time and/or importance they attribute to it. In both the dyslexic-mainstream and specific learning difficulties samples, just under half of the participants stated that they regularly dreamed and/or daydreamed about not having dyslexia. This indicates that not only is dyslexia a negative influence on their lives, but also that it is an important one. As seen in section 2.5, as early as James (1890, 1892) and as recently as Harter (1993), theorists have argued that it is the *perceived importance* of abilities and achievement which are crucial in determining the effect on the self. However, as discussed in Section 2.5, the role of culture in determining perceived importance is crucial. With reference to dyslexia, the 'sink or swim' approach to developing skills (Johnston & Winograd, 1985) and our society's preoccupation with academic achievement (Gurney, 1988) are likely to be influential in hammering home the 'You must achieve at school' message that can be so damaging to learners who are dyslexic. This notion is supported by extracts from parental interviews by Riddick (1996):

“It was her self-esteem that really suffered [as a result of being dyslexic]”

and

“Because he couldn’t read and write his self-esteem was dead low...” (p.105)

8.2.2 General Self-Concept and Self-Esteem

In the case of the current research, dyslexia was a consistent, intrusive theme for participants, even in responses to questions unrelated to the disorder. An excellent example of this notion is seen in participants’ responses to requests to give their favourite and least favourite features. In both groups (particularly the *dyslexic-mainstream sample*), *favourite features centred around physical attributes or abilities*, such as ‘I’m small’ (Child D) or ‘Fast runner’ (Child DD1). However, least favourite features were almost always related to problems caused by their dyslexia – examples include ‘That I can’t read or write fast’ (Child BB), ‘Writing’ (Child L), and even simply ‘Dyslexia’ (Child KK). This was mirrored almost exactly in participants’ responses to requests to give one good and one bad word to describe themselves. These responses are in direct contradiction to what is considered the norm in self-esteem research with children. As Mruk (1999) states, physical/physical attributes are the most frequently negatively cited features in relation to self-esteem levels. Not so children with dyslexia!

Participants were also asked in which situations they felt most and least confident. This produced an apparent paradox, with school-based situations being most popularly cited as areas of both high and low confidence, in both groups. However, close inspection revealed that high confidence in school was only engendered in situations where dyslexia was not an issue, e.g. ‘I’m good at maths and IT’ (Child ZZ). In situations of low confidence, dyslexia was always an issue, either because it encouraged feelings of failure, such as ‘I couldn’t keep up’ (Child Y), or exclusion, such as ‘[I couldn’t] do some things that everyone else can’ (Child QQ). This theme of exclusion was something that began to recur in later questions, and, as will be discussed later, is important when we begin to consider the notion of inclusion in education (see 8.2.5). In terms of differences between the two groups, it was

interesting to note that as many participants in the specific learning difficulties group cited being with friends as boosting confidence as being at school (not so in the dyslexic-mainstream group). One possible explanation for this relates to the growing feelings of camaraderie that are a consequence of attending a unit where everyone has similar difficulties. As Child JJ1 states, 'I don't feel different in the unit'.

Withdrawn behaviour and a lack of social confidence have been identified by many researchers as manifestations of low self-esteem (Lawrence, 1996; Mruk, 1999; Collins, 2000). One of the ways in which this was measured in the current research was by asking participants if they found it difficult to talk in front of other people. In both groups, the majority did not like talking in front of others. Reasons given were very similar, and centred around fear of failure and embarrassment, but the unwillingness to speak, along with other difficulties, may be interpreted by teachers as laziness. As we shall see later, this misinterpretation of dyslexia-related difficulties was a major source of concern for participants (see 8.2.4).

8.2.3 Peer Relations

Half of the participants in the dyslexic-mainstream sample and the majority of participants in the specific learning difficulties sample stated that other children noticed the difficulties that they had. The reason for this disparity is almost undoubtedly because the purpose of the specific learning difficulties units are known to all children in the school. Consequently, more children are likely to 'notice' the problems of those who attend the units. Interestingly, around 50% of participants from both samples had been repeatedly bullied or teased specifically about difficulties with their work related to dyslexia. This is exactly the same figure that Riddick (1996) found in her sample. Likewise, Edwards (1994) reported that all of the participants in her study had experienced bullying (although there were only 8), as had 55% of a sample of children with mild learning difficulties (which included reference to dyslexia) (Whitney et al, 1994). This makes for worrying reading, especially when we compare it with research statistics for teasing and bullying in the UK (Sharp & Smith, 1991), which suggests that in the general school population, only anywhere between 10 (in secondary schools) and 27 per cent (in primary schools) of children are bullied. More recent research (Glover et al, 2000) has suggested that

only around 7% of pupils suffer repeated bullying. Such a dichotomy is in line with the commonly held notion that children with special needs on any level are more at-risk for bullying than 'normal' children (Riddick, 1996), and is more evidence of the stigmatisation that occurs when children are perceived as academically inferior. Further, this evidence also contributes to the notion that peers, as significant others, are able to reflect an image of the child which is incorporated into the self-concept (Cooley, 1902; Mead, 1934). Children with dyslexia who are told they are inferior ('Ha! You're thick!' (Child LL)) will begin to believe that they are ('I felt stupid and thick' (Child M)). Unsurprisingly, around half of the participants in both groups said that they felt excluded by others because of their dyslexia. This issue will be discussed in relation to 'inclusion' in section 8.2.5.

The issue about bullying and teasing is further compounded by the fact that in both groups, the largest proportion of participants had made the decision not to try to explain their difficulties to other children. The most obvious possible causal factor for this is fear of ridicule, confirmed by the fact that of the minority who had explained their difficulties to other children had experienced further bullying and teasing as a result of their disclosures, e.g. 'They tell me not to make excuses' (Child CC). Such incidences undoubtedly add to the child with dyslexia's feelings of inadequacy and isolation.

Maines and Robinson (1988) have reported that a wish to be somebody else is often indicative of the child with low self-esteem. In the current research, around half of both groups indicated a wish to 'swap places with someone else'. When this was probed, the actual 'person' was often a figure who did not experience dyslexia-related difficulty, such as 'Someone who's undyslexic [sic]' (Child SS), and 'A popular boy' (Child UU). Again, this not only provides evidence of low levels of self-esteem, but also points to the perceived importance of literacy and academic achievement, since yet again, dyslexia is raised as an issue.

8.2.4 Teacher-Pupil Relations

The evidence for peers as significant others contributing to low self-concept and self-esteem through teasing, bullying and social exclusion was apparent in the previous

section. However, what contribution is being made by teachers as significant others? As discussed in section 3.1, the role of teachers as significant others is more important now than ever, and research has demonstrated relationships between positive and negative statements and self-esteem (Burnett & McCrindle, 1999). It is disheartening, then, to discover that, whilst many participants (especially in the specific learning difficulties group) stated that they now received support, care and attention from their teacher, almost half related stories (often prior to official diagnosis) about persecution from teachers who refused to believe that dyslexia was at the heart of the problem. It is the opinion of the current researcher that this common tendency to deny dyslexia is evidence of the still-present stereotype that 'dyslexia' is merely an excuse for failing middle-class children. The current researcher's view is supported in the work of Dewhurst (1995, in Riddick, 1996):

“TEACHER: Well...I mean, it's one of those things that has been conjured up by 'pushy parents' for their thick or lazy children; quite often both” (p.94)

and

“TEACHER: Yeah, it's a gut feeling you know, when you have been teaching as long as I have you get to know which kids have problems and which kids are pulling the wool over your eyes” (p.95)

Why might such stereotypes still exist in an age when dyslexia is an established condition (Miles and Miles, 1999)? The work of Atkin et al. (1988) and Riddick (1995) has gone some way to providing an explanation. Atkin et al. (1988) carried out extensive studies on parent-teacher relations and teacher stereotypes and found that, as a consequence of the 'professional perspective' with which home-school relations are viewed by teachers, they are often very reluctant to accept the things that parents tell them. Hence, when parents suggest that their child may have dyslexia, they are seen as 'too pushy' (Riddick, 1996). This notion is perpetuated by what Riddick (1995) calls the 'folklore' of dyslexia, part of which is the middle-class syndrome myth. The bad news in terms of correction is that stereotypes such as these are notoriously difficult to change (Stephan, 1985). In the case of dyslexia, the difficulty is that “those educationalists who are most hostile to or critical of the

concept of dyslexia are the least likely to read about or take further training in a condition that they don't think exists" (Riddick, 1996, p.95).

In terms of the influence of teachers of the current sample as significant others, it is difficult to come to a firm conclusion. Although, as Cooley (1902, p.175) states, "in the presence of one whom we feel to be of importance, there is a tendency to enter into and adopt... his judgement of ourself", it must be remembered that for significant others to exert a lasting effect on the self of an individual, the messages received must be consistent and stable (Burns, 1982). In the case of the current research, there was a clear dichotomy between teachers who clearly understood the child's problems and wanted to help (e.g. 'When I need help they go over things' (Child D)) and those who were ignorant of the condition and were negative to towards him/her (e.g. 'I've got a problem and they say, 'put your hand down'' (Child G)). This was especially true in the case of dyslexic-mainstream participants in secondary education, where the number of different teachers with whom the children came into contact was greatly increased, thus increasing the chance of negative feedback:

'R.E. teacher [called me lazy], because I didn't write neat enough' (Child L)

'Sometimes in science I'm quite slow and he says, 'hurry up!'' (Child M)

What are children with dyslexia to make of the mixed messages which they receive from different teachers? It is somewhat difficult to try and proffer an objective explanation at this point, but given the fact that as many as 50% of the children in the current sample reported that their peers (also significant others) regularly teased them, along with the evidence provided by the other instruments used in the research (to be discussed in later sections), it is fair to estimate that these children are much more likely to incorporate the negative messages into their self-concepts. Children, as Kelly (1955) so eloquently argues, act as scientists in interpreting the world around them. They can only make sense of what they see and hear, and if most of the messages which they receive are negative, then this will be reflected in the image they will create for themselves.

8.2.5 Academic Self

A measure of the influence of the message received from significant others (see above) was revealed when participants were asked if they felt lazy, stupid or messy because of their difficulties. Although the majority of the specific learning difficulties sample said that they did not, more than one third of the dyslexic-mainstream sample indicated that they felt they were either stupid (N=5), lazy (N=3) or messy (N=1). This was compounded by the fact that between a quarter (dyslexic-mainstream group) and one-third (specific learning difficulties group) of participants felt that they were less intelligent than their peers. The slight difference in perceived comparative intelligence levels between the dyslexic-mainstream and specific learning difficulties sample is most likely to be an artefact of the educational context of the two groups. Although the specific learning difficulties group are all 'in the same boat', and receive lessons from specially trained teachers, they are always aware that they are in a unit for children with learning difficulties.

What implications do these perceived comparative intelligence levels have for the relationship between self-concept and academic achievement? As we saw in 3.2, it is largely agreed that the relationship between the two is bi-directional, although high self-concept alone is not enough to produce high academic achievement (Beane & Lipka, 1986; Kurtze-Costes & Schneider, 1994). The reverse situation, however, of low self-concept contributing to poor academic achievement, is quite possible. Several authors (Kurtz-Costes & Schneider, 1994; Belgrave et al. 1992; Skaalvik, 1990) have found relationships amongst self-concept/esteem, academic achievement, and attributional style. Let us imagine a scenario in which a dyslexic child is experiencing difficulty with his work. The feedback he receives from teachers and many peers is consistently negative. The child begins to incorporate this into his self-concept. If the child is over the age of 7, his self-esteem is much more likely to suffer as a result, since his self-referencing is now a *comparative* process (Gurney, 1988). The combination of lowered self-concept, self-esteem, and experiences of failure produce in the child a passive state, akin to *learned helplessness*, the "maladaptive passivity that results from believing that important, often negative events, are beyond a person's control" (McKean, 1994, p.1). Indeed, this hypothetical notion has received some empirical backing, as Butowsky and Willows (1980) state: "The

parallels between... learned helplessness and... children with reading difficulties are striking” (p.410-411). The child’s passive state, coupled with a maladaptive attributional style (to be discussed in Section 8.4), result in his failure on tests that are at or below his natural ability level. The pervasive, continuous and systematic manner in which children are tested and assessed at school means that a state of helplessness would not take long to implement. As one might expect, a cyclic process is formed, wherein the experiences of failure feed the helpless state, and vice versa, contributing to lowered academic achievement.

The current researcher was particularly interested the effects which dyslexia has on a child’s perceptions of school (and, in turn, his/her academic self). In this vein, the participants were asked if they thought that having dyslexia changed whether they liked or disliked certain subjects, the presumption being that those subjects in which their dyslexic difficulties were revealed would be the ones that were disliked. In the dyslexic-mainstream sample, just over half said that it did not. In the specific learning difficulties sample, this increased to two-thirds of the participants. However, when one examines the responses to another question, about favourite and least favourite subjects at school, it becomes clear that dyslexia *is* an issue, and *is* a factor in participants’ enjoyment of school subjects. Thus, when participants were asked *why* they did not like certain subjects, they almost always gave a reason related to dyslexia, such as ‘French – I’ve got to learn to spell a new language’ (Child Y), and ‘You have to write two pages’ (Child EE). Conversely, favourite subjects were backed up with reasoning related to an escape from dyslexic difficulties, such as ‘Technology – you don’t write as much’ (Child KK1), and ‘Art – you only have to write a tiny bit’ (Child G). The current researcher’s interpretation of these responses is supported by the responses of participants who felt that dyslexia *did* change their enjoyment of school, such as Child U, who said, ‘It’s harder to do some subjects’, and Child UU, who said, ‘You dislike reading’. Further, when one examines responses from both groups related to areas of their schoolwork which they would like to change, between 60 and 70% are directly related to dyslexia (i.e., reading, spelling), and the rest are related to secondary difficulties caused by dyslexia (i.e. maths skills).

What then, are we to make of those participants who denied that dyslexia changed their enjoyment of school, and yet gave responses to other questions that indicated

just the opposite? One possible reason for this apparent contradiction is that because most of these children have experienced difficulty throughout their entire school lives, they are unable to conceptualise school in any other way. However, given that a significant proportion of both groups regularly daydream/dream about *not* having dyslexia, this seems unlikely. A more reasonable assumption is that the responses seen are indicative of what has been variously called ‘defensive’ self-esteem (Mruk, 1999), ‘discrepant’ self-esteem (Coopersmith, 1967), and ‘pseudo’ self-esteem (Branden, 1969). What the authors describe is an alternative to the type of ‘low’ self-esteem one generally encounters in people with difficulties. In the typical case, the low self-esteem manifests as almost the complete opposite of itself in behavioural terms, including bragging (overcompensating), putting others down (displacing), throwing themselves into their work (sublimating), and/or becoming aggressive (discharging). All these behavioural displays are symptomatic of a common element of *denial* on the individual’s part. Indeed, this notion has some support in the case of dyslexia, since it has been frequently linked with behavioural and emotional outbursts, often resulting from the frustration of failure and isolation in school (Riddick, 1996; Hinshaw, 1992). In the current research, we are presented with a subtle example of the denial taking place on the surface.

A common theme throughout the interviews was the feeling of isolation that the participants felt, especially in the dyslexic-mainstream sample. Consider the responses below:

‘I felt left out’ (Child E)

‘I feel like I’m one person in the whole class’ (Child E)

‘[I] thought I was weird, I didn’t fit in...’ (Child FF1)

‘Odd one out’ (Child XX, Child ZZ)

‘I just feel invisible’ (Child II)

Despite these responses (which were to a variety of different questions), most participants said that dyslexia did not change the way in which they saw themselves at school (perhaps another example of defensive self-esteem). Of the approximate one-third who said that it did, the feelings of isolation and exclusion were exacerbated, with responses such as 'I feel different... I'm the only one' (Child N) and 'It makes me feel different' (Child YY). Taken as a whole, these responses are of particular interest in the context of the government policy of inclusion for children with special educational needs. The recent Green Paper (DFEE, 1997) targeted inclusion as its priority, stating that, "by inclusion, we mean not only that pupils with SEN should... receive their education in a mainstream school, but also that they should join in fully with their peers in the curriculum and life of the school" (p.44). In a sample of 63 children, 50% of whom are regularly teased or bullied, and the majority of whom express feelings of isolation and exclusion, the so-called inclusion 'initiatives' do not seem to be working. Although children with dyslexia may be *physically* 'included' in the classroom, it is clear that they do not perceive themselves as included at academic and social levels. The implications of these findings are further discussed in the next two chapters.

The inclusion debate is also relevant to our previous discussions about integration and placement (3.6.1). Indeed, one of the main aims of the research has been to *investigate whether placement has any discernible effect on the self-concept and self-esteem of children with dyslexia*. From the interview results, it has been difficult to *ascertain the exact magnitude of any discernible differences*. However, there is a perfectly rational explanation for this, since both groups are experiencing different factors that could contribute to their low self-concepts and/or esteem. Firstly, as seen in 3.6.1, authors such as Leonardi (1993) and Wade and Moore (1992) have reported that children attending units have lowered levels of self-esteem, mainly because they feel isolated from their peers. However, it is clear from other research (Towne & Schurr, 1992; Crozier et al, 1999) that children integrated fully into mainstream classes *also* exhibit signs of low self-esteem, usually because of the feelings of academic inferiority and they experience when they compare themselves to their classmates, and, indeed, when their classmates reject and tease them. This evidence largely supports what has been found so far in the current research. In terms of

'inclusion', it is extremely worrying, as it suggests that we are letting down children with dyslexia wherever they may be placed.

8.3 Self-Description Questionnaire

Marsh's (1990) questionnaires can be interpreted in three different ways. The first of these is statistical analysis using raw data. Secondly, one can produce a T-score profile (see Figure 19 for an example) which provides a graphical representation of questionnaire results. Finally, one can calculate percentile scores from a normative sample in Marsh (1990). Each of these will be addressed in the context in which they provide the most useful information. First, however, it is important to clarify the role of the SDQ in the research.

The SDQ provides the first example of the quantitative, causal comparative nature of the research. In terms of aims and objectives, it is therefore a useful tool in our investigation of differences between children with dyslexia in mainstream environments, and those in specific learning difficulties units. The subdivision of the questionnaire into general *and* specific areas of the self-concept during analysis means that the SDQ is also valuable in terms of quantifying the exact nature of the *effect which dyslexia has on the self-concept (i.e. global or specific)*.

The ANOVA found significant main effects for self-concept of physical abilities, physical appearance, reading, general school, total non-academic, total academic, and total self scales. In terms of self-concept theory, this supports the view that the self is multidimensional (James, 1890, 1892; Mead, 1934; Goffman, 1959, 1963). If there were only a global self-concept, then the questionnaire would not have been able to pick up such intricate differences. Moreover, the different dimensions of the self-concept would also be much less erratic if all that were being measured was a global concept of self. In terms of the current research, the post-hoc analyses revealed that for the main effects found, the significant differences were almost always between the control group and the dyslexic-mainstream group, and the specific learning difficulties group and the dyslexic-mainstream group. In each case, the dyslexic-mainstream group had the lowest scores. This was true for self-concept of physical abilities, appearance, total non-academic, and the total self scales. None of the scales

revealed a significant difference between the specific learning difficulties group and the control group. Although no significant group differences were found for self-concept of reading, reference to the mean T-score profiles (Figure 19) and the mean percentile scores (Table 30) indicate that this scale follows the same pattern. This information reveals two important facts. Firstly, there is no difference in self-concept (using Marsh's SDQ-1 at least) between children in specific learning difficulties units and 'normal' children, under the age of 13. Secondly, it would appear that for children with dyslexia in mainstream education, difficulties experienced produce both global (i.e. total self) and specific (i.e. reading, general school) effects on the self-concept.

How might we assimilate the information from the SDQ-1 into what has already been found in the interview data? The evidence of differences between the specific learning difficulties group and the dyslexic-mainstream group does not sit well with the interview data, since the two groups gave remarkably similar responses to most questions. However, as discussed in Section 4.4.4, modern educational research must employ triangulation of methods in order to provide a more objective (and less limited) viewpoint, and such apparent inconsistencies merely add to the richness of our discussion. In addition, one must remember that each of the methods used addresses the self from a different angle, and, in many cases, addresses a different aspect of the self. Therefore, rather than their affecting the validity of the research, the current researcher believes that the SDQ-1 results provide a valid contribution to the research discussion. Indeed, the SDQ-1 results may point to the fact that the subtle differences in self-concept apparent between the two groups are not amenable to subjective, qualitative analysis.

The SDQ-2 results, in contrast to the SDQ-1, revealed little in the way of main effects. Indeed, the only significant difference was between the dyslexic-mainstream group and the control group for the self-concept of parental relations. In interpreting these results, it is possible to take one of two approaches. From a statistical point of view, it could be said that the small group size (see Table 31) was responsible for the lack of significant results. For a statistical procedure such as ANOVA, it is crucial to include a large, representative sample. In this case, only 8-10 participants made up each group, and this may have provided a significant contribution to the results.

However, upon examination of both the mean T-score profile (Figure 20) and the mean percentile scores (Table 32), it becomes clear that there is no pattern whatsoever, and even with the addition of extra participants, it seems unlikely that one would develop.

From a theoretical point of view, it is possible to take the results at face value and conclude that for children aged 13 and over, there are no real differences in self-concept between children with dyslexia (in both mainstream and specific learning difficulties units) and 'normal' children. This interpretation is an attractive one, as it dovetails perfectly with Gurney's (1988) model of self development. As seen in Section 2.3, Gurney (1988) proposed that, before the age of 13, children are extremely sensitive to incoming information (supporting Kelly's (1955) notion of 'little scientists'), and develop comparative abilities in self-referential behaviour and statements. After 13, children focus on emotional control and personality characteristics, and develop the ability to abstract, constructing hypotheses about reality and causality, as opposed to merely relying on concrete elements. This developmental change may be an important causal factor in the SDQ-2 results, and indeed, is supported by a certain intuitive logic. Under the age of 13, children interpret their self-image according to what they see and hear, and therefore a disorder such as dyslexia is likely to affect the self-concept. A child performs consistently badly on school reading tests, so he believes he is a bad reader, particularly so since much of his self-referencing is performed on a comparative level. He is bullied and teased at school, and so his self-related concept of school is lowered. After the age of 13, the child is able to perform abstract reasoning, and is able to construct hypotheses about reality that are much more reasonable and appropriate. Therefore, dyslexia may come to be seen as a difference rather than a disability. However, this change in reasoning does not necessarily entail that the SDQ-1 results are meaningless (as some might argue, given that it would appear that the deficits seen in the SDQ-1 results are erased as the child grows older). Instead, the current researcher points the reader to the work of Edwards (1994), whose case studies of eight dyslexic students show that although children may feel better about their dyslexia as they grow older, they still bear the 'scars' even as adults.

Although much of the above discussion has been related to the ANOVA results, it is also important to recognise the contribution of the other forms of analysis. The T-score profiles (Figures 19 and 20) provide an accurate graphical representation of the results, and provide further support to the current researcher's interpretations. This is particularly true for the SDQ-1 (Figure 19), in which the difference between the dyslexic-mainstream and the other two groups is quite outstanding. However, the percentile scores also add weight to the discussion, on two levels. By providing another 'control group' comparison, the percentiles allow us to confirm or deny what the statistical analysis has told us. In both cases, the pattern (or absence of) is identical to that which the statistical analysis revealed. Thus, for the total self scale for SDQ-1, the percentile score of the dyslexic-mainstream group is markedly lower than for the other two groups (45 and 37, compared with 14). For the parental relations scale (in which no significant difference was found), the scores are notable by their similarity. On a methodological level, the percentile scores add to the validity of the control participants' scores as an accurate representation of the general population, since for most of the dimensions, the mean score falls on or around the 50th percentile.

Given the results of the two SDQ instruments, are we any closer to answering our research questions? In terms of the domain specificity of the self-concept deficit, the SDQ-1 has provided an intriguing set of results, with significant results in both global and specific domains. Whilst seemingly paradoxical, this is perfectly in line with our initial definition of the self-concept and its framework (see 2.1-2.2), and the mechanics of the SDQ itself. In short, the self-concept is multidimensional and hierarchical, with many specific domains combining to make up a larger, 'parent' domain. For example, areas such as self-concept of reading and maths combine to form the 'parent' domain of academic self-concept. At one level, these more global domains combine to form a general sense of self. This framework is reflected perfectly in the way the SDQ-1 is constructed (see Marsh, 1990). Therefore, if a specific domain displays a deficit, one could logically expect that this would be evident not only in the measurement of the domain itself, but also in its parent domain, and even in the general self domain. This 'knock-on' effect is precisely what was found in the current research.

8.4 Attribution Questionnaire

The attribution questionnaire represented a departure from the other quantitative analysis procedures in that the children with dyslexia were treated as one group instead of two. There are two reasons for this. Firstly, initial examination of the means indicated no real difference between the attributions made by the children with dyslexia in mainstream education and those in the specific learning difficulties units. Secondly, for a complex statistical procedure such as Multivariate Analysis of Variance (MANOVA), large group sizes are crucial to ensure statistical robustness. Thus, the dyslexic participants were classed as one in order to increase group size.

What place does the attribution questionnaire have in the current research? As seen in 8.2.5 and 3.2, attributional style has close links to both self-concept and self-esteem. The questionnaire results therefore allow us to expand upon the theoretical discussions that other instruments provoked. For instance, our example from 8.2.5 pointed to the links between low self-concept, learned helplessness and attributional style. The results of the attribution questionnaire tie in extremely well with this example. Successful dyslexic pupils were significantly more likely to attribute their outcome to teacher quality, an external factor. Thus, situations of success do not reinforce positive self-referential information, since dyslexic pupils do not equate success with internal factors (such as ability or effort). This externality is symptomatic of the learned helpless individual – whatever they do does not matter, because they have no control. Conversely, in situations of failure, control participants were significantly more likely to attribute their outcome to internal factors, namely interest in subject and effort. This mechanism of internalising failure may seem maladaptive at first, but is in fact quite healthy for the self-concept. When the control participants fail, their attributions are almost dismissive – “I’m not interested in that subject”, or “I didn’t try”. Lack of ability is never questioned. Even when failure is attributed to external factors (conditions at home), the participants’ self-concept and self-esteem are protected, since the situation is beyond their control. This external factor is unlikely to induce helplessness however, because it is *unstable* (conditions at home fluctuate between good and bad, dependent on situation).

The above interpretations have received some partial support from research that has already been carried out in the field of learned helplessness. Witowski and Stiensmeier-Pelster (1998) report that 'withdrawal of effort' attribution is an important mechanism in self-esteem protection theory, and reason that we are naturally inclined to attribute failure to factors that do not affect our self-image, particularly in public situations (such as school). That children with dyslexia appear to lack this defence mechanism is indicative not only of learned helplessness, but also that future situations of failure are likely to further damage the dyslexic child's self-concept and self-esteem. Interestingly, other research (Hiebert et al. 1984) has suggested that the attributions made by the dyslexic and control samples in the current research reflect directly those made by low and high achieving pupils respectively, since "[in situations of failure] they [high-achieving pupils] attribute their failures to a lack of effort... Low achieving children, on the other hand, attribute their successes to factors beyond their control" (Hiebert et al, 1984. p.1139). This adds to the validity of both the research findings and the learned helplessness hypothesis, since, like dyslexic pupils, low-achieving pupils frequently encounter failure.

8.5 Semantic Differential Scale

The semantic differential scale provided the first 'stand-alone' self-esteem measurement. The instrument is considered to measure self-esteem because it investigates the *discrepancy* between an individual's concept of himself (self-concept) and his ideal self. In this way, the semantic differential is as close to the definition of self-esteem provided in 2.1 as one might hope to get with a quantitative instrument. As discussed in 5.2.4, the original scale used by Richmond (1984) was adapted to focus on academic-related self-esteem.

The ANOVA performed on the semantic differential scale results mirrors those found in the SDQ-1. Firstly, as with the SDQ-1, several main effects were found, for self-esteem of reading ability, writing ability, spelling ability, intelligence, English ability, neatness, popularity, and importance. Secondly, as with the SDQ-1, the significant differences were mostly between the dyslexic-mainstream group and the control group, and the dyslexic-mainstream group and the specific learning difficulties group. This was true for the self-esteem of reading ability and writing ability. For other

scales, the differences found were between the dyslexic-mainstream group and one (but not both) of the other two groups. On only one scale (self-esteem related to ability in English) did the specific learning difficulties group show significantly lower levels of self-esteem than the control group. Importantly, the significance of items such as the popularity scale provide support for evidence of a) feelings of exclusion, and b) teasing and bullying which were found in the interview data. However, this support only applies to the dyslexic-mainstream group, since they displayed significantly lower levels of self-esteem for this item.

How does this information fit in with what has already been found? Firstly, the fact that the results between the semantic differential and the SDQ-1 were similar, but not exactly the same, supports the notion of self-concept and self-esteem as two related, yet distinct concepts. The fact that, again, the dyslexic-mainstream group tended to exhibit the lowest levels on the scale provides more evidence of the damaging effect of the mainstream school climate on the dyslexic child's self-esteem. Further, the fact that only one scale (English) revealed a significant difference between the control and specific learning difficulties groups provides evidence of the positive effect of the specific learning difficulties unit environment on the dyslexic child.

8.6 Self-Esteem Checklist

The results of the self-esteem checklist present something of an anomaly in terms of the direction of the research, but are intriguing nonetheless. Of the 10 main effects found by the ANOVA, 6 were related to significant group differences in which both the specific learning difficulties group and the dyslexic-mainstream group exhibited 'lower' (in terms of self-esteem) scores than the control group. Of the remaining 4 main effects, 3 were related to significant group differences in which the specific learning difficulties group alone exhibited lower scores than the control group. Whilst all these results support the notion that dyslexia has an effect on the self-esteem of children, it is in direct contradiction to the results of the other quantitative methods, where the specific learning difficulties group tended to exhibit scores that were the same as the control group.

What then, are we to make of these anomalous results? One possibility is to dismiss the Self-Esteem Checklist as lacking concurrent validity (see 4.4.3), since it does not produce results comparable with our other measures, whose validity is already known (see Chapter 6). However, this produces a problem, since it might be argued that the other instruments used in the current research are not equivalent measures. Indeed, as discussed in 8.3, the non-equivalence of the instruments adds to the complexity and richness of the results. If all the instruments measured *exactly* the same thing, what would the point be in using more than one? Further, the creator of the checklist, Denis Lawrence (1996), based his items on extensive experience in the field, as well as extracts from the literature on self-esteem. It is therefore assumed to have high content validity. The dichotomy between the Lawrence checklist and the other instruments is more likely to be attributable to the fact that the checklist measures *behavioural manifestations* of self-esteem (the others do not), and the fact that the checklist was completed by teachers rather than the children themselves.

If the Lawrence checklist is to be included in the discussion of the results of the current research, then we must be able to account for what was found. The current researcher believes that the reason why the specific learning difficulties unit group were generally rated as having the lowest self-esteem of the three groups is related to the training and perceptiveness of the teachers at the specific learning difficulties units. Teachers at the units, with their specialist training and smaller class sizes, are more able and likely to recognise behavioural manifestations of low self-esteem in their pupils, since they spend more time with their pupils and are more knowledgeable about self-esteem. Whether this explanation is satisfactory or not is open to debate, especially since there is at present a paucity of research related to this relationship.

8.7 Kelly Grid

When studying the tables of results (Tables 36-38) for the Kelly grid, any difference between the groups signifies discrepancy among the overall correlations for each construct. If one group displays a significantly higher correlation, this is interpreted as indicating a more analogous definition of two constructs in that group. Alternatively, if a group displays an overall negative correlation, then no similarity exists; conversely, the constructs are defined in almost contradictory terms.

Children with dyslexia (in both dyslexic-mainstream and specific learning difficulties groups) perceived a significantly stronger association between ability at reading and intelligence than did the control group. This suggests that children with dyslexia believe that only when one is good at reading can one be considered intelligent, and vice versa. Thus, given that children with dyslexia are generally poor readers, they are more likely to perceive themselves as unintelligent. This is a notion supported by the interview data, and, to an extent, the SDQ-1 and semantic differential data. What this association means in terms of the self-concept and self-esteem of children with dyslexia is that until their reading is corrected to an appropriate level with adequate multi-sensory teaching, they are always likely to perceive themselves as unintelligent, and their notion of self will suffer. This is supported to an extent by the fact that the dyslexic-mainstream group associated “hardworking” with “intelligent” significantly more than the control group did. As with ability at reading, children with dyslexia appear to believe that only hardworking people are intelligent, and vice versa. Given the fact that many of the children with dyslexia in the current research had been labelled lazy or stupid at an early age (see 8.2), it is unsurprising that they also tend to perceive themselves as of lower intelligence than their peers.

The final significant difference showed that children with dyslexia in the specific learning difficulties group associated “kind” with “hardworking” more so than the dyslexic-mainstream group. Taken in tandem with the responses of the specific learning difficulties group to questions about the unit, this association is a logical one. Children in the specific learning difficulties units undoubtedly recognise the hard work and training that their teachers endure to provide them with a better chance to fulfil their potential. Given that they stated that their unit teachers provided more attention, care and support than had their mainstream teachers, it is easy to see where this association between ‘hardworking’ and ‘kind’ might come from.

It must be noted that, although the results of the Kelly grid provide important information in the context of the current study, they by no means replicate what other researchers have found with regard to dyslexia. Thomson and Hartley (1980) found that children with dyslexia were more likely to associate happiness with ability in reading, and, contradictorily, a negative association between intelligence and

happiness. However, given that the Thomson and Hartley's investigation was carried out 20 years ago in an educational climate which was markedly different from the one in which we currently find ourselves, coupled with the fact that the current analysis distinguished between children with dyslexia in the mainstream and those in the specific learning difficulties units, the current researcher does not believe that the conflicting results call into question the reliability of either piece of research.

8.8 Synthesis of Results

Although the preceding discussion has made use of cross-referencing of results from different instruments, it is important to attempt a more complete synthesis before one can attempt to address educational implications. The use of multiple methods from different paradigms (constructivist and positivist, qualitative and quantitative) which address different aspects of self (self-concept, self-esteem, attributional style, personal constructs) has provided a rich tapestry of information. In terms of the research aims, the interview data, all of the instruments used have shown an effect of dyslexia on the self-concept and/or self-esteem of the dyslexic participants. Results from the quantitative instruments have indicated that both specific and global effects can be found, and that there are notable differences between children with dyslexia in mainstream education, and those in specific learning difficulties units.

The different instruments have complemented each other surprisingly well, and have served to validate or explain different aspects of the results. For instance, where the quantitative instruments indicated differences between the specific learning difficulties group and the dyslexic-mainstream group, the interview data provided the beginnings of an explanation. The environment in which the two groups receive their education is markedly different, and is evident particularly when the unit participants talk about the care and support they receive as part of their everyday education, a factor which is not evident in the dyslexic-mainstream group. Another example of this synthesis is seen in the interview data, where a consistent theme was a feeling of academic inferiority. The current researcher was able to use the attribution questionnaire and Kelly grid data to support his ideas as to the nature of these feelings. Finally, data from the semantic differential scale was used to support evidence of feelings of exclusion drawn from the interview data.

The relative ease with which the different instruments have been used to support and complement one another is evidence of the strength that triangulation brings to educational research. The current researcher believes that the similar results drawn out with the different instruments not only adds to the validity of the study, but also provides support for the conceptualisation in section 4.3 of the research as utilising an *eclectic* approach. It also supports the notion put forward by authors such as Reichardt and Rallis (1994) and Guba and Lincoln (1994), who argue that postpositivists and constructivists share more compatibility than incompatibility, and suggest the possibility of developing a new paradigm in the future which looks at everything as a matter of degree.

In the interests of clarity and ease of access, the results of the statistical analyses are presented in summary form below (Table 40):

Instrument	Findings
SDQ1 – Physical Abilities	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
SDQ1 – Physical Appearance	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
SDQ1 – Reading	No significant group differences found
SDQ1 – General School	Control > Dyslexic-mainstream
SDQ1 – Total Non-Academic	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
SDQ1 – Total Academic	Control > Dyslexic-mainstream
SDQ1 – Total Self	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
SDQ2 – Parental Relations	Dyslexic-mainstream > Control
Attribution - Effort	Control > Dyslexic
Attribution – Teacher Quality	Dyslexic > Control
Attribution – Interest in Subject	Control > Dyslexic
Attribution – Home Conditions	Control > Dyslexic
Semantic Differential - Reading	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
Semantic Differential – Spelling	Control > Dyslexic-mainstream
Semantic Differential – Writing	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
Semantic Differential – Intelligence	Control > Dyslexic-mainstream
Semantic Differential – English	Control > Dyslexic-mainstream, SpLD > Dyslexic-mainstream
Semantic Differential – Neatness	SpLD > Dyslexic-mainstream
Semantic Differential – Popularity	Control > Dyslexic-mainstream
Semantic Differential - Importance	Control > Dyslexic-mainstream
Lawrence – Boastful	Dyslexic-mainstream > SpLD, Control > SpLD
Lawrence – Timid	Control > Dyslexic-mainstream, Control > SpLD
Lawrence – Avoid Stress	Dyslexic-mainstream > SpLD, Control > SpLD
Lawrence – Seek Reassurance	Dyslexic-mainstream > SpLD, Control > SpLD
Lawrence – Remains on Fringe	Control > SpLD
Lawrence – Apathetic	Control > SpLD
Lawrence – Daydreaming	Control > Dyslexic-mainstream
Lawrence – Avoid Work	Control > SpLD
Lawrence – Blame Others	Control > SpLD, Dyslexic-mainstream > SpLD
Lawrence – Reluctance to Assume Responsibility	Control > SpLD, Control > Dyslexic-mainstream
Kelly – Good at Reading & Intelligent	Dyslexic-mainstream > Control, SpLD > Control
Kelly – Kind & Hardworking	SpLD > Dyslexic-mainstream
Kelly – Hardworking & Intelligent	Dyslexic-mainstream > Control

Note: The '>' symbol denotes that a statistically significant difference ($p < .05$) was found between the groups.

Table 40. Summary of the statistically significant results of the current research.

Implications Part 1: Intervention

In deciding upon the structure of the final sections of this thesis, the current researcher felt that it would be appropriate to split the implications of the research into two major sections: 'intervention' and 'prevention'. This was seen as the most logical approach, since there are clearly different issues to be discussed pertaining to strategies available to help children with dyslexia now (intervention), and what can be changed in the education system to safeguard against similar children experiencing such difficulties in the future (prevention). A final, conclusion section will summarise the important themes drawn out in the research.

9.1 Enhancing Self-Concept and Self-Esteem in Children with Dyslexia

One of the more consistent themes drawn out in the analysis of the research data was the clear negative effect that having dyslexia had on the self-concept and self-esteem of the participants. Although the experiences of the children in the two groups were different in many respects, there were commonalities, highlighted in particular through the interview data.

In examining possible strategies to increase self-concept and self-esteem in children with dyslexia, we are faced with two important quandaries. Firstly, there is the sheer number of possible programmes associated with 'boosting' self-concept and/or self-esteem (Mruk, 1999). Which of the hundreds available would prove most beneficial? Secondly, there is a problem associated with causality: although self-esteem and self-concept intervention is a major theme of the current research, other implications, pertaining to strategies to decrease bullying, promote inclusion, and train attributional style, are also likely to affect self-concept and/or self-esteem. How then, are we to identify causal factors in self-esteem enhancement when there are so many intervening variables?

The solution to the first quandary is found through thorough investigation of the causal factors associated with the manifestation of low self-concept and self-esteem in our sample. The next stage is to ally these factors to an appropriate intervention programme whose theoretical origins and practical usage are amenable to use in the current educational context. However, such a process may not be as simple as it appears, since the causal factors at work may not mesh with the mechanics of any single form of intervention. The current researcher suggests, therefore, that several forms of intervention may be appropriate, each of which can be associated with one or more of the causal factors identified in the two preceding chapters.

9.2 The Role of the Teacher

It was clear from the interview data that the influence of teachers as significant others was an important factor in the low self-esteem exhibited by many of the participants. The implications of the teachers' behaviour and comments for teacher training and early identification of dyslexia will be discussed in the next chapter. This section will examine the ways in which teachers can use their influence to enhance self-esteem of the children with dyslexia whom they teach.

Lawrence (1996) suggests that in order to have a positive effect on the self-esteem of their pupils, teachers need to establish a warm relationship with them, and possess (or develop) desirable counselling qualities. In particular, the reader is pointed toward the work of Carl Rogers (1951), who suggested that effective counsellors must exhibit three essential qualities: acceptance, genuineness and empathy. *Acceptance* is defined as being non-judgemental of the child and accepting his personality as it is, and typically communicated to the child in conversation, gesture and posture. In terms of our dyslexic sample, acceptance is an important quality for the teacher, especially so given the level of isolation that participants exhibited. However, Lawrence (1996) warns against 'faked' acceptance, stating that, "Children spot those who are not genuine" (p.24). Related to this, *genuineness* is defined as exposing one's real self in interactions with others, as opposed to wearing a persona. In terms of children with dyslexia, this is essential. Many of the participants in the current research had been treated unfairly by teachers, undoubtedly leading to mistrust. By showing genuineness, teachers can re-establish trust with their dyslexic pupils. Finally,

empathy is defined as being able to appreciate the thoughts, feeling, emotions and experiences of another person, and can be developed through “trying to understand the feelings behind a person’s words” (Lawrence, 1996, p.25). It is critical that teachers of children with dyslexia adopt an empathetic stance, since, like acceptance, this will lead to a decreased feeling of isolation/exclusion.

How successful would a counselling approach to teaching be in terms of self-esteem in dyslexia? Perhaps unsurprisingly, there is a paucity of research in this area. However, the logic behind the suggestion is sound. As established in 3.1, teachers are increasingly significant others, and as such contribute to the make-up of their pupils’ self-esteem. In a situation where teachers adopt a consistent approach to teaching dyslexic pupils in which they are accepting, genuine and empathetic, one could reasonably expect to see this reflected in increased self-esteem. Indeed, in other contexts where Rogerian counselling approaches have been used in teaching, positive results have been reported (Zimring & Raskin, 1992; DeCarvalho, 1991).

Authors such as Gurney (1988) and Wetton and Cansell (1993) have suggested a link between teacher self-esteem and the self-esteem of the pupils they teach. For example, Gurney (1988) argues that several factors must be present if a teacher is to facilitate positive self-esteem in her pupils:

- “1. The teacher must be adequately trained.
 2. The teacher must be, or become, accepting of pupils.
 3. In order to achieve item 2, the teacher must become more self-accepting.”
- (Gurney, 1988, p.115)

Such suggestions are in line with Lawrence’s (1996) views, as they emphasize the importance of *acceptance* in the teacher-pupil relationship. Further to this, Gurney (1988) has discriminated a number of teaching behaviours which appear to be crucial in helping low self-esteem pupils, based on extensive research (Table 41, below):

Teacher Behaviour
1. has warm positive attitude to pupils.
2. is acceptant of pupils.
3. is acceptant of self.
4. democratically establishes minimal rules.
5. enforces rules consistently and with compassion.
6. uses open-ended questions.
7. shows reflective listening skills.
8. shows respect for pupils as persons.
9. encourages diversity in personality, activities and responses.
10. shows competent grasp of subject content.
11. uses praise effectively.
12. trains pupils to use positive self-referent verbal statements (PSRVS).
13. models PSRVS.
14. plans and ensures that individual pupils predominantly achieve success.
15. provides effective counselling skills when required.

Table 41. Key teacher behaviours in facilitating positive self-esteem (adapted from Gurney, 1988).

In the context of the current research, the reader's attention is drawn in particular to behaviours 7, 8, 9, 12, 13 and 14. If teachers actively used reflective listening skills and respected children as people, then the experiences of children such as Child G, Child AA1 and Child II might be avoided:

"I've got a problem and they say 'put your hand down'" (Child G)

"My primary substitute teacher refused to give me help and sent me to the headmaster" (Child AA1)

"I had a supply teacher who wouldn't help me – I just feel invisible" (Child II)

In addition to this, the encouragement of diversity in personality, activities and responses would foster a more positive classroom atmosphere in which children with dyslexia were actively included academically and socially. Through training pupils to use positive self-referent verbal statements (and modelling them), teachers could make their dyslexic pupils feel important and wanted, and not 'stupid and thick' (Child M). Finally, through planning and ensuring that individual pupils predominantly achieve success, teachers could help dyslexic pupils avoid the 'helpless' state that many of them appear to feel (see 8.2.5).

9.3 Peers as Significant Others: Possibilities for Intervention

Peers have been demonstrated to be perhaps the most significant others in a child's life, outweighing even parents (see 3.1). Further, they are important sources of self-esteem (Kirchner & Vondraek, 1975), particularly after around the age of 8, when self-referential statements shift from the absolute to the comparative (Gurney, 1988). In the current research, participants' peers were demonstrated to be a source of low self-concept and self-esteem, although this was highlighted more in the qualitative than in the quantitative data. In particular, the problems of bullying and teasing were a recurrent theme.

What strategies can be adopted to stop bullying and teasing of dyslexic students? Since the bullying is related to the children's difficulty in learning situations, it is appropriate to examine the general area of bullying intervention with regard to learning difficulties. Children with special needs have long been over-represented as victims of bullying (Whitney et al, 1992), usually because they present an easy target for the cowardly mentality of the bully. As a response to this, children with special needs often attempt to hide their difficulties to divert attention away from themselves (Riddick, 1996). This can be counterproductive, as it can increase the feelings of isolation a child feels, since his difficulties are 'known' only to him/her. It can also make precise identification and intervention a difficult task for the teacher.

Bullying intervention programmes have traditionally been approached on a whole-school or LEA level (Sharp & Smith, 1991; Keele University Partnership, 1997; Ortega & Lera, 2000). However, as Sharp (1998) points out, every student is different

and the bullying situations which they face will vary. Nonetheless, research has tended to focus on how whole-school approaches, such as policy changes, can alter the incidence of bullying. Keele University Partnership (1997) report on the introduction of anti-bullying policies in schools in Staffordshire. In line with the current research, the authors found that victims of bullying were often those who were considered 'not clever/thick', displayed lower levels of self-esteem and were more likely to feel isolated and excluded. Reporting on the success of anti-bullying policies, the authors report several common factors:

1. Crisis intervention following actual incidents.
2. Action with bullies and victims by staff and peers over a longer period.
3. Sanctions
4. Attitudinal change through assemblies, personal and social education, and tutorial work.
5. Shared value systems such as contracts, and a positive school ethos. (KUP, 1997)

Although such policies have been shown to reduce rates of bullying, they are not without problems. Importantly, such policies can only affect change in witnessed or reported cases of bullying. When the victim does not report incidents of bullying, whole-school policy is relatively arbitrary, because staff are not aware of the bullying unless they personally witness incidents. This has particular significance in the context of the current research, in which many of the bullied participants reacted to bullying simply by trying to ignore it. The problem of unreported bullying has provoked authors such as Lawson (1994) to develop intervention techniques for children who may be considered 'at-risk'. Rather than focusing on whole-school policy on bullying (although this is considered), the author suggests ways for parents and teachers to identify victims and bullies, and offer coping strategies to help children who may be being bullied. These include assertion training, social skills training, and other methods of decreasing the chances of a particular child being bullied.

Whole-school bullying intervention is only one of the ways in which peers as significant others can be used to help children such as those reported on in the current research. Authors such as Cowie and Wallace (2000) have suggested that peers can

also be used to proactively support vulnerable young people on social, emotional, psychological and educational levels. The notion of 'peer support' has received considerable attention recently, and is worth discussing in the context of the current research. Cowie and Wallace (2000) provide a model of the various modes peer support can take (Figure 21, below):

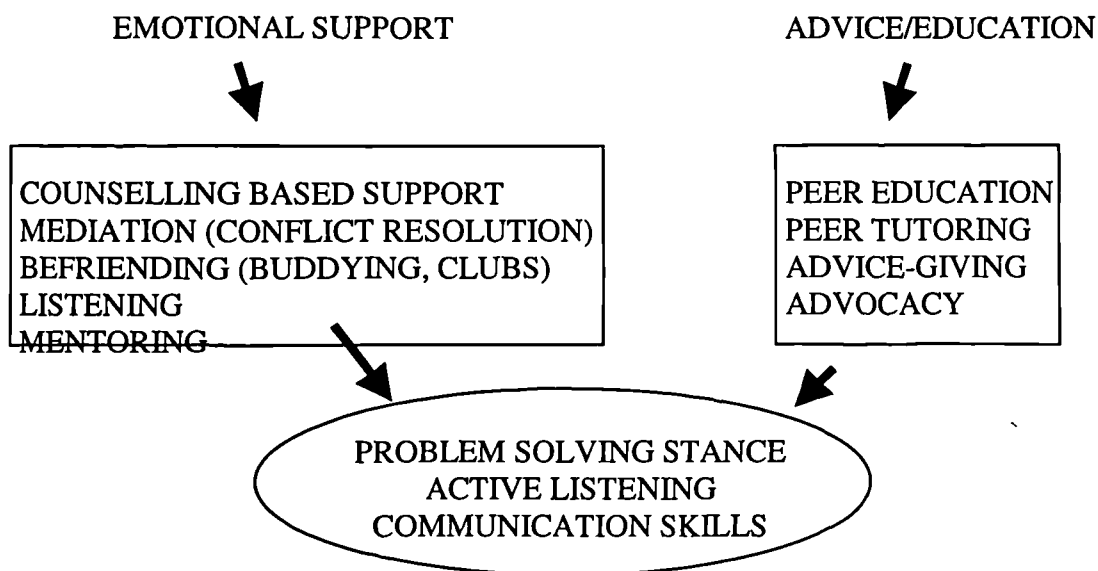


Figure 21. A model of peer support based on Cowie and Wallace (2000).

The methods through which peers can support each other are numerous. Taken together, they can form a whole-school policy of intervention for vulnerable children (Cowie and Wallace, 2000). Emotional support can be provided for at-risk children using counselling based approaches, mediation, befriending and listening. Counselling based approaches require training by qualified counsellors or psychologists, but can be beneficial as children:

“learn how to rediscover their natural ability to give and get good attention from one another through basic listening skills. These skills are then used on a structured basis whereby, through mutual consent, people of all ages and backgrounds assist one another in co-counselling sessions to ‘discharge’ (emotions) confidentially and free themselves from old hurts” (Cartwright, 1996, p.101)

Conflict resolution and mediation approaches offer a structured method for empowering young people to defuse interpersonal disagreements among peers, and present as an alternative or 'addition' to the less direct methods discussed at the beginning of this section. Pupils involved in mediation are reported to develop competence in handling conflict, gain insights into its origins and solutions and acquire new communication skills (Cowie & Wallace, 2000). Just as importantly, these methods are reported to result in a substantial decrease in the incidence of conflict situations (Konfliktradet, 1999).

Befriending and listening are crucial components of the emotional support 'service' that peers can provide for each other. The process can build on children's natural helping skills, and can utilise a school's extra-curricular activities, such as clubs and teams, in order to provide vulnerable, socially excluded children with a context in which they feel welcome and valued. It also gives children the opportunity for reciprocal companionship. This approach has been successfully implemented in many schools under the guise of 'Circle Time', discussed later in the chapter.

What benefits might such emotional support approaches have for our dyslexic sample? Clearly, one might expect that such approaches would reduce the feelings of exclusion and isolation which the children in the current research expressed. However, much of the evidence presented in favour of peer emotional support does not distinguish its effects on different subgroups of the school population. Therefore, we cannot make assumptions that such support will have its desired effects on children with special needs (in particular, dyslexia). What is needed in the future is a systematic study which addresses peer emotional support directly pertaining to areas of the special needs population:-

The other main strand of Cowie and Wallace's (2000) model of peer support is generally concerned with *educational* intervention. Peer tutoring is a method which has long been associated with efficient remediation of academic problems in children (Cloward, 1967). However, peer tutoring may have other benefits. Indeed, Gurney (1988) reports that "in a neutral, non-confrontational mode, mutual respect is generated, personal relationships are strengthened and the self-esteem of both parties is enhanced" (p.74). The possible benefits of peer tutoring in the context of the

current research are numerous. Firstly, the use of peer tutoring as opposed to withdrawal sessions means that children with dyslexia are less likely to be perceived as 'different' (although the current researcher acknowledges that not *all* peer tutoring involves withdrawal). Secondly, as the 'mutual respect' which Gurney (1988) describes grows, the peer tutor is able to learn more about the reality of dyslexia, as opposed to the stigmatising, negative stereotype that many children appear to hold. The tutoring sessions may also open doors for social interaction opportunities which may not have been available to the child previously. Finally, with the academic success that peer-tutoring advocates claim, one could logically expect boosted self-concept and self-esteem levels.

Peer mentoring, as opposed to tutoring, could also be beneficial in the context of the current research, and involves,

“a supportive one-to-one relationship between a younger student (the mentee) and a more experienced student (the mentor). The mentor acts as a role model and aims to provide heightened aspirations, to offer positive reinforcement and open-ended support, and to provide an arena in which to develop a problem-solving stance to important life-span issues, such as career choice” (Cowie & Wallace, 2000, p.21)

At present, as with peer emotional support approaches, there is a relative paucity of research for peer mentoring with special needs populations. Indeed, Cowie and Wallace (2000) concede that there is little other than anecdotal evidence for any area of peer mentoring. However, as with certain other areas already discussed, there does appear to be logic behind this approach being applied to children with dyslexia. Firstly, a peer mentor would provide the dyslexic child with a 'confidant'. This would be particularly important in cases where the child did not feel a great deal of trust towards his/her classmates or teacher (as some of the Dyslexic-mainstream sample indicated). Secondly, the use of a role-model would not only give the dyslexic child aspirations to aim for, but might also indirectly increase self-esteem, since his/her 'ideal self' would no longer be seen as an intangible fantasy. Given this course of reasoning, the most suitable candidates for peer mentoring with children

with dyslexia would be *dyslexics* themselves. This is another idea that warrants further research.

Taken as a whole, peer support systems seem to be an means of intervention in relation to our dyslexic sample. Where research has been carried out, results have been favourable. In cases where there is no empirical support as yet, it is possible to see the logic of the approaches as they might apply to children with dyslexia. However, it must be noted that certain approaches carry with them age-related restrictions. For instance, peer counselling, peer mentoring and peer tutoring are reported to be unsuitable for children under 11 years of age, and conflict resolution/mediation is deemed inappropriate with children under the age of 9 (Cowie & Wallace, 2000). Further, in an education system where so much is decided on the basis of budgets, approaches such as peer counselling, where professionals are required to provide training, are unlikely to be at the top of many schools' spending lists. However, given the increasing evidence that peers are perhaps the most important contributing factor in the development of children (Harris, 1998), the current researcher suggests that priorities should be changed sooner rather than later.

9.4 Attribution Training

Although the attribution questionnaire played a 'supporting role' in the current research, the importance of attribution theory with relation to self-concept, self-esteem and academic achievement in dyslexia is paramount. As discussed in Sections 3.2, 8.2.5 and 8.4, attributional style is closely related to self-concept, self-esteem, and academic achievement. Indeed, Hiebert et al. (1984) state that "numerous studies have established a clear relationship between children's achievement and causal attributions for success and failure" (p.1139), whilst Shavelson and Bolus (1982) report that self-concept is formed in part by "one's attributions for one's own behaviour" (p.3). It is in view of this evidence that the current researcher decided to examine possibilities for intervention based on attribution training.

Attribution training can be a difficult process, for several reasons. Firstly, since attributional style is intrinsically linked with so many different factors and facets of the human condition, it can be difficult to identify causal links. Secondly, in the case

of children, the 'little scientist' approach taken, in which only observable factors are accounted for (Kelly, 1955), can mean that the events which reinforce maladaptive attributions are consistent and relatively stable. Therefore, it is naïve to conceptualise attribution training alone as an effective intervention strategy (Chen, 1990); one must also consider the factors (such as experience of failure) which contribute to maladaptive attributions.

Attribution training can take a number of forms, largely dependent on the theoretical orientation of the trainer. Van Overwalle and de Metsenaere (1990) report on the success of a modelling approach, in which freshmen college students were shown video-taped interviews with senior students who related the causes of their success and failures at the beginning of the first year, and how they had managed to improve their examination scores at the end of the year. The authors report that this attribution video manipulation significantly increased the number of subjects who passed the final examinations at the end of the first year relative to a group of control subjects. However, it must be noted that the change in attributional style inferred by the authors was not explicitly tested, and so the results are interpreted tentatively. Further, the authors did not distinguish between high and low achievers, and therefore the generalisation of the approach to the context of the current research is not necessarily a valid one.

A study of attribution training in a more comparable context is provided by Carr and Borkowski (1989). In their study, 52 underachieving students participated in an intervention programme comparing the effects of strategy-plus-attribution training, strategy-only training, and no-training conditions on reading comprehension. Results indicated that the addition of attributional components to a comprehension strategy training program produced significant gains in strategy use, recall, reading grades and attributional style. The authors surmise that the addition of attributional components improved reading performance by "providing the impetus, via modified effort-related attributions, for the generalised use of the trained strategies" (Carr & Borkowski, 1989, p.327). In the context of children with dyslexia, attribution training could be provided as an important addition to the academic strategies employed by schools. In this way, children with dyslexia could not only improve their academic performance, but also begin to take personal credit for it.

9.5 From Exclusion to Inclusion: Intervention at Cultural, Policy and Practice Levels

The level of exclusion felt by the participants in the current sample was one of the most salient themes. Although all the approaches to intervention discussed thus far are likely to help children with dyslexia to feel that they are 'included' more, it is also pertinent to examine government policy with regard to inclusion. It is at this level, the current researcher suggests, that many of the problems faced by the current sample originated.

As discussed in 8.2.5, there appears to be a disparity between the government's (DFEE, 1997) notions of inclusion and what is actually happening to children with special needs (in this case, dyslexia) in mainstream schools. To explain this point further, it is useful to draw an analogy with Gurney's (1988) notion of the different levels of 'integration':

- Locational integration – refers to the children with special needs attending the same schools and classes as those without special needs;
- Social integration – refers to where, “special needs children mix with other children to eat, play and participate in out of school activities” (Gurney, 1988, p.79);
- Functional integration – refers to situations in which special needs children join 'ordinary' children for the general curriculum on a full or part-time basis;
- Psychological integration – refers to situations in which we find, “a positive attitude towards children with special needs clearly evident in both staff and children in the ordinary school... this process is helped if the school is actively teaching the skills and attitudes of independence” (Gurney, 1988, p.79).

The government's recent initiatives appear to have concentrated simply on locational and functional integration. The evidence from the current research suggests that children with dyslexia are being let down at both the social and psychological levels of 'integration'. Moreover, when initiatives concentrating on social inclusion have

been forthcoming (i.e. DFEE, 1999), they have concentrated exclusively on the extremes: children with behavioural difficulties, disaffected children, children permanently excluded from their schools and so on.

How might we go about the process of developing a truly inclusive education system, which caters for children with dyslexia (or any other special educational need – after all, this is an issue pertinent to anyone whose needs are different from ‘the norm’) at locational, functional, *social* and *psychological* levels? Booth et al. (2000) have suggested that true inclusion must mean that issues are addressed across three dimensions. On the *cultural* dimension, we need to “create a secure, accepting, collaborating, stimulating community in which everyone is valued... The principles derived within inclusive school cultures guide decisions about policies and moment to moment practice so that the learning of all is supported” (Booth et al, 2000, p.9). In the context of the current research, a change from the emphasis on purely academic achievement which permeates current school cultures would certainly help to create feelings of inclusion. On the *policy* dimension, the authors suggest that inclusive issues must permeate *all* school policies, so that the capacity of a school to respond to student diversity can be increased. Finally, on the *practice* dimension, it is suggested that schools need to ensure that classroom and extra-curricular activities encourage the participation of all students. This issue will be expanded upon in the next chapter.

9.6 Self-Concept and Self-Esteem Intervention Programmes

Thus far, the discussion of intervention possibilities for children with dyslexia has focused on methods that may *indirectly* increase self-esteem and self-concept. Indeed, very little in the literature actually cites intervention programmes that both directly pertain to self-esteem and/or self-concept *and are also* embedded in an appropriate theoretical grounding (Mruk, 1999). However, some researchers, such as Frey and Carlock (1989), Pope, McHale and Craighead (1988), and Bednar, Wells and Peterson (1989) have suggested programmes for increasing self-esteem that draw directly from the major psychological paradigms. Their applicability for children with dyslexia remains the main point of discussion.

9.6.1 Humanistic Self-Esteem: Frey and Carlock (1989)

Frey and Carlock (1989) have presented a programme for self-esteem enhancement that, although mainly humanistic in nature, draws on other paradigms at various points. The programme comprises several distinct stages, outlined below (Figure 22):

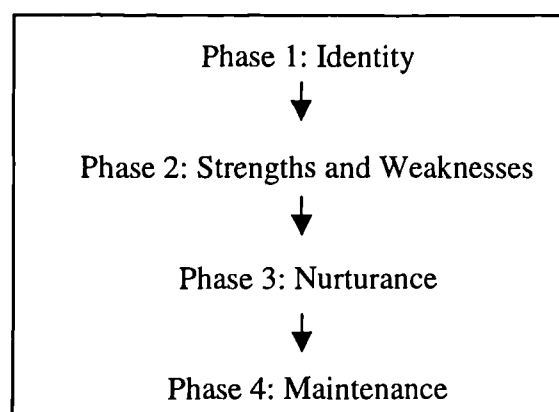


Figure 22. A four-phase model of self-esteem intervention (adapted from Frey & Carlock, 1989).

The first stage, that of ‘identity’, involves the individual addressing exactly *who* they are. The rationale for this is explained clearly by the authors:

“Initially in intervention, an individual with low self-esteem needs to discover his/her identity. Because of distorted perceptions, such persons rarely have a clear understanding of who they are” (Frey and Carlock, 1989, p.181).

The process of increasing self-awareness highlights for individuals the fact that there are often obstacles that block self-experience which have to be worked through in order to know about ourselves and our self-esteem (Mruk, 1999). This process is aided by value clarification activities.

The second stage of Frey and Carlock’s (1989) programme focuses on strengths and weaknesses. The activities suggested by the authors allow strengths to be identified in meaningful ways for participants. Such an approach is important for those with low

self-esteem, who almost always focus on their limitations and ignore their strengths. Indeed, this was often the case in the current sample. This phase of the intervention also works on how people filter information about themselves, particularly maladaptive negative interpretations. When a positive self image has taken root, the individual is ready to move on to the nurturance phase, in which pro-self-esteem behaviours are consolidated outside the supportive environment of the intervention programme. In the final, maintenance stage, individuals learn exercises to maintain their self-esteem. This final stage is crucial, as it empowers the individual to adapt to changing situations with greater ease.

The important question, as far as the current research is concerned, is ‘is this programme applicable to children with dyslexia?’, and is difficult to answer, for a number of reasons. Primarily, because of the humanistic nature of the intervention, it is not open to observational or experimental validation, and as such there is little published research in support of the programme (other than from the authors themselves). It is difficult to second-guess the applicability of a programme for a particular population whose success has not yet been demonstrated! However, as before, we can apply a certain amount of logic and estimate the programme’s worth in the current context. Although Frey and Carlock’s (1989) programme was initially intended for use with clinical populations, it could certainly be applied in an educational context with some modification, perhaps as part of students’ personal and social education. Each phase in the programme could be beneficial for dyslexic students, particularly phase 2, in which personal strengths are emphasised. However, given the amount of time that such an intensive programme would take, coupled with the possibility of special training being required for teachers, it is unlikely that such an intervention would be put to use in our education system.

9.6.2 Behavioural Self-Esteem Enhancement: Pope, McHale and Craighead (1988)

Pope et al.’s (1988) self-esteem intervention programme is a crucial addition to our discussion of the implications of the current research, for three reasons. Firstly, the authors have drawn their intervention from a theoretical background and definition of self-esteem that is extremely similar to the current researcher’s (see 2.1). That is,

self-esteem is calculated using the discrepancy notion: an evaluation of self-worth based on the difference between an individual's ideal self and the perceived or actual self (Mruk, 1999). Self-esteem problems materialise in one of two ways. In some cases, the goals which an individual sets him/herself are too high and unrealistic. The resulting gap between what is wanted and what is achieved causes low self-esteem. In other cases, such as those seen in the current research (particularly with the semantic differential scale), ideals and expectations are appropriate, but the person fails to live up to them. As with the current sample, this cause of low self-esteem is exacerbated in situations where an individual's actual ability is discrepant with his/her achievements.

The second reason that Pope et al.'s (1988) intervention programme is a worthy addition to our discussion is that it is the only self-esteem programme of note which has come to the current researcher's attention that actually acknowledges the multi-dimensional and hierarchical nature of the self. In the case of the current research, where both specific and global deficits were found, a programme which addresses both in a systematic way is highly valuable. Pope et al.'s (1988) programme addresses five domains in self-esteem: global (overall), social (evaluation in relation to others), academic, family (value as a family member), and physical appearance/abilities. Finally, Pope et al.'s (1988) programme is also specifically directed at children.

Pope et al.'s (1988) programme begins with an assessment of the child's self-esteem. This is done, in line with the current research, through extensive use of interviews and self-esteem-related inventories. The authors also recommend observations of the child engaging in everyday activities. The assessment process is used to highlight which particular domain(s) of the child's self-esteem is/are deficient. In attempting to identify the causes of particular deficits, the authors suggest using further sources of information, such as parents, friends, school teachers and so on. In addition to investigating the child's problems, however, the initial assessment process is also used to understand the child's strengths and self-evaluative styles.

The second stage of Pope et al.'s (1988) programme involves enhancing the child's self-esteem by teaching him/her age-appropriate skills "to help him or her handle the

demands and problems of life more effectively” (Mruk, 1999, p.142). The mechanics of this enhancement programme involve eight distinct ‘modules’, each of which addresses a certain kind of behavioural, cognitive, or social skill related to self-esteem. The skill areas are used to help the child learn to solve social problems, develop positive self-statements, use a realistic attributional style, set appropriate standards, and so on. The skills and exercises which the child is taught are used in ‘homework’ assignments, a technique that reinforces the new material and helps the child relate their therapeutic experience to the real world.

As with Frey and Carlock’s (1989) approach, the evaluation of this intervention programme must rest on what can be inferred, as there is no empirical evidence to support the authors’ claims. However, this limitation notwithstanding, Pope et al.’s (1988) approach to self-esteem enhancement does have much to be said for it, particularly in the context of the current research. As already mentioned, the programme is specifically aimed at children, and addresses the self as a multidimensional and hierarchical construct, which is in line with the current researcher’s conceptualisation. The programme also has a high degree of transparency, in that its steps are easy to see, logically progressive and efficient (Mruk, 1999). There is a clear, logical connection between the programme’s activities and the cognitive-behavioural therapeutic techniques, such as positive reinforcement, problem solving, and modifying self-talk. The programme also addresses issues on the fringe of positive self-esteem, such as attributional style, which would be particularly helpful for the current sample. Finally, the authors report that the programme can be used effectively in individual *or* group settings. This will be an important consideration when we come to look at exactly *how* and *when* these programmes might be implemented in a school-based setting.

9.6.3 Cognitive Self-Esteem Enhancement: Bednar, Wells and Peterson (1989)

Bednar et al.’s (1989) cognitive approach to self-esteem enhancement is based upon the concepts found in information-processing psychology, such as feedback, circularity, and self-regulation. The authors define self-esteem as a feeling of self-approval, a description which is roughly in line with the current researcher’s broad definition (see 2.1). In addition, they describe the self as a dynamic phenomenon

which develops largely as the result of feedback. This feedback may be external (or 'interpersonal'), or internal, the former of which involves our processing of information from others in social situations, and the latter of which is concerned with the evaluations we make of our own behaviour and selves (Bednar et al. 1989). However, the authors also point out the importance of the individual's natural 'response style', or how a person deals with stress or conflict, in the development of self-esteem. In dealing with the difficulties which we face on a day-to-day basis, we are naturally inclined to take one of two approaches. In *coping* with conflict, we are able to maintain stronger psychological health, through facing our problems honestly, tolerating discomfort and uncertainty while doing so, and developing our self-awareness by acknowledging our shortcomings (Mruk, 1999). By *avoiding* that which causes us difficulty or pain, we are cutting ourselves off from important information about ourselves:

"It is as though we try to say to ourselves that this is too unpleasant to be true and then proceed to act as if it were not. However, there must be some recognition of the possibility of truth; otherwise there would be no threat that would mobilise the defences... Obviously the prospects for personal growth are virtually non-existent when the individual's response to threat is to deny that which it has already glimpsed to be true". (Bednar et al. 1989, p.74)

The authors suggest that the adoption of avoidance rather than coping strategies results in a cycle of chronic defensiveness and 'impression management', in which we are required to maintain the façade of well-being whilst the conflict we have avoided remains under the surface. This approach inevitably leads to low self-esteem and an increased sensitivity to further conflict or stress.

Bednar et al.'s (1989) programme of intervention centres on the understanding and reduction of the process of avoidance, whilst also empowering the client with strategies to cope effectively with conflict or stress. The understanding of a particular individual's avoidance strategies is increased by using experiential learning techniques, in which the therapist observes how the client avoids conflicts in 'here-and-now' therapy sessions. When the therapist becomes aware of the client's

dominant avoidance pattern(s), he/she is able to make the client acknowledge them for what they are. The client is encouraged to name and describe each pattern in affective, cognitive and behavioural terms, with the aim of increasing recognition and awareness of when and how often the individual uses the strategies. The final phase involves the client facing the avoidance patterns he or she employs and confronting the negative self-evaluations which accompany them. As with the initial stages of the programme, this is done 'in vivo', and is aimed at making the client realise that whilst accepting responsibility during conflict may be painful, this pain is a necessary part of *coping*, and is more psychologically healthy in the long run than *avoidance*. As the client begins to use his/her newly acquired coping strategies, he/she is encouraged by the therapist to describe them, as with the avoidance strategies, in affective, cognitive and behavioural terms. This process helps to reinforce the strategies and makes the client more aware of all the positive facets they bring.

Although Bednar et al.'s (1989) programme has (according to the authors) performed favourably with clinical populations and those displaying abnormal behaviour patterns, there are several limitations which become apparent when we attempt to adapt this approach to an educational context. Firstly, as with Frey and Carlock's (1989) programme, specialist training is required for the role of the therapist. Secondly, the programme is intended to be long-term, requiring some consistency. In an educational setting this may not be appropriate, since children change classes, teachers and schools at varying intervals in their school lives. Finally, as with the other programmes discussed thus far, empirical validation has not been forthcoming, and funding for such a venture in an educational context is unlikely to be given without strong evidence that the approach succeeds in enhancing self-esteem.

9.6.4 Enhancing Self-Esteem in an Educational Context: Circle-Time

Although the three major programmes outlined above have limitations when applied to an educational context, it is clear that the possible and likely benefits they would bring deserve some attempt at integration into the school culture. It is certainly possible to draw together the strongest elements of each in a way that will provide the greatest possible outcome for the children involved. Clearly, it is unlikely that teachers will be provided with the specialist training that any one particular programme (particularly

Frey and Carlock's (1989) or Bednar et al's (1989)) requires, but in an education system in which teachers are increasingly becoming seen as counsellors as well as educators, there is the possibility of compromise. Further, in what has become known as 'circle-time', we have a context in which a framework for enhancing self-esteem through a therapeutic intervention is both feasible and, in certain cases, already part of the school timetable.

Circle-time is one of the most rapidly growing techniques in education (Curry, 1997). Bliss and Tetley provide an accurate, concise description of its components:

"Circle-time is a time set aside each week when children and their teacher sit in a circle and take part in games and activities designed to increase self-awareness, awareness of others, self-esteem, co-operation, trust and listening skills... As children learn more about themselves and each other, a warm and supportive group atmosphere is built, along with improved relationships." (1997, p.4)

Circle-time usually lasts for about 20-30 minutes, and is often used as a 'round-table' for discussion of important issues, matters of personal concern, exploration of relationships with adults and peers, and the development of a sense of being members of a community (Cowie & Wallace, 2000). In itself, this may therefore be conceptualised as a process akin to 'group therapy', and it is in light of this that the current researcher suggests that it is the ideal forum for self-esteem-related intervention with children with dyslexia and other learning difficulties. Indeed, as in group therapy situations, the teacher/counsellor takes the role of chairperson and facilitator, and every member of the group is treated equally, in a non-judgemental, affirmative way. Importantly, like group therapy, circle-time provides a context in which the children/clients feel safe, and confident enough to air their views without fear of reprisal.

In addition to our investigation of the particulars of the circle-time ethos, it also is important to look at how a therapeutic intervention which integrates the strongest elements of the major self-esteem programmes might be put to use with children with dyslexia. The framework for intervention which is most suitable is that of Pope et al.

(1988), since it was designed for use with children, and requires less specialist training than do other programmes. Further, it is transparent, systematic, and importantly, can be applied to groups, making it an ideal match for the circle-time context. In the initial assessment of the children's self-esteem levels, the teacher may adopt any of Pope et al.'s (1988) suggested techniques, although the current researcher suggests that some form of observation or interview, coupled with a self-esteem inventory (to provide a baseline score if one is needed) may be sufficient. However, in addition to the basics of Pope et al.'s programme, it is important to draw in the strong elements from the others. In particular, Frey and Carlock's (1989) emphasis on recognising and dealing with strengths and weaknesses could be integrated into the 'therapy'. One of the outstanding themes of the current research was the negative way in which dyslexia was viewed, largely because the participants only seemed to be aware of the *weaknesses* associated with it. The therapeutic context would be an ideal opportunity to make children aware of the strengths associated with dyslexia. Davis (1997) has suggested 8 abilities that most dyslexics share (Table 42):

Common 'Strengths'
1. Utilising the brain's ability to alter and create perceptions.
2. Highly aware of the environment.
3. High level of curiosity.
4. Think in pictures instead of words.
5. Highly intuitive and perceptive.
6. Think and perceive multidimensionally (using all the senses).
7. Can experience thought as reality.
8. Have vivid imaginations.

Table 42. Common Strengths in Dyslexic Populations.

To reinforce the perception of dyslexia as a condition with associated strengths as well as weaknesses, the teacher might also use the therapeutic context to make children aware of the large number of talented and famous dyslexics, so that by contrast with the experience of many children in the current sample, the condition is not instantly associated with failure. Davis (1997) points to Albert Einstein, Leonardo

da Vinci, Winston Churchill, Whoopi Goldberg and Duncan Goodhew among others as examples of people with dyslexia who have gone on to succeed in life. Riddick reports on how some children with dyslexia have already chosen to use this strategy as a defence against teasing and bullying:

“Oh Einstein dead thick, eh?” (1996, p.86)

An added advantage of bringing such elements to bear in a group setting is that children without learning difficulties are also enlightened about the condition. This may reduce the stigmatisation children with dyslexia experience.

When the focus of the intervention turns to weaknesses, the current researcher suggests that Bednar et al.'s (1989) conflict-resolution approach would be a useful addition, since it is likely to be the child's weaknesses, rather than strengths, which cause situations of stress or conflict. Through acknowledging weakness and coping with conflict and stress in the manner that Bednar et al. (1989) suggest, the children would be more likely to develop healthy psychological strategies for the future. These strategies could even be actively taught as part of the 'skills' stage of Pope et al.'s (1988) framework.

9.7 Intervention: Possibilities and Reality

In concluding the 'intervention' section of the current research, there are several issues which we need to consider. Firstly, the feasibility of the intervention methods suggested needs to be evaluated. Secondly, the lack of *self-concept*-related programmes warrants some discussion. Finally, an attempt to draw together the main points of the chapter into some kind of logical synthesis will be made.

How feasible are the intervention methods outlined in this chapter? The current researcher hopes that schools and LEAs will see them as both feasible and necessary, for several reasons. Firstly, as will be outlined in more detail in the concluding chapter, the issues of self-concept and self-esteem pertain not just to children with dyslexia, but to any child in our education system, particularly those with special educational needs. Dyslexia has served as model or exemplar for how, given the

educational context in which we find ourselves, children with different learning needs can find themselves isolated from their peers and feeling unworthy. Although dyslexia as a disorder has certain effects on the self which are unique, such as feelings of inferiority caused by societal emphasis on literacy, it is easy to see how most of the deficits shown in the current research could be generalised to the rest of the special educational needs population.

A second reason that the current researcher hopes will make schools and LEAs see self-related intervention as a necessary venture is the oft-cited link between self-concept, self-esteem and academic achievement. Although, as we saw in Chapter 3, a positive self-concept and/or high levels of self-esteem alone are not enough to ensure academic achievement, the research suggests that there *is* a clear, bi-directional relationship (Burns, 1982; Liu et al, 1992; Newbegin & Owens, 1996). In a climate where (as the government likes to remind us – DfEE, 1997) ‘excellence for all’ is paramount, investing in a system of intervention which not only facilitates positive personal development in children, but is also likely to have ‘knock-on’ effects in the area of academic achievement seems like good common sense. Used in combination with a teaching system and school climate which is more amenable to children with special educational needs, described in the next chapter (for the case of dyslexia), the aspirations of ‘inclusion’ and ‘excellence for all’ begin to seem less like a dream, and more like reality.

The final reason why the intervention methods in the current research should be viewed as a feasible and necessary venture relates to the relative ease with which many of them could be implemented in schools. Circle-time, as mentioned in 9.6.4, is one of the most rapidly growing techniques in education. Indeed, most primary schools, although they may not be explicitly aware of it, practise the key areas of circle-time at varying levels in class discussions, assemblies and the like (White, 1993). At secondary level, the ethos of circle-time disappears somewhat, but is apparent in areas of the PSHE curriculum (Mosley & Tew, 1999). In both cases, there is potential for expansion and assimilation of the methods outlined in this chapter.

The intervention methods discussed in the current research have been specifically related to self-esteem rather than self-concept. There is a distinct paucity of published

programmes which actually address self-concept alone. This may be because, as discussed in Chapter 2, many people (incorrectly) use 'self-concept' and 'self-esteem' as interchangeable terms. This is evident in what little published research there is on self-concept-based intervention (e.g. Obiakor & Stile, 1989; Clymer, 1995), whose content, centred upon feelings of worthiness and value, is more akin to self-esteem intervention. A more understandable reason for the lack of self-concept-based intervention programmes is that those authors who have published prominent self-esteem programmes (such as those discussed earlier in this chapter) have recognised that, due to the nature of the link between self-concept and self-esteem in the self is such that it is difficult to alter one without affecting the other. Thus, although they may not explicitly state it, self-esteem programmes are also designed to enhance the self-concept. In terms of other, indirect methods of enhancing the self-concept of children with dyslexia, the current researcher suggests that the most appropriate method is the experience of success in school. As Gurney (1988) has pointed out, "nothing succeeds like success!" (p.91).

In attempting to draw together the main points of this section, the current researcher feels that the most appropriate and amenable conceptualisation is one which addresses the issues at the different levels of our educational context. Thus, the reader is pointed towards Figure 23, which presents the implications outlined at cultural, school, class and child levels:

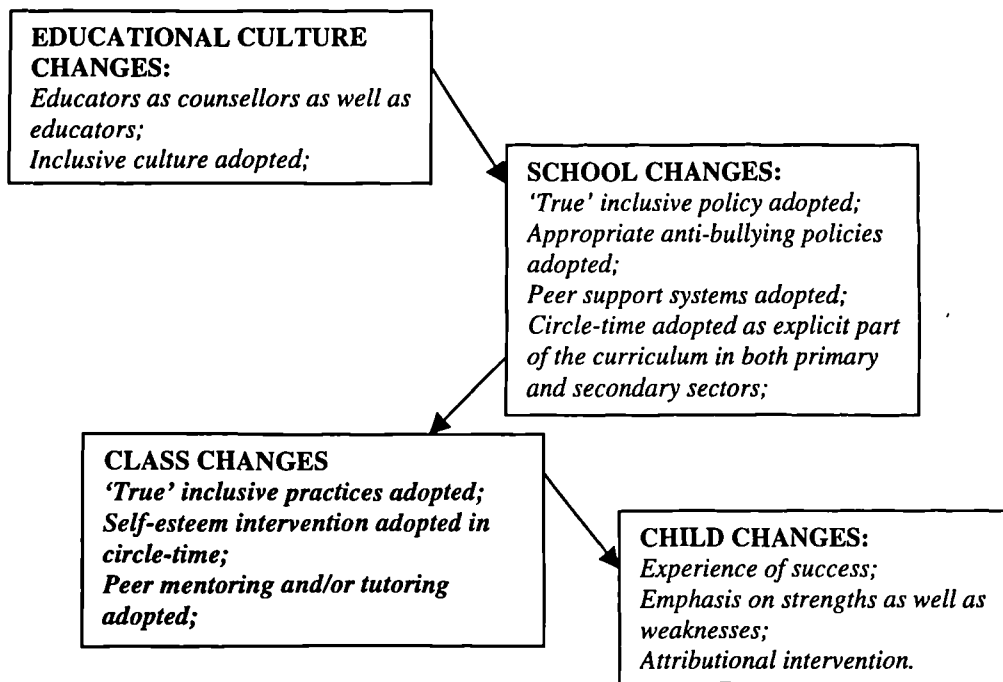


Figure 23. A model for change at cultural, school, class and child levels based on the implications for intervention of the current research.

10

Implications Part 2: Prevention

The second chapter of the 'implications' section of the current research is aimed at focusing on what in the education system can be changed so that future cohorts of dyslexic students (and, indeed, other children with learning difficulties) need not suffer from low self-esteem and poor self-concepts. As with the previous chapter, this links specific teaching and learning changes with wider, more global educational issues.

10.1 Early Identification of Children with Dyslexia

The findings of the current research have definite implications for early identification of dyslexia. Before these are explored, it is necessary to provide an overview of the current state of affairs in the early identification field.

How early is 'early'? Several authors (e.g. Augur, 1990; Scarborough, 1991; Miles & Miles, 1999) have investigated a very important and contentious question in the research community: how early can dyslexia be reliably identified? In attempting to provide a cogent answer to this question and show how this relates to the current research, the current researcher must first provide a qualifier. Early identification and early diagnosis are two *different* but related parts of an ongoing educational process. Generally speaking, early *identification* in this context refers to picking up on the early symptoms which might signify that a child is 'at-risk' for dyslexia. Early identification is therefore a pre-literate, even *pre-school* issue. Once the signs and symptoms (discussed later) have been noticed, appropriate action can be taken to secure a positive prognosis. Early *diagnosis* is part of this effective action. When a child has been identified as being 'at-risk' for dyslexia, intervention can occur, progress can be monitored, and if necessary, a diagnosis of dyslexia made. With diagnosis comes more effective educational intervention (Miles & Miles, 1999).

Are there precursors to dyslexia which can be identified before the child even learns to read? Augur (1990) suggests that there *are* certain signs that make predicting those at risk for dyslexia:

“My little granddaughter has an early family lisp. She chatters incessantly, but it is not always clear what she is saying. She mixes up lots of words and phrases, e.g. ‘tebby-dare’ for ‘teddy bear’, ‘Mishyell’ for ‘Michelle’, ‘cobblers club’ for ‘toddlers’ club’. She confuses ‘in’ with ‘out’, ‘up’ with ‘down’. She has difficulty labelling, so that when asked to name a certain colour when the latter is indicated to her she cannot, but when that colour is named for her, she can pick it out of a range of colours when asked to do so. She prefers activities with a technical or three-dimensional content. In view of our family history I am watching her with great care.” (Augur, 1990, p.10-11)

Despite the anecdotal nature of this evidence, there is an intuitive logic behind the suggestion that dyslexia can show itself in pre-readers. It is, after all, a neurological condition associated not just with reading, but with language in general. Given the neurological roots of the disorder, it would be fair to assume that other areas of functioning would be affected, since the areas of the brain associated with dyslexia also serve several other functions (Stein & Walsh, 1997). From this, it can be reasonably inferred that there would be other behavioural indicators which would not require the child to be learning to read in order for them to be displayed. This line of thinking has been supported by empirical studies concerned with identifying ‘at-risk’ children:

“While the educational goal may be to explain reading difficulty for its own sake, the neuropsychological goal is to define the nature of the fundamental difficulty that manifests itself most evidently, but not solely, as underachievement in reading” (Scarborough, 1991, p.38-39)

Despite this growing body of evidence, the earliest dyslexia screening test available *currently* is the Dyslexia Early Screening Test (Nicholson & Fawcett, 1994), which can be used on children of around 4 years 9 months of age. Although identification,

and consequently, diagnosis, are theoretically available at this age, this is often not the case in practice, as many LEAs continue to demand a two year discrepancy between a child's chronological age and their reading age (e.g.. a 7 year-old child with a reading age of 5) before dyslexia is considered (Osmond, 1993). This means that most children, as was the case with vast majority of the current sample, are not diagnosed as having dyslexia until they are at least 7, by which time they are failing.

How does the early identification and diagnosis debate relate to the current research? Specifically, the interview data highlighted several issues that contribute directly to the current impetus for more effective early diagnosis instruments. Although across both groups there was a generally indifferent-to-negative response to diagnosis, particularly in the Dyslexic-mainstream sample, the need for early identification is very clear. Many of the participants in both groups related anecdotes of upsetting experiences prior to diagnosis, such as:

“They told me I’m a bit slow and messy” (Child C)

“I’ve got a problem and they say ‘put your hand down’” (Child G)

“At primary I wasn’t getting help with my work” (Child VV)

“They said I was slow” (Child FF1)

“They shout at you for not doing work” (Child HH1)

Had such children been diagnosed as having dyslexia earlier, they would certainly not have been labelled as ‘slow’ or ‘messy’. One would also hope that children such as Child HH1 would not suffer the humiliation of being shouted at for being unable to complete their work. For, as Pollock and Walker (1994) suggest, “If teachers tell him [the dyslexic child] that he’s either stupid or lazy... he will come to believe just that” (p.6). Further, as indicated in Chapter 7, around 50% of both groups stated that they had been bullied and/or teased about their difficulties in school. Given that early identification is associated with early intervention and consequently better prognoses (Miles & Miles, 1999), it is logical to assume that such children, had they been

identified earlier, would not have experienced as much difficulty in school, and would therefore not have been subjected to bullying. The more positive prognoses associated with early identification may also have led to a reduction in the current sample's belief that they were academically inferior to their peers (as up to one-third of the current sample indicated). On a more general level, it is suggested that early identification and diagnosis would have resulted in more positive self-concept and self-esteem scores and levels in the current sample. This idea is supported by a recent OFSTED investigation into the provision for children with dyslexia in mainstream schools, in which it was argued that late identification had negatively affected the self-esteem levels of children with dyslexia (OFSTED, 1999), and by Lawrence (1996), who states: "Children with... dyslexia, are likely to present a special case of low self-esteem unless identified early" (Lawrence, 1996, p.84).

What then, can be done to improve the early identification of dyslexia? There is currently a paucity of reliable, recognised instruments for children under 4 years of age, although this is an area being developed by researchers (Miles & Miles, 1999). The other problem is that under the age of 4, children do not usually come under the scrutiny of anyone with sufficient educational expertise to notice key indicators for the 'at-risk' category. The current author suggests that there are two possible solutions. The first is the incorporation of some kind of dyslexia screening test into a nursery baseline assessment procedure. The second is the incorporation of a similar test into the standard assessments made by children's health visitors. Whatever steps are taken, what is of paramount importance is the development of a reliable instrument to screen for those 'at-risk' of dyslexia prior to their beginning reading.

10.2 Institutional Features and the 'Dyslexia-Friendly' School

In Section 3.5, reference was made to the institutional features of schools, and the links between this and the self-perceptions of pupils that had been demonstrated (Beane & Lipka, 1986; Hoge et al, 1990). In light of the current research, it is suggested that such evidence has been further supported. In the current research, there was a clear disparity between the self-perceptions of children with dyslexia attending mainstream schools and those attending specific learning difficulties units, across most (though not all) of the research instruments. The current researcher has

already made tentative suggestions that such differences may be attributable to the institutional features of typical mainstream schools and typical specific learning difficulties units. In this section, this idea is expanded on, and implications for provision for dyslexia in both types of institution are outlined. Although teachers could undoubtedly be classed as one of the many 'institutional features' of a school, their impact on the self-perceptions of children with dyslexia are not discussed here, as this is discussed in a later section (10.3). Instead, the actual teaching and learning climate that dyslexic students face in the different types of institution is the focus for discussion.

Given that, in general, the specific learning difficulties unit group displayed consistently higher levels of self-esteem and more positive self-concepts than the dyslexic mainstream group, it could be argued that the current research provides evidence for excluding children with dyslexia from a truly 'mainstream' education. After all, specific learning difficulties units, whilst more often than not attached to a mainstream school, are practising a form of exclusion – the unit children in the current sample spent most of their school day separated from their 'normal' peers. However, rather than suggesting that the evidence presented here provides support for segregation, the current researcher believes that the institutional features of the unit schools can be used as a model for good practice with regard to the self-perceptions of children with dyslexia. It is suggested that mainstream schools which provide for children with dyslexia would do well to look at the climate within which specific learning difficulties units operate, and attempt to incorporate some of the features into their own settings.

The particular institutional features of specific learning difficulties units are typically devised in such a way that they are what is becoming increasingly known as 'dyslexia-friendly' (see 3.5). Any of these features, it is contended, can contribute not only to an increased chance of academic success for children with dyslexia, but to a more positive self-concept and increased levels of self-esteem. The main features of the dyslexia-friendly school the current researcher observed (other than teacher awareness factors, discussed in 10.3) that relate to the dyslexic child's feelings of self-worth are outlined below (Table 43):

Feature	Description	Why is this dyslexia-friendly?
General	Close liaison between specialist teacher and class teacher	Increased understanding, support and provision available for child
General	Good communication and participation between child, teacher and parents	Increased empathy, support and provision available for child
Teaching	Use of multi-sensory techniques	Enables dyslexic child to learn more efficiently
Teaching	Clarify instructions and ensure all children understand (recall techniques) before proceeding	If dyslexic child understands and remembers a task, he/she has more chance of completing it
Teaching	Achievement, effort and good behaviour are acknowledged across a range of learning activities	The dyslexic child will learn that he/she can make a worthy contribution even if the final answer he produces is not always correct
Classroom management	Equipment and resources organised and available	Enables dyslexic child to learn more efficiently
Classroom management	Classroom size, furniture layout etc. are appropriate (including pupil's place in the class)	Dyslexic child needs to be situated close in relation to the teacher, blackboard etc.

Table 43. Dyslexia-friendly features incorporated into specific learning difficulties units.

The current researcher suggests that such features could be incorporated into mainstream schools with relative ease. Indeed, this has been the case in certain

schools (Pollock & Walker, 1994; BDA, 1998; Surrey EPS, 1999). However, how do these institutional features relate to the self-perceptions of the pupils? Firstly, the features listed are associated with increased academic success in dyslexic pupils (Pollock & Walker, 1994). As we have already seen, there is a close link between academic success, self-concept and self-esteem (see 3.2). Secondly, the ethos which permeates dyslexia-friendly schools is one of equality and respect for individual dignity, similar to what Beane & Lipka (1986) refer to as the 'humanistic' climate. As reported in Section 3.5, this type of climate has been associated with fostering more positive self-perceptions in pupils (Hoge et al. 1990). Although, admittedly, the unit group in the current research did exhibit various indicators of low self-concept and/or self-esteem, particularly in the interviews, it is suggested that such children bear what Edwards (1994) calls the 'scars' of dyslexia. That is, the experiences of the unit group whilst they were in mainstream education have tainted their current self-concept and self-esteem levels. This, of course, is supported by the contrasting reports which the unit group made about their unit experiences and their previous, mainstream experiences (see Chapter 7). It should also be noted that the largest proportion of children in the unit group (51%) had been attending their respective units for less than six months.

10.3 Teacher Awareness of and Provision for Dyslexia

As suggested in the previous section, there remains a critical factor in the equation relating to self-concept and self-esteem of children with dyslexia: the teacher. Although much of the evidence in the current research related to negative experiences with teachers, the current researcher suggests that there was also a significant amount of positive information, which should be utilised. In particular, the reader's attention is drawn to the responses of the unit group in describing the differences between the specific learning difficulties unit which they attended and their previous (mainstream) school (Chapter 7). More than half the children who responded to the question stated that they received more support, time and attention from their unit teachers than they had at their mainstream schools. Although many of the teachers in the units had had some kind of specialist training in dyslexia, specific learning difficulties or special educational needs in general, the current researcher believes that, in the future, elements of such training could be incorporated into initial teacher training. At

present, teacher training at both undergraduate and graduate level includes *some* input on special educational needs, particularly so since the DfEE's recent initiative: *Programme of Action: Meeting Special Needs*:

“New requirements for initial teacher training courses, which came into effect earlier this year, will ensure that all newly qualified teachers understand their responsibilities under the SEN Code of Practice, 'are capable of identifying children with SEN, and when appropriately supported are able to differentiate teaching practice.’” (DFEE, 1998, p.29)

It is in indicating how such requirements are to be met that the DFEE are particularly vague. This issue was not resolved in the most recent editions of the *Special Educational Needs: Update* publication, although the government did promise £30 million in capital support and £55 million in targeted support for 2000-2001 (DFEE, 2000a), and again, promised to provide more training for teachers in relation to special needs.

What is to happen to teachers who are already qualified? In the 1998 *Programme of Action*, the DFEE noted that:

“Some serving teachers are concerned about their developing role, particularly as a result of the increasing inclusion of children with SEN in mainstream schools. We are committed to ensuring that all teachers have the training and support they need to do their job well, and are confident to deal with a wide range of special educational needs. We will encourage all teachers to undertake continuing professional development in special educational needs throughout their careers – from induction to headship.” (DFEE, 1998, p.29)

It is hoped that such continuing professional development will eventually provide a cohort of teachers who can give to children with special educational needs the support, time and attention they need, within mainstream education. With specific reference to dyslexia, the publication also promised “research to assist teachers to identify and help children with dyslexia” (DFEE, 1998, p.38). This research has

recently been published by the DFEE as *Specific Learning Difficulties (Dyslexia): Effective Identification, Assessment and Intervention Strategies* (DFEE, 2000b), a free publication available to all schools and teachers.

Given that we can reasonably expect teachers in the near future to be sufficiently able to identify children with dyslexia reliably, what provision can be made once identification has taken place? As discussed in Section 1.5.1, research has shown that the most effective teaching programme for a dyslexic learner is one that is *multi-sensory*; that is, a programme which utilises most or all of the senses (Miles & Miles, 1999). Such a programme can even be implemented with pre- or beginning readers, so that it becomes an *alternative* rather than a *remediation* approach. However, as always seems the case in education, there are a multitude of problems which could prevent such developments from taking place. Firstly, as Osmond points out, mainstream teachers are already under considerable stress:

“It is, or course, easy to criticise. Teachers in mainstream schools face formidable problems. Invariably they are over-stretched in classrooms so full of children that it is difficult to give those without special problems the attention they deserve, let alone those with disabilities such as dyslexia. Usually they have not been trained in... coping with children with dyslexia.” (1993, p.102)

Added to this, there is also the problem of expense in implementing multi-sensory approaches for all dyslexic (or ‘at-risk’ for dyslexia) children. Many children with dyslexia, even those who have been formally identified, are still taught how to read, write and spell in exactly the same manner as their non-dyslexic peers, usually because it is considered too expensive to consider other options (Osmond, 1993; Miles & Miles, 1999). This is in direct contradiction to the government’s recent inclusion initiatives (DFEE, 1997, 1998).

10.4 Promoting and Planning for Inclusion

As mentioned in the previous chapter (Section 9.5), and touched upon in the previous section, the promotion of inclusion is a central requirement of the effective education

of and maintenance of self-concept and self-esteem in children with dyslexia. To recap, authors such Booth et al (2000) have suggested that true inclusion means that issues are addressed on three dimensions: *cultural*, *policy* and *practice*. In looking at how changes can be affected, it is necessary first to expand upon the principles of inclusion and inclusive practice.

Defining 'inclusive education', as with defining dyslexia, is a necessary first step if the concept is to be correctly understood. In general terms, the concept can be defined simply as "extending the scope of ordinary schools so they can include a greater diversity of children" (Clark et al. 1995, p.v). However, other definitions have broadened the term to include notions of human interaction (Forest & Pearpoint, 1992) and values in the community (Uditsky, 1993). The Centre for Studies of Inclusive Education have articulated the principles of the inclusive philosophy as follows:

- "all children have the right to learn and play together";
- "children should not be devalued or discriminated against by being excluded or sent away because of their disability or learning difficulty";
- "there are no legitimate reasons to separate children for the duration of their schooling. They belong together rather than need to be protected from one another". (CSIE, 1996, p.10)

Several researchers (e.g. CSIE, 1996; Tilstone et al. 1998; Ainscow, 1999) have made attempts to describe the 'ingredients' of thriving inclusive schools. Giangreco (1997) has provided one of the most concise and useful set of common features, shown in Table 44:

Common Features:
Collaborative teamwork
Shared Framework
Family involvement
General educator ownership
Clear role relationships among professionals
Effective use of support staff
Meaningful Individual Education Plans (IEPs)
Procedures for evaluating effectiveness

Table 44. Common features of thriving inclusive schools (adapted from Giangreco, 1997).

It is clear that the shared common features of such 'inclusive' schools are relevant to *policy* and *practice*, but what of *culture*? In the current research there were indicators of feelings of exclusion that were clearly based on cultural influences. For example, the Kelly Grid data highlighted the children with dyslexia's significant association of the constructs 'good at reading' with 'intelligent' (see 7.6). It is suggested that such construct associations are culturally determined, and that as we develop, we increasingly define ourselves by what is expected in the culture in which we live. This is a key element of the social developmental process known as *socialisation* (Schaffer, 1996), in which we learn the role which we are expected to play in life, and the rules by which we play it. Most children in Western society are brought up with the 'need to achieve' ethos, part of which is the association between reading and intelligence. The difference between dyslexic and non-dyslexic children is the way in which these associations are interpreted as part of the self-definition process. Children with dyslexia, because of their problems with reading, place greater emphasis on this association than non-dyslexics (as displayed in the current research), and as such their self-concepts and levels of self-esteem suffer.

What changes need to be made to the cultural values which are apparent in our society? Buck and Inman (1995) have suggested that in order to develop to a point

where we can truly call ourselves an 'inclusive' society, we need to adopt a set of core democratic values, including:

- respect for reasoning and respect for truth;
- fairness, co-operation and acceptance of diversity;
- justice, freedom and equality;
- concern for the welfare of others;
- peaceful resolution of conflict.

In the context of the current research, the acceptance of diversity is paramount to affecting change about how literacy is viewed. Of course, we want all our children, dyslexic or non-dyslexic, to become literate, and to make their own unique contribution to society. What needs to be changed is the way in which we so commonly associate failure or difficulties in literacy with a lack of intelligence, as has been evidenced in the current research. The most important message that educators can pass on to children (and, in some cases, adults), is that diversity is a natural part of life's rich pattern. Thus, differences in learning styles, personality, literacy, social, behavioural and emotional development and all the other areas that become so important in the school years should be viewed as just that: *differences*. Not *deficiencies*.

In affecting cultural change within our society, however, we come across a unique problem. For many years, it was assumed that cultural values were transmitted from parents to children. This is part of what is known as 'the nurture assumption' (Harris, 1998). Indeed, prominent anthropologists such as Margaret Mead have even *defined* the term 'culture' in this way, as "the systematic body of learned behaviour which is transmitted from parents to children" (Mead, 1959, p.i). When culture is viewed in this way, a model for change, whilst perhaps problematic to implement, is still relatively simple: we change the way in which the current generation thinks, and this in turn affects the cultural values which the next generation adopt. However, groundbreaking research in recent years has shown that we may have been particularly naïve when it comes to the transmission of culture, ignoring one of the most important factors: *other children*. Judith Rich Harris has suggested that:

“Children are not incompetent members of the adults’ society: they are competent members of their own society, which has its own standards and its own culture... it adopts the majority adult culture to its own purposes and it includes elements that are lacking in the adult culture... Children cannot develop their own cultures... except in the company of other children.” (Harris, 1998, p.199-200)

Such a theory has important implications for the current research. In terms of looking at changes in cultural values, it suggests that the children with dyslexia’s association of the constructs ‘good at reading’ and ‘intelligent’ may have been transmitted by their peers, as well as by the current adult culture. Consequently, change would need to be effected at this level.

10.4.1 Affecting Change in Childhood Culture

The notion of childhood culture transmission carries a great deal of intuitive logic, especially when we consider what has been shown in the current research. If cultural transmission were simply a case of adults passing information and behaviour down to children, we would be unable to account for some of the most consistent and reliable facets of childhood, such as the games children play:

“When children play in the street... they engage in some of the oldest and most interesting of games, for they are games tested and confirmed by centuries of children, who have played them and passed them on, as children continue to do, without reference to print, parliament, or adult propriety.” (Harris, 1998, p.201)

In the current research, other consistent facets of childhood were uncovered, most notably the appearance of teasing and bullying. As unpleasant as it may be, bullying is one of childhood’s most reliable features; children with differences, or difficulties, or whatever we should call them, are teased and bullied. And yet we, as adults, do not teach our children that bullying is desirable in our culture. In fact, we actively attempt to stamp out bullying wherever it rears its ugly head. The current researcher suggests

that the answer to the question of how this phenomenon still exists in schools lies in childhood society and culture.

How might we attempt to affect change in childhood society so that children with dyslexia (and other learning difficulties) are not ostracised? In many ways, the different 'intervention and prevention' methods outlined in this and the previous chapter are in fact unrecognised attempts to bring about exactly such change. For instance, in discussing anti-bullying programmes and circle-time activities (see 9.3 and 9.6.4), we are in fact describing ways in which children can be encouraged to change their society for the better. However, the success of such 'programmes for change' are often dependent on the qualities of the teacher(s) who leads and co-ordinates them (therein lies the irony of the notion of child-created cultures!). As suggested previously (section 9.2), teachers exert an important influence on the children they teach, not necessarily as role-models, but as leaders and counsellors. To illustrate this point, the reader is referred to research by Harris (1998), who carried out observations of classrooms and schools where the teachers displayed such qualities:

“One of the things that characterise these exceptional classrooms is the attitude the students adopt toward the slow learners among them. Instead of making fun of them, they cheer them on. There was a boy with reading problems in one of Rodriguez’s classes and when he started making progress the whole class celebrated.” (Harris, 1998, p.246)

10.5 Dyslexia, Self-Esteem, Delinquency and Crime

Now that we have considered the different methods of prevention and intervention which are available in the light of the current research, it is appropriate to take a cursory glance at the 'worst case scenario'. Unpleasant, even disturbing, as this may be, it is a necessary activity, for it reminds us of what can happen if we fail our children. However, it also inspires us, as educators, to make that extra effort in ensuring that all children have the best chance to succeed and become valued members of society.

The literature contains many separate reports on the links between dyslexia and crime, self-esteem and delinquency and so on. Being dyslexic has frequently been considered to be a starting point in maladaptive behaviour for many unfortunate individuals, as Osmond states:

“...the emotional problems commonly associated with dyslexia – frustration, rejection, inadequacy, poor self-confidence and low self-esteem – can easily underpin deviant behaviour and even lead on to crime” (1993, p.109-110).

However, this is by no means a recent revelation, and as early as 30 years ago, authors such as Critchley warned of similar fates for children with dyslexia:

“There may be an aggressive type of reaction from dyslexia which may show itself in a variety of ways, among them temper tantrums, destructiveness, and fighting. Alternatively, there may be day dreaming and playing dumb - the child so to speak retreating into himself... As the child gets older it is to be expected that the behaviour disorders will take a more unsocial or anti-social form. Truancy is rather a phenomenon of secondary school age and much of the same applies to stealing, pathological lying and the drift into the more destructive gang activities. Deep emotional disturbances, quite severe depression, fantasy building and other neurotic manifestations, though apparently not very common, are nevertheless a possibility... The ease with which dyslexic teenagers slip into crime demands serious notice.” (Critchley, 1970, p.120)

The links between dyslexia and crime in particular have received empirical attention over the last fifteen years (see Osmond, 1993, for a review). Although, as is often the case in such research, direct causality cannot be implied, we are left with a disturbing trend.

The links established between self-esteem and anti-social behaviour in the literature also make for worrying reading. Kaplan et al. (1986) presented longitudinal studies

linking self-esteem and certain types of juvenile delinquency, the significance of which is astutely recognised by Mruk:

“The basic idea is that people, especially adolescents, almost always strive to achieve some degree of self-esteem. They typically do so through peer acceptance (being worthy enough to be accepted by a group) and by demonstrating some degree of success (being competent at some valued activity, such as academics, student government, or sports). When the environment denies or limits socially acceptable avenues that would ordinarily lead to positive ways of finding self-esteem, the need for self-esteem remains a constant, which means that the individual becomes more open to alternative routes, even if they are not socially sanctioned.” (1999, p.96)

In engaging in delinquent activities, such as petty crime, adolescents are finding a pathway to self-esteem, both through success or competence at certain skills (albeit negative ones), and through the acceptance such activities bring from like-minded others. One of the roles that educational practitioners (and others) must play, therefore, is in supplying such individuals with alternative routes to self-esteem, as has been outlined in this and the preceding chapter.

Self-Concept and Self-Esteem in Dyslexia: Final Thoughts

Until Edward's (1994) book *The Scars of Dyslexia* and Riddick's (1996) *Living With Dyslexia*, very little attention had been paid to the personal, emotional and social aspects of dyslexia. A few research articles, scattered over the last three decades, had touched upon the issues, but in no great depth (e.g. Rosenthal, 1973; Thomson & Hartley, 1980; Thomson, 1990, in Riddick, 1996). It is the current researcher's belief, therefore, that an investigation of the kind performed in the current research is long overdue.

Drawing together the main themes of the research for this final chapter has been an exhausting but enjoyable task. In particular, revisiting the research results on self-concept, self-esteem and dyslexia has proved particularly fulfilling, as has taking another look at the literature surrounding these areas. The process of creating this thesis has also proved a demanding task because, in many ways, the research is entirely unique. Although the education and psychology research literature is littered with examples of special educational needs being linked to self-esteem and/or self-concept issues, virtually nothing has been attempted that specifically relates to dyslexia, and certainly no investigation in this area has been conducted on the scale of the current research. Also, much of the research literature on special educational needs and self-esteem or self-concept proves to be rather vague and often contradictory – self-esteem and self-concept are often used interchangeably, and are treated as global concepts, with little depth. *Children with special educational needs have low self-esteem*, or *children with special educational needs have poor self-concepts*. It is not so simple. As with a child's academic ability, self-esteem and self-concept are multi-dimensional and hierarchical. So, just as a particular child can have different levels of ability for English, Maths, and Science, he/she has a corresponding self-concept and self-esteem level (multidimensionality). Likewise, just as particular subjects can carry more importance for one child than for others, the corresponding areas of the self which relate to these subjects hold more influence in the overall feeling of worth hierarchy. Of course, the way in which self-concept and self-esteem

are structured means that if certain areas are deficient, the overall sense of self-concept or self-esteem (or both) is affected. This is directly in line with what was found in the current research, and with the most widely accepted theories of self-concept and self-esteem.

What, then, are the main themes which can be drawn out from the current research? In terms of answering the research questions posed earlier in this thesis (section 3.8), it is possible to say that the experience of suffering from dyslexia produces deficits in the self-concepts and self-esteem of children. The question of domain specificity is not, as perhaps was assumed in past research, as simple and clear-cut as either a global *or* a specific deficit. What has been shown in the current research is that, as the current researcher proposed, the specificity of the learning difficulties experienced by the children with dyslexia produced very specific deficits in their self-concept profiles, displayed eloquently in the data from Marsh's (1990) Self-Description Questionnaire. However, as outlined in the previous paragraph, the specific domains of the self-concept contribute to a hierarchy, and, this being the case, other areas were also affected, namely self-concept related to school (since this domain is undoubtedly the product of self-concept for reading, self-concept for maths etc.) and total self (since this domain represents the 'sum value' of all the other domains). It is this line of reasoning that the current researcher believes enhances the unique value of the current research, since not only is this the first time such systematic research has been carried out on a large scale, but is also the first time that the structural nature of the self has been extrapolated in detail in a practical context.

The relationship between the learning difficulty encountered and the subsequent effect on the self-concept and self-esteem of a child is not, however, a simple matter of *x causes y*, and in presenting the research question related to school placement as a factor, the current researcher was hoping to elucidate an important external factor: the child's environment. Most of the data showed differences in the self-concept and self-esteem levels of children with dyslexia attending mainstream education, and children with dyslexia attending specific learning difficulties units. This was particularly evident in the quantitative data, which is pleasing because such data are not open to subjective interpretation, and so the current researcher's expectations were not a factor. The differences shown, which on the whole supported the notion that the

environment children at specific learning difficulties units experience is more healthy in 'self' terms, provided strong evidence that we, as educational practitioners, can and should make a difference in the personal development of children with dyslexia. By adopting changes in culture, policy and practice, the environment in which children with dyslexia find themselves in can be more adaptive to self-development. Given the links established between the self and academic achievement, this notion is particularly significant.

Despite the differences found between the two groups, there were general issues which applied to all the dyslexic participants. In particular, the interview data provided enlightening information about bullying, feelings of exclusion and other areas worthy of deep concern. The implications drawn out from such data add another unique slant to the research. Dyslexia, whilst similar in many ways to other learning 'disorders', is also, paradoxically, completely different from anything that can be observed in the special needs spectrum. Consequently, whilst the intervention and prevention methods outlined in the previous two chapters are applicable to many children with different difficulties, they are also wholly focussed on the special case provided by dyslexia. The inclusion debate, early identification and so on are familiar territory in any discourse on special needs. However, within any of these areas, dyslexia is still unique, with its own particular problems and proposed solutions. The suggestions made for self-concept and self-esteem enhancement, attributional training and the institutional features of schools have been shaped by the data uncovered in the current research, and, as such, are tailored directly to the needs of the dyslexic child.

11.1 Directions for Future Research

Research is best conceptualised as an infinite, never-ending process. In this way, research in the present inevitably builds upon work which has been done previously. For instance, the current research built upon the work of Rosenthal (1973), Thomson and Hartley (1980), and Riddick (1996). Likewise, the answers sought and found in a piece of research inevitably lead to other questions being asked. In the current research there were several of these questions, all of which warrant investigation in the future.

First and foremost, there needs to be replication of the results of the current research. As was described in Chapter 6, reliability and validity are crucial factors in the evaluation of research, and accurate replication is one of the most common methods of establishing both of these. Also, in cases such as the current research, where firm implications for educational practice have been made, replication increases the likelihood of these being accommodated by the government, LEAs, schools, and teachers. This is considered to be particularly pertinent in the context of the current research, since it is unique.

In terms of future research directly related to the current research, there are several possibilities. Initially, the current researcher would like to extend the work that has been done to include instruments and methods that were not included in the current research because of constraints of time, availability and focus. These include parental interviews, teacher interviews and observation of children with dyslexia in class. The parental interviews would add another perspective to the research, and allow for further triangulation. Further, they would allow for more accurate information about the identification, assessment and diagnosis processes that the children went through. The teacher interviews, aside from allowing for further triangulation, would be used to obtain information about the children with dyslexia's self-esteem-related behaviour in school. This data would be complemented by observational data.

A further possibility for future research is a learned helplessness experiment involving children with dyslexia. A great deal of the data from the current research indicated the possibility of learned helplessness in children with dyslexia (see Chapter 8), and there are reports in the literature that learned helplessness is a problem in children with reading difficulties. Indeed, as Butowsky and Willows (1980) state, "The parallels between... learned helplessness and... children with reading difficulties are striking" (p.410-411). In the experimental situation, a group of children with dyslexia and a control group of 'normal' children matched on reading-age levels would be given reading tasks that are at a significantly higher level than their reading ability, and therefore 'impossible'. Participants would be informed verbally each time they failed to give a correct response. Research has shown that four repeated failures is enough to induce helplessness (Witowski & Stiensmeier-Pelster, 1998), and therefore, participants would receive four 'impossible' reading tasks. At post-test, both groups

would be given reading tasks that were appropriate for their age, and therefore 'solvable'. It is hypothesised that the dyslexic group's performance in this post-test phase would be significantly lower than the reading-age-matched control group.

Given the contrasting results of the SDQ-1 and SDQ-2 questionnaires, another possibility for future research would be an investigation of self-concept and self-esteem in children with dyslexia which centred on Key Stage 2/3 transition. In particular, it would be interesting to examine in depth how the transition from primary to secondary education, with the differences in class and school size, climate and organisational implications it brings, affects children with dyslexia's perceptions of themselves as learners. In terms of data collection, it is envisaged that a selection of the instruments used in the current research would be suitable. These could be incorporated into longitudinal design, in which a group of children with dyslexia were followed through the final stages of Key Stage 2 and into the early stages of Key Stage 3, with interviews conducted at the end of the research period to probe how the transition affected the children. It is suggested that this would be a particularly relevant investigation, since the area of Key Stage 2-3 transition is lacking research, and that which does exist usually concentrates on continuity in the curriculum (e.g. Kaur, 1998; Jones, 1999).

11.2 Dyslexia: A Century of Change

In the 100 years or so that dyslexia, or one of its many 'guises' that we have come to know, has been part of our educational system, a great deal has changed (Miles & Miles, 1999). Ways of defining, identifying, assessing, diagnosing and teaching in relation to dyslexia have all undergone scrutiny and refinement. At present, we are in a situation where the prognosis for children with dyslexia, if identified early enough and subjected to appropriate educational intervention, is very good. Many dyslexic individuals achieve their full potential and go on to become invaluable contributors to society. Of those who do not, it is never too late, and programmes of intervention for dyslexic adults are rapidly emerging (BDA, 1998).

The pattern which research into dyslexia has followed is intriguing. Although much of the work which has been done in the past century has been concerned with

identifying and treating the difficulties these children experience, there is an emerging body of research, of which the current investigation is an example, that is more focused on wider issues of personal, social and emotional consequences. Such research, far from being an afterthought to the dyslexia debate, is now becoming recognised as a central factor in understanding what Osmond (1993) calls 'the reality of dyslexia'. In attempting to understand how dyslexia, or indeed any learning difficulty, affects children from day-to-day, other than just academically, we are coming a step closer to truly helping them. It is the current researcher's contention that in the near future, dyslexia will be seen not as a learning *difficulty*, or *deficiency*, but as learning *difference*. As authors such as Davis (1994) and Riddick (1996) have suggested, children with dyslexia only experience difficulty because the way in which we teach is not matched to the way in which they learn. It has taken a long time to arrive at this line of thinking, but increasingly, dyslexia is being viewed as the manifestation of spatial, as opposed to verbal, patterns of cognition (see Davies, 1994).

Until we arrive at a point where the dyslexic condition can be identified and treated (in the sense of altering our teaching so that it suits their learning style) early and reliably, so that dyslexia no longer presents as a 'problem' for children, research such as that described in these pages will always be necessary. Children with dyslexia do face considerable difficulty in our education system, and their self-concept and levels of self-esteem suffer. This is not just, nor is it necessary. Educators have a duty to give to children the best possible start in life, an important dimension of which is ensuring that they value and respect themselves:

"Dyslexia should rather be seen as an extraordinary dimension of otherwise ordinary life. It has an undeniable downside in terms of the extra effort invariably required, but a positive aspect as well in terms of creative ability. Above all, children with dyslexia more than others should not be rushed through their childhood. What they need, as one wise teacher once put it, is 'a good listening to'. And as another declared: 'Children have but *one* childhood. It should not be wasted'." (Osmond, 1993, p.122)

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Appendix 1
Sample Consent Letter



**I. M. Marsh Campus
Barkhill Road
Liverpool
L17 6BD**

Tel: 0151 231 5335

XX/XX/XX

Dear parent/guardian

I am writing to ask for your permission that your child to be involved in a research project that I am running as part of my PhD at John Moores University. The study will be looking at self-esteem in children with dyslexia, and how having a specific learning difficulty can affect a child's self-confidence, how they feel about themselves and so on. To investigate this, I have devised some interview, questionnaire and experimental materials to use with children with dyslexia. Your child's involvement will be as a 'control subject', part of a 'normal' group whose results can be compared to those with dyslexia.

Many thanks for your time and cooperation.

Your sincerely

Neil Humphrey

I would/would not (delete as appropriate) like my child,
_____ to participate in the study on dyslexia.

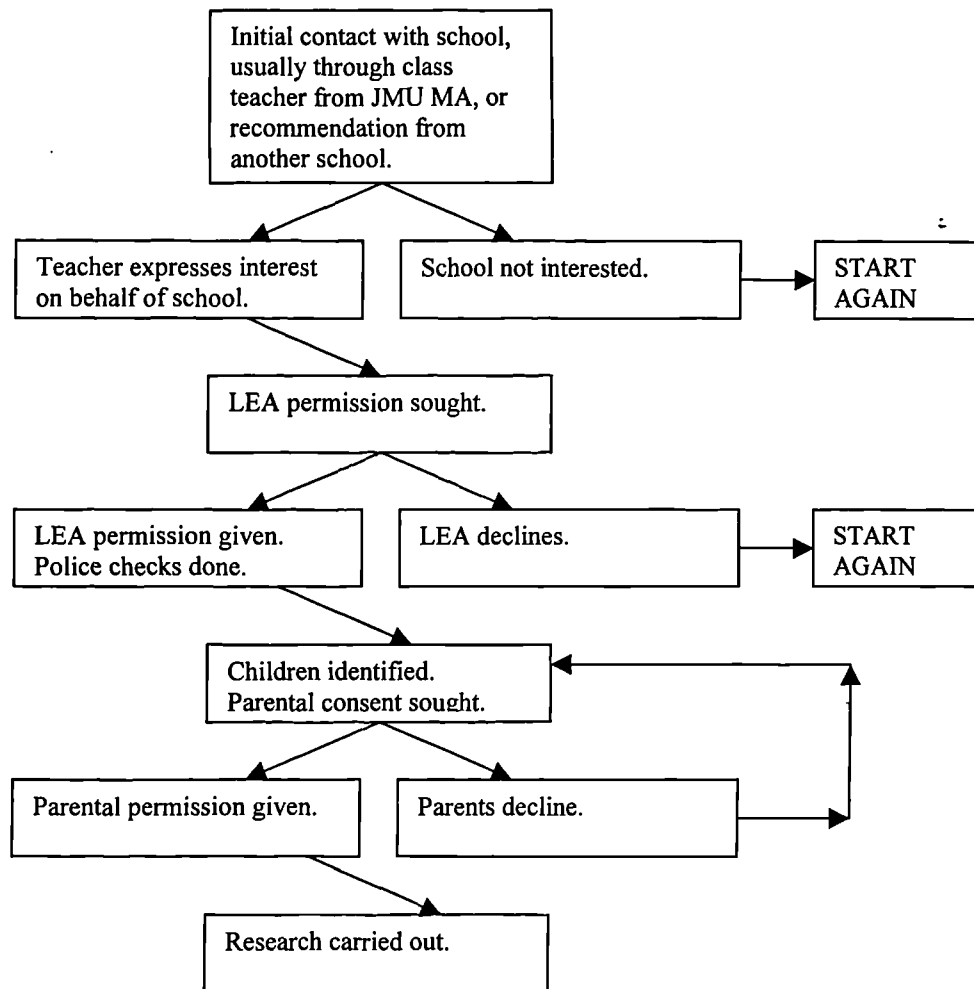
Signed, _____ (parent/guardian)

Neil Humphrey B.A. Hons Department of Special Educational Needs

I M Marsh Campus, Barkhill Road, Liverpool, L17 6BD Telephone: 0151 231 5335 E-mail: ecsnhump@livjm.ac.uk

Appendix 2
Process of Acquiring Participants

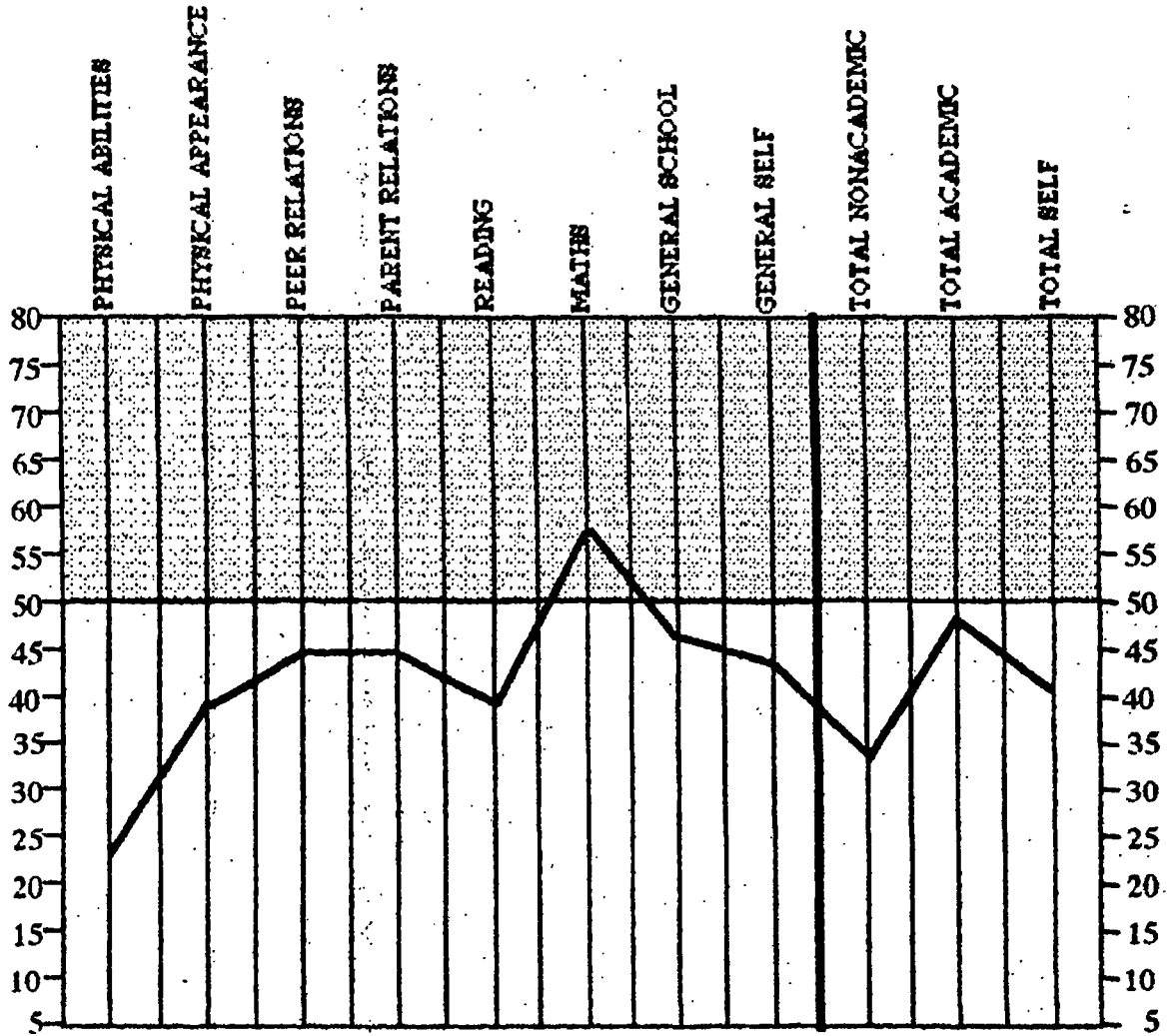
Process of Acquiring Participants



Appendix 3

Individual T-score Profiles for Pilot Sample

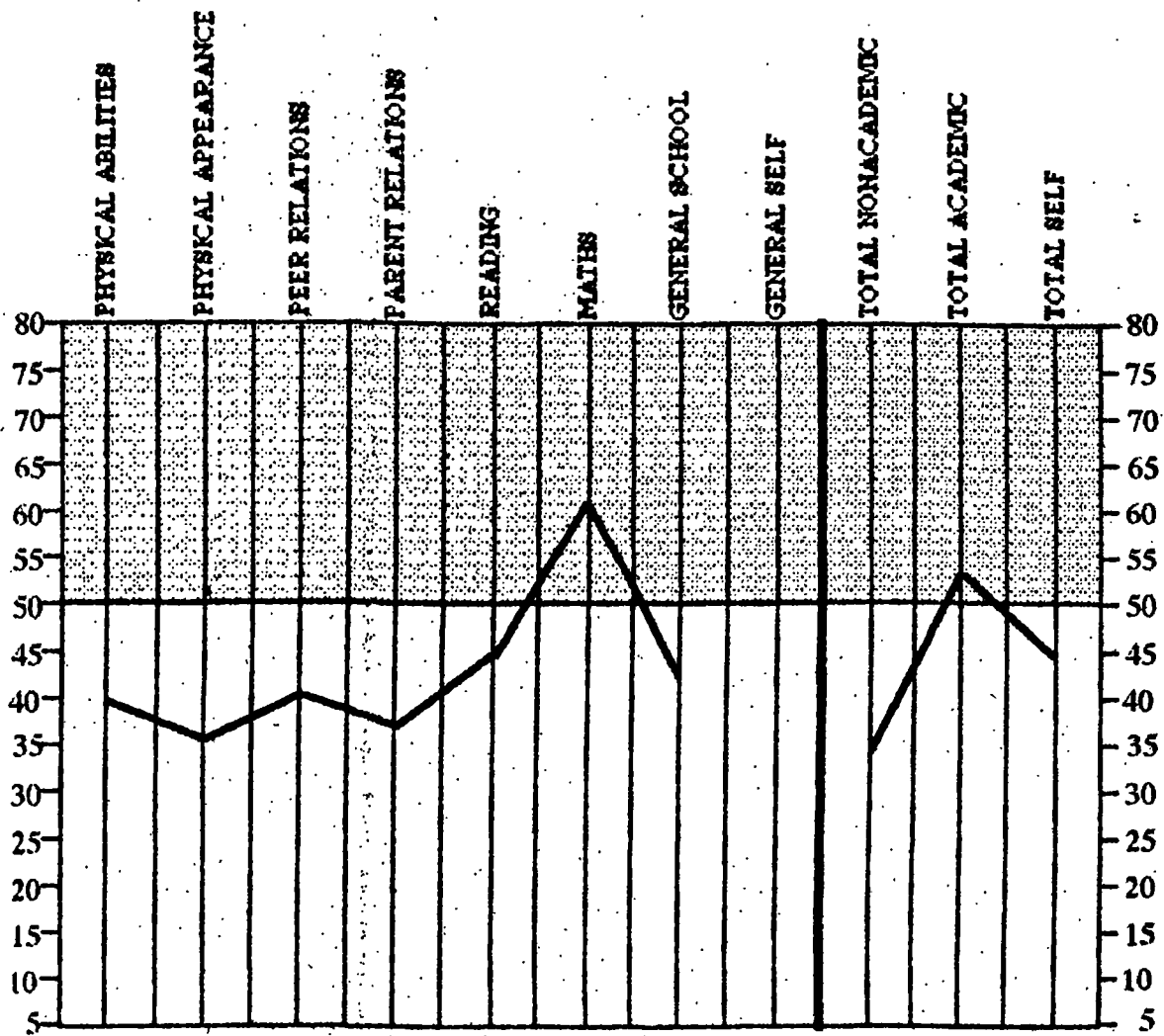
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	19	20	28	33	22	36	26	31	25	28	27
PERCENTILES:	2	17	27	24	17	68	38	21	7	41	20
T SCORE:	23	40	45	45	40	57	47	44	34	48	41

NAME: T
AGE: 12
SCHOOL: 4

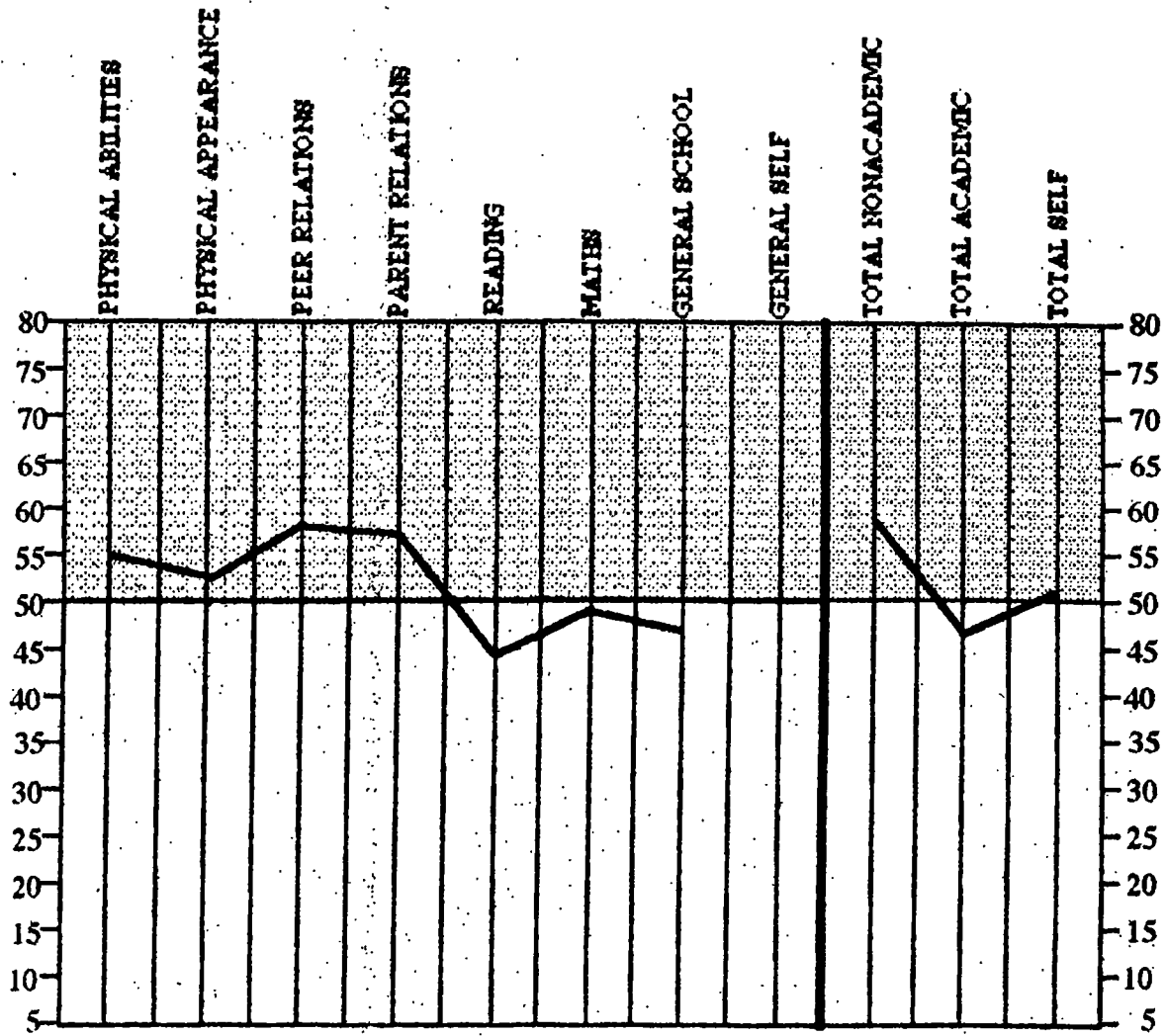
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	30	18	26	30	28	40	25	36	26	33	30
PERCENTILES:	17	13	18	11	28	90	22	N/A	9	57	30
T SCORE:	40	36	41	38	45	61	43	N/A	35	53	45

NAME: B
AGE: 8
SCHOOL: 3-

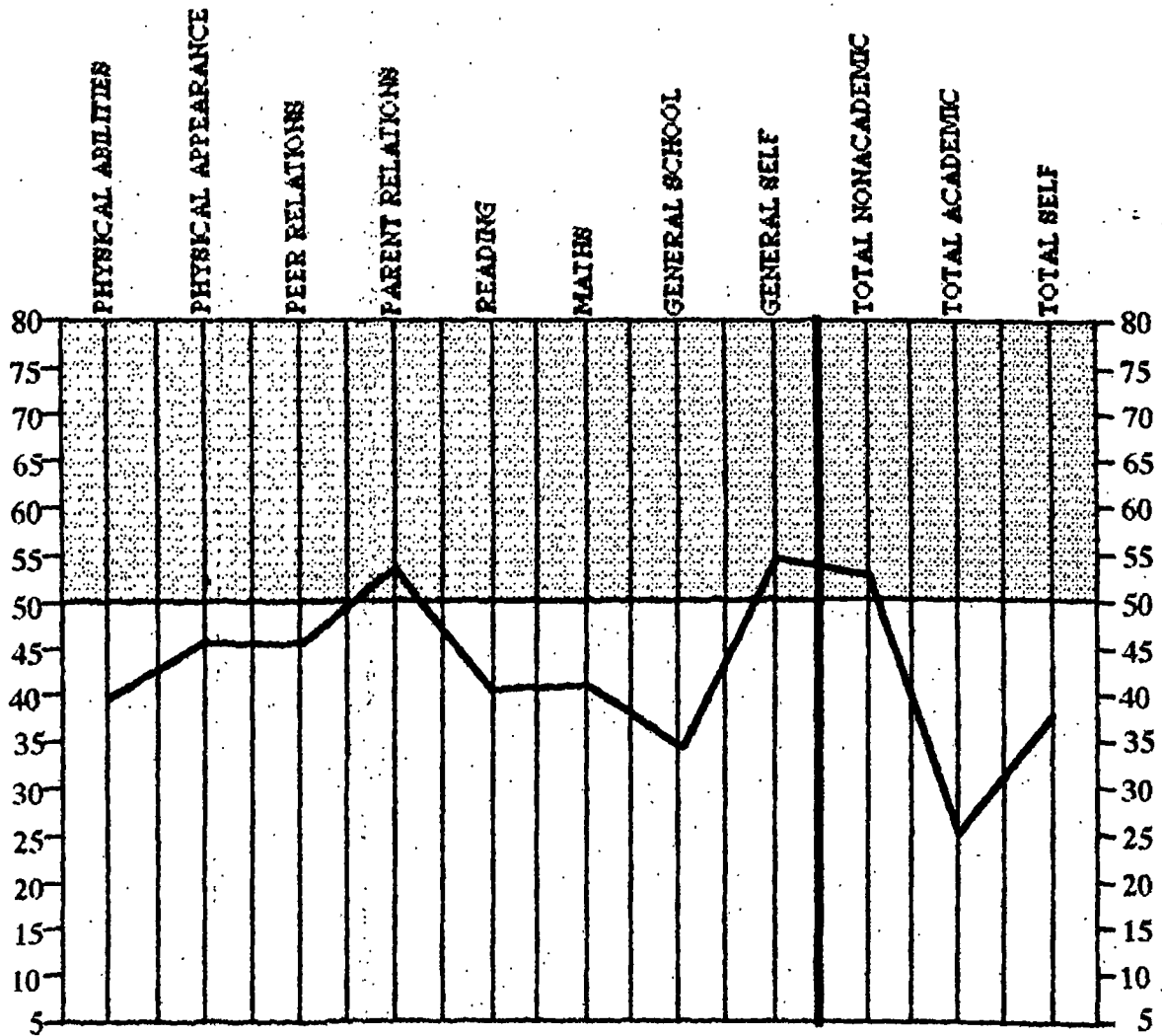
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RAW SCORES:	38	32	37	39	28	30	29	35	37	29	35
PERCENTILES:	57	59	74	67	28	40	34	N/A	75	37	54
T SCORE:	55	53	58	57	45	49	47	N/A	58	47	51

NAME: OO
AGE: 10
SCHOOL: 1 .

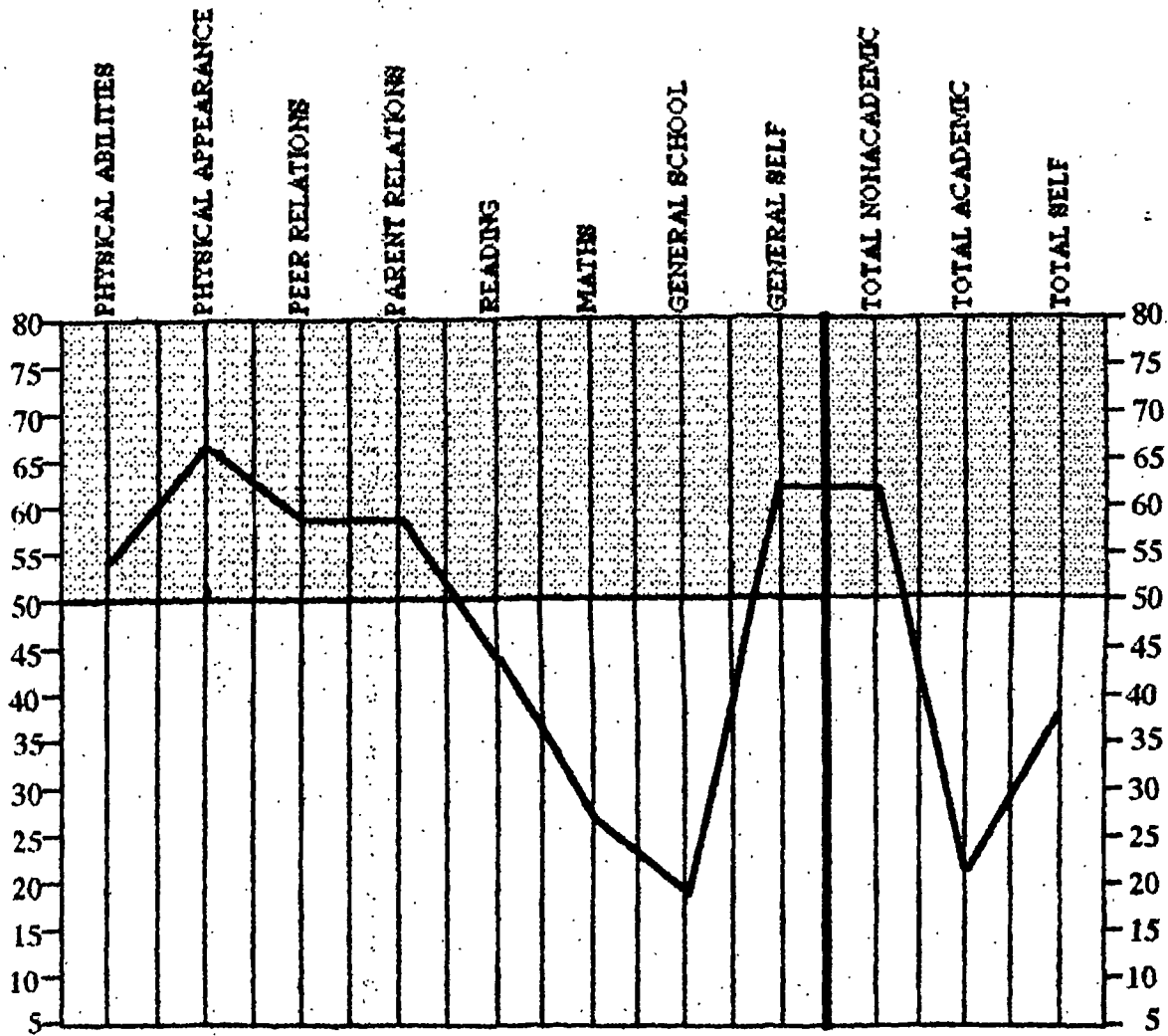
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RAW SCORES:	28	25	29	37	22	21	16	36	30	20	25
PERCENTILES:	14	33	31	51	17	20	7	63	57	3	11
T SCORE:	39	46	46	53	40	41	34	55	53	25	37

NAME: PP
AGE: 11
SCHOOL: 1-

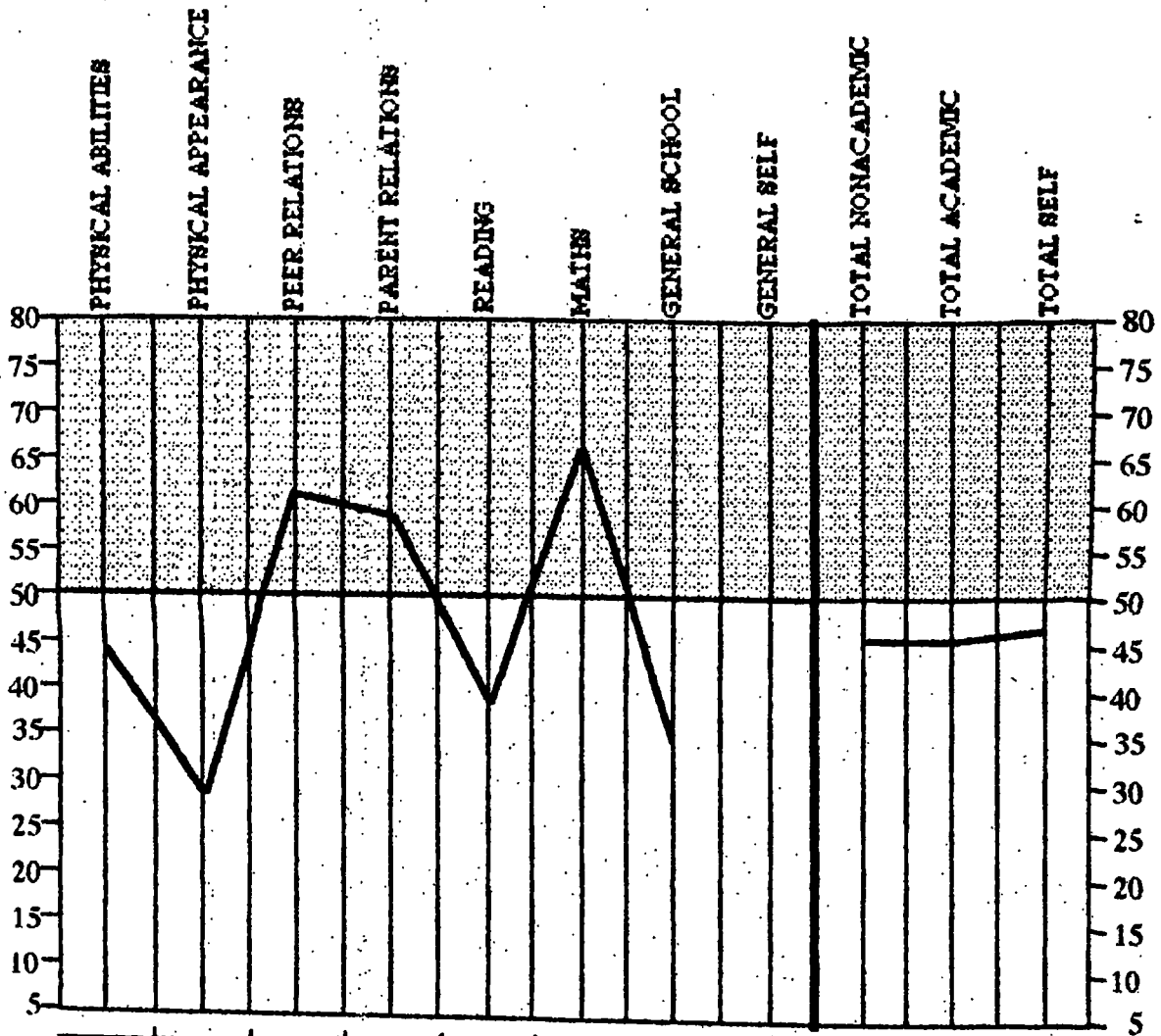
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	33	39	36	40	29	8	9	40	37	15	26
PERCENTILES:	60	94	79	89	29	1	1	96	92	1	15
T SCORE:	54	66	59	59	45	27	20	63	63	24	37

NAME: QQ
AGE: 11
SCHOOL: 1.

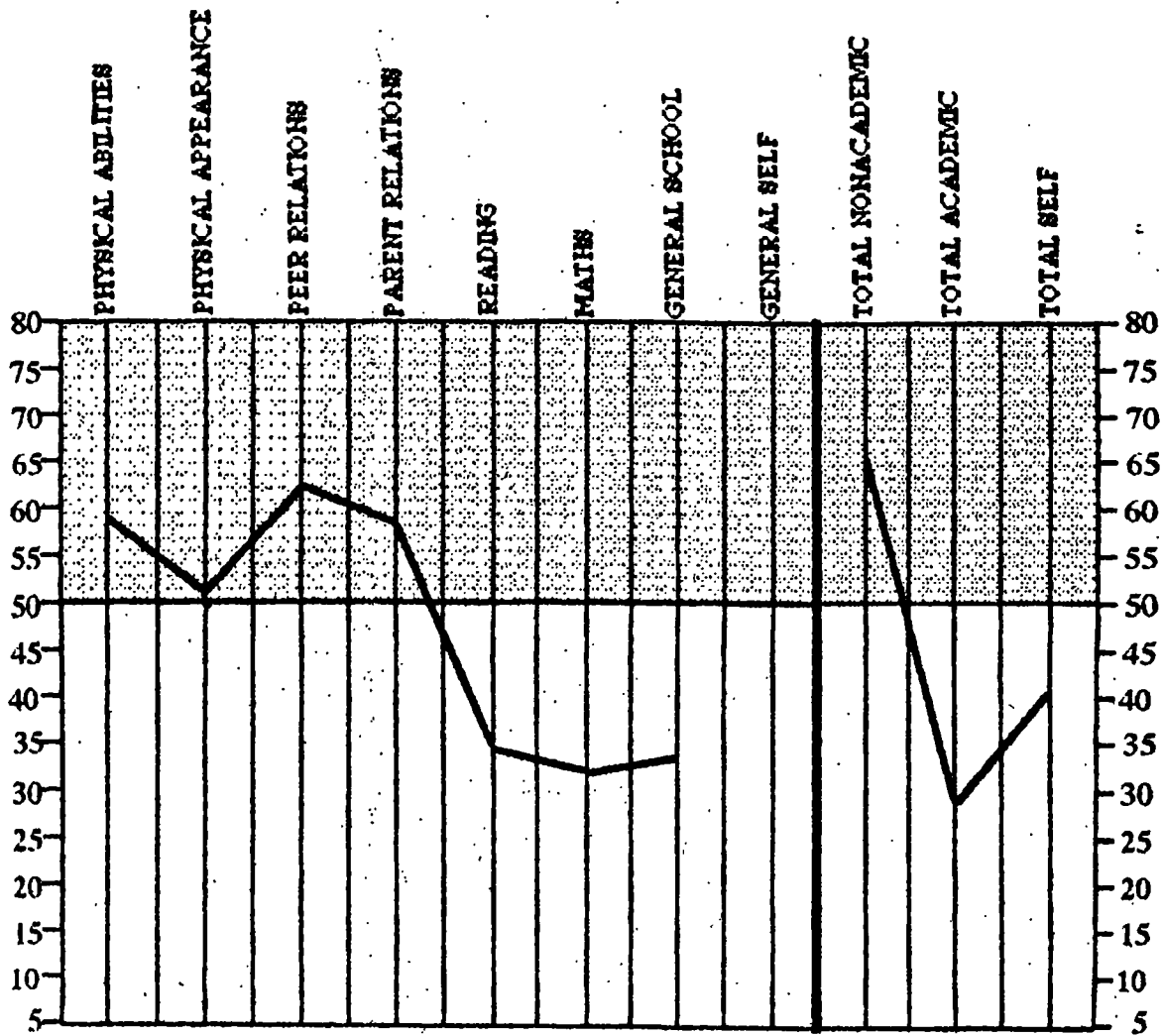
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	32	12	40	40	24	40	20	32	31	28	30
PERCENTILES:	24	3	94	86	17	90	8	N/A	37	31	37
T SCORE	44	29	62	59	40	67	36	N/A	46	46	47

NAME: A
AGE: 9
SCHOOL: 2-

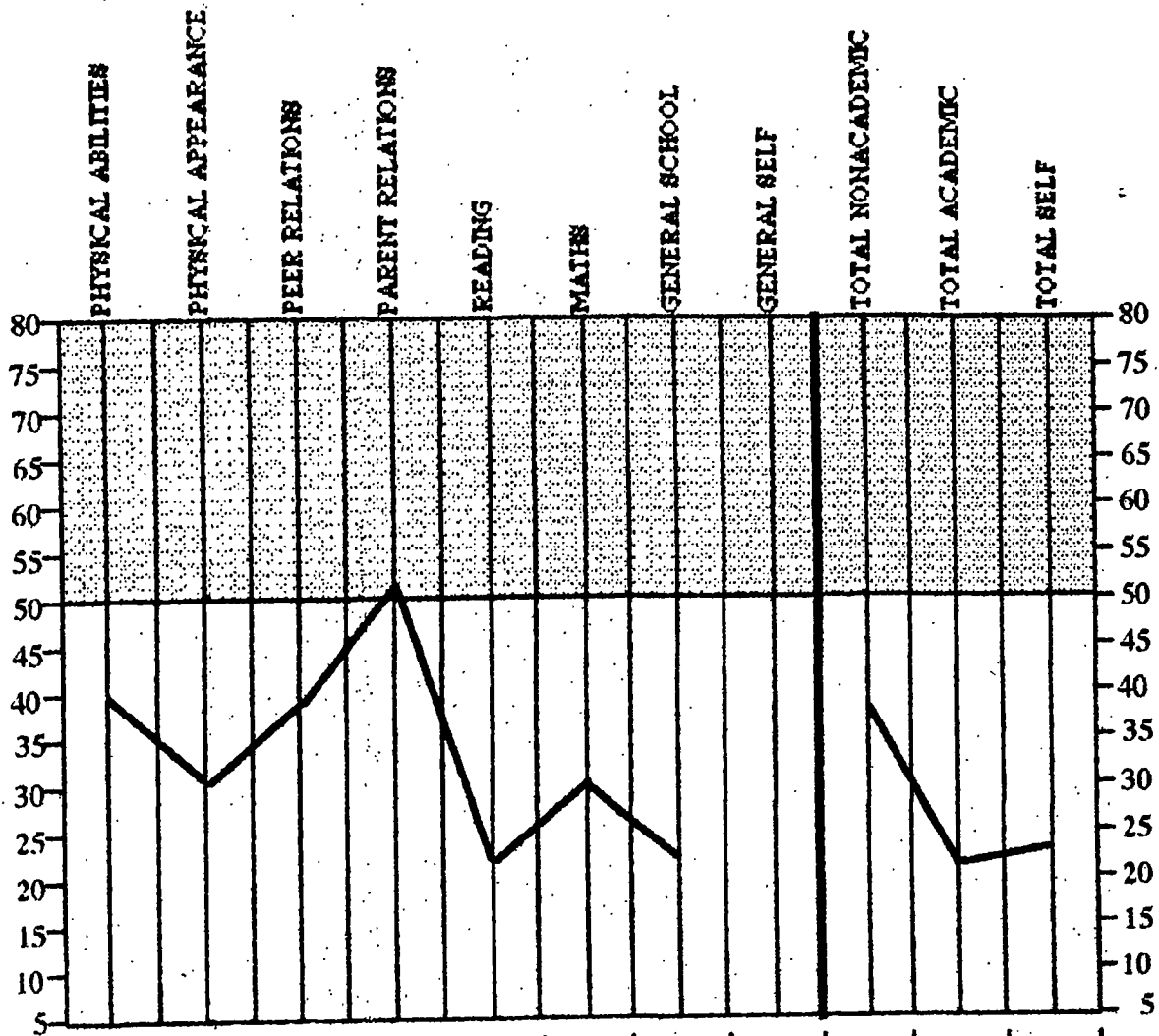
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	40	30	40	40	20	16	18	37	38	18	28
PERCENTILES:	87	50	94	86	9	7	5	N/A	82	4	18
T SCORE:	59	51	62	59	35	32	33	N/A	66	30	41

NAME: NN
AGE: 10
SCHOOL: 1

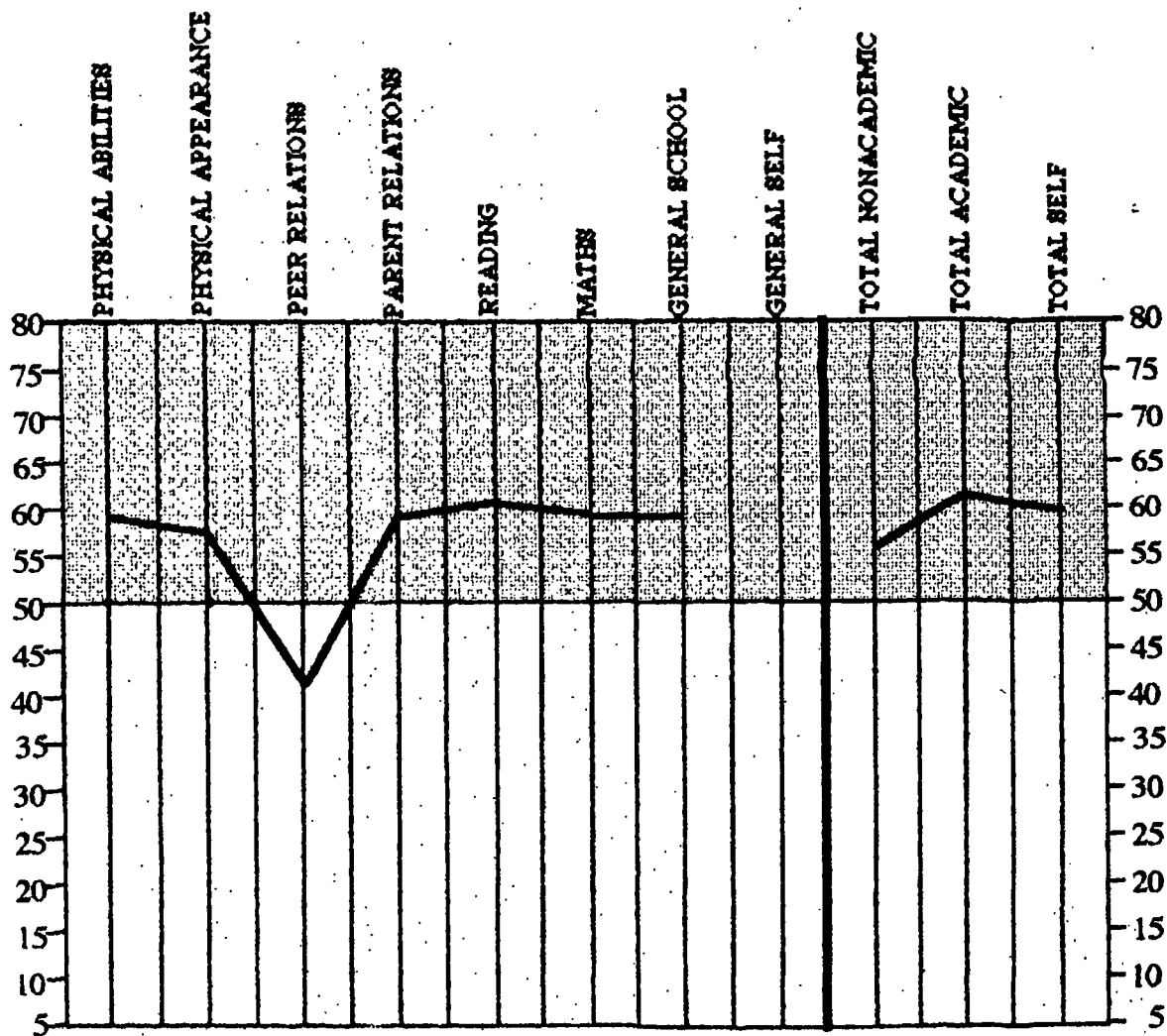
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	30	14	25	37	11	14	11	28	27	12	19
PERCENTILES:	17	5	15	49	2	5	1	N/A	12	1	1
T SCORE:	40	32	39	52	23	30	23	N/A	37	21	23

NAME: MM
AGE: 10
SCHOOL: U

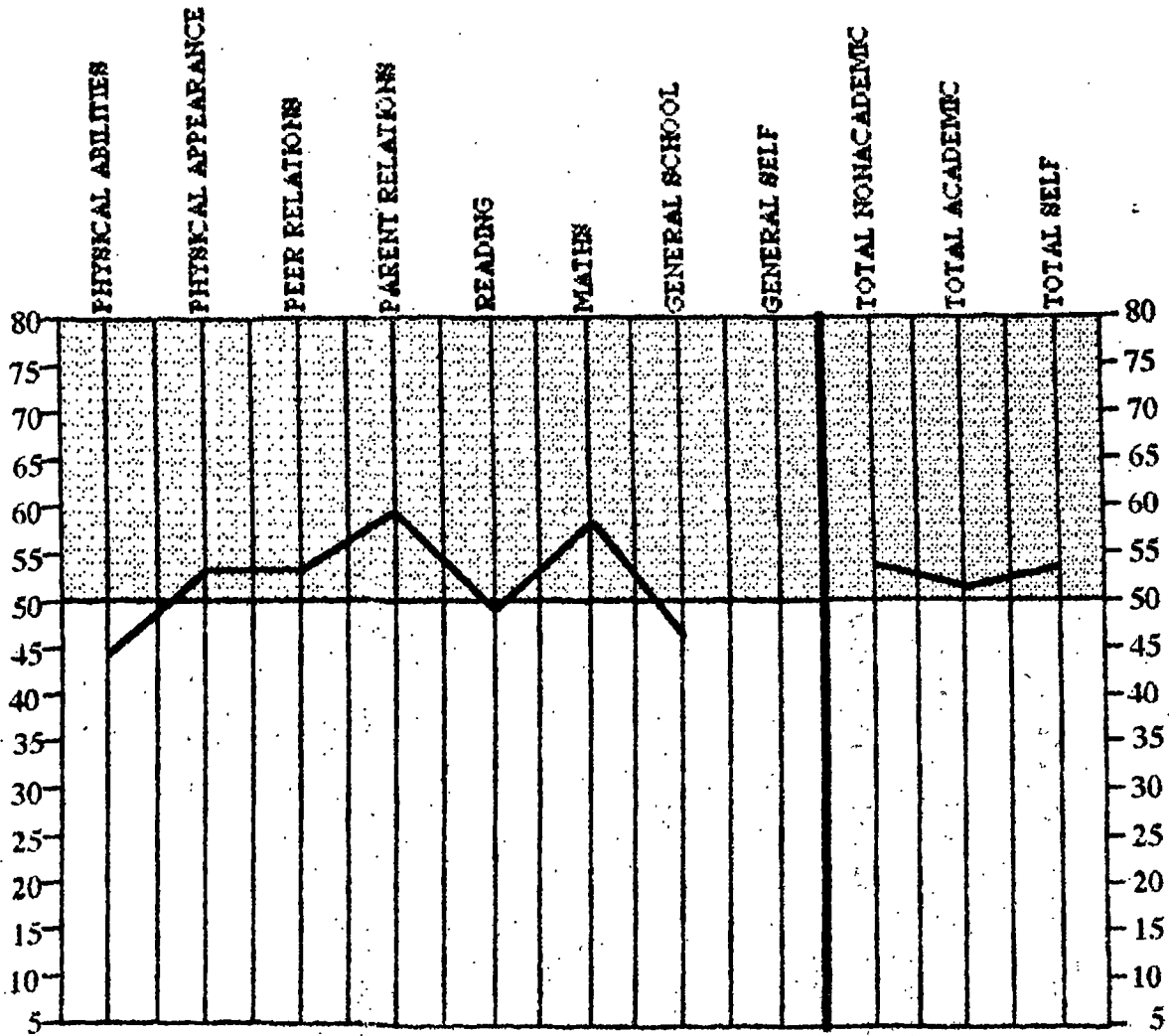
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	40	35	27	40	40	39	37	40	36	39	37
PERCENTILES:	87	69	21	86	93	77	80	N/A	67	91	81
T SCORE:	59	57	42	59	61	59	59	N/A	56	62	60

NAME: EE
AGE: 8
SCHOOL: 1

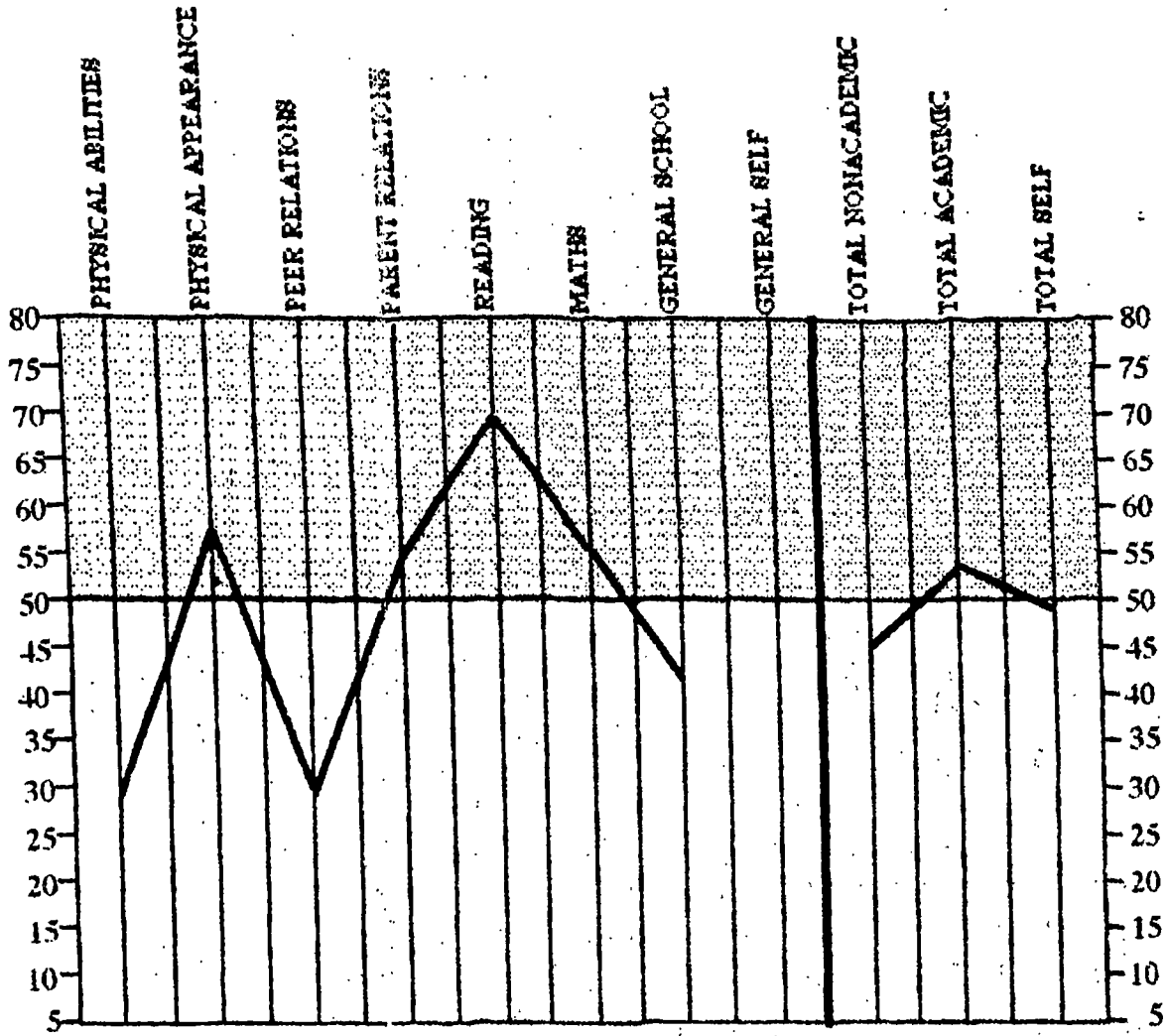
SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	32	32	34	40	31	37	28	37	35	32	34
PERCENTILES:	24	59	55	86	39	68	34	N/A	59	52	62
T SCORE:	44	53	53	59	49	57	47	N/A	54	52	54

NAME: DD
AGE: 8
SCHOOL: 1-

SELF-DESCRIPTION QUESTIONNAIRE 1 T-SCORE PROFILE



RAW SCORES:	24	35	18	38	37	36	25	36	31	33	32
PERCENTILES:	4	69	4	56	70	63	22	N/A	31	57	45
T SCORE	29	57	29	54	68	56	43	N/A	46	53	49

NAME: CC
 AGE: 9
 SCHOOL: 1 -

Appendix 4

Who Am I? Responses for Pilot Sample

'WHO AM I?' QUESTIONNAIRE RESPONSES

Participants were asked to give twenty statements about themselves that began with "I...."

CHILD QQ

1. I am a girl.
2. I like art, it is my favourite subject.
3. I like Brittany Spears.
4. I have a rabbit called Peter.
5. I like playing netball.
6. I will work hard.
7. I have a cat.
8. I like this unit.
9. I am good at reading.
10. I read Dick Kingsmith books.
11. I am on the Kingston programme.
12. I like made up stories.
13. I have two best friends.
14. I have a Nintendo 64.
15. I don't like science.
16. I don't like maths.
17. I like art.
18. I have read Springboard books.
19. I like Cleopatra.
20. I like my mum and dad.

CHILD MM

1. I am a boy.
2. I like Newcastle F. C.
3. I like Friday.
4. I am lazy.
5. I like going out on my bike.
6. I don't like school.
7. I like going to RampWorks.
8. I like music.
9. I like Stefan Eberts.
10. I wear glasses.
11. I live in a house.

(participant could not think of any more statements)

CHILD NN

1. I am big.
2. I've got big feet.
3. I can run fast.
4. I can throw a ball real high.
5. I have good friends.
6. I can climb trees.
7. I can jump.
8. I can play football.
9. I can read.
10. I can write.
11. I can talk.
12. I can walk.
13. I can feel things.
14. I can play.

15. I can give cheek.
16. I can run.
17. I can swim.
18. I can jump.
19. I can dive.

CHILD DD

1. I am good at maths.
2. I am 8.
3. I have a dog.
4. I like Liverpool F. C.
5. I am nearly 9.
6. I like maths.
7. I like going to literacy.
8. I have got a computer.
9. I like animals.
10. I like Easter.
11. I like going on holiday.
12. I like going to Blackpool.
13. I like my name.
14. I like my mam.
15. I like my friends.
16. I live in [ADDRESS]
17. I like going to the sweet shop.
18. I like going to the park.
19. I like taking my dog for a walk.
20. I like my mum and dad.

CHILD A

1. I am a boy.
2. I like Liverpool.
3. I am 9.
4. I like playing football.
5. I like P. E.
6. I have brothers and sisters.

(participant could not think of any more statements)

Appendix 5

MANOVA of Attribution Questionnaire for Pilot Sample

Analysis of Attribution Questionnaire

A multivariate analysis of variance was performed on the participants' ratings of the eight causes, using 2 x 2 factorial design (group x outcome), and failed to find a significant main effect of group (control or dyslexia) or outcome (success or failure) ($p > .05$). Individual, univariate analyses of variance were performed using the eight causal attribution ratings as dependent variables, and significant main effects of outcome (success or failure) on attribution of teaching quality ($F(1, 12) = 5.17241, p < .05$) (with participants who 'succeeded' attributing their outcome more to teaching quality than those who 'failed') and conditions at home ($F(1, 12) = 7.89474, p < .05$) (with participants who 'succeeded' attributing their outcome more to conditions at home than those who 'failed') were found. A significant main effect of group (dyslexic or control) was found for attribution of conditions at home ($F(1, 12) = 5.05263, p < .05$) (indicating that control subjects, more than dyslexic subjects, tended to attribute their outcome to conditions at home). Other univariate ANOVAs failed to find significant main effects of group or outcome for attribution of ability, difficulty of subject, difficulty of test, preparation, or interest in subject ($p > .05$).

Appendix 6
Interview Schedules

Interview Schedule

Children (Main)

Warm-Up Items

1. What do you like to do outside of school?
2. What is your favourite subject at school?

Dyslexia

3. What do you understand by the word 'dyslexia'?
4. What difficulties do you have at school
home
elsewhere
because of your dyslexia?
5. When did you first start to have problems in these areas?
6. Who first told you that you were dyslexic?
7. What did they tell you that it meant?
8. How did you feel when you were told that you were dyslexic?
9. Do you ever dream or daydream about not having dyslexia?

General Self-Concept and Self-Esteem

10. What is your favourite feature about yourself? Why?
11. What is your least favourite feature about yourself? Why?
12. Do you feel that there are many or few things that you would like to change about yourself? What are these things?
13. When do you feel most confident in yourself (and why?)
14. When do you feel least confident in yourself (and why?)
15. Do you find it difficult to talk in front of other people? If yes, why?
16. Choose a good word to describe yourself.
17. Choose a bad word to describe yourself.

Peer Relations

18. Do other children notice the problems you have sometimes?
19. Do they tease you? If yes, what do they say/do?
20. Do you feel excluded by others because of your dyslexia? If yes, describe in what ways you feel excluded.
21. Do you wish that you could swap places with someone else in your class? Who? Why?
22. Do other children tease you because of the special attention you receive?
23. If you are ever teased, how do you react?
24. Do you try to explain your difficulties to other children? What do you say? How do they react?

Teacher-Pupil Relationship

25. In what ways (if at all) does your class teacher try to help you overcome your difficulties?
26. Did the teacher at your previous school understand your difficulties?
27. Has any teacher ever made you feel upset or angry because they did not understand your difficulties?
28. Has any teacher ever told you that you are lazy, or stupid, or messy, or any other demeaning words?

Academic Self-Concept and Self-Esteem

29. Do your difficulties ever make you feel lazy, or stupid, or messy?
30. What is your favourite subject at school? Why?
31. What is your least favourite subject at school? Why?
32. Do you think that having dyslexia changes whether you like/dislike certain subjects?
33. Compared to your classmates, do you think you are less, more, or about the same level of intelligence?

34. How important is your schoolwork in comparison to the rest of your life?
35. How happy are you with your schoolwork compared to other things in your life?
36. Does having dyslexia change the way you see yourself at school?
37. If you could improve one aspect of your schoolwork, what would it be?

Interview Schedule

Children (Unit)

Warm-Up Items

1. What do you like to do outside of school?
2. What is your favourite subject at school?

Dyslexia

3. What do you understand by the word 'dyslexia'?
4. What difficulties do you have at school
home
elsewhere
because of your dyslexia?
5. When did you first start to have problems in these areas?
6. Who first told you that you were dyslexic?
7. What did they tell you that it meant?
8. How did you feel when you were told that you were dyslexic?
9. Do you ever dream or daydream about not having dyslexia?

The Unit

10. How long have you been coming to the unit?
11. What sort of work do you do at the unit?
12. How does this differ from the work you did at your previous school?

General Self-Concept and Self-Esteem

13. What is your favourite feature about yourself? Why?
14. What is your least favourite feature about yourself? Why?
15. Do you feel that there are many or few things that you would like to change about yourself? What are these things?
16. When do you feel most confident in yourself (and why?)
17. When do you feel least confident in yourself (and why?)
18. Do you find it difficult to talk in front of other people? If yes, why?
19. Choose a good word to describe yourself.
20. Choose a bad word to describe yourself.

Peer Relations

21. Do other children notice the problems you have sometimes?
22. Do they tease you? If yes, what do they say/do?
23. Do you feel excluded by others because of your dyslexia? If yes, describe in what ways you feel excluded.
24. Do you wish that you could swap places with someone else in your class? Who? Why?
25. Do other children tease you because of the special attention you receive?
26. If you are ever teased, how do you react?
27. Do you try to explain your difficulties to other children? What do you say? How do they react?

Teacher-Pupil Relationship

28. In what ways does your unit teacher try to help you overcome your difficulties?
29. In what ways (if at all) does your class teacher try to help you overcome your difficulties?
30. Did the teacher at your previous school understand your difficulties?
31. Has any teacher ever made you feel upset or angry because they did not understand your difficulties?
32. Has any teacher ever told you that you are lazy, or stupid, or messy, or any other demeaning words?
33. How does the treatment you receive from your unit teacher differ from the way your old teachers treated you?

Academic Self-Concept and Self-Esteem

34. Do your difficulties ever make you feel lazy, or stupid, or messy?
35. What is your favourite subject at school? Why?
36. What is your least favourite subject at school? Why?
37. Do you think that having dyslexia changes whether you like/dislike certain subjects?
38. Compared to your classmates, do you think you are less, more, or about the same level of intelligence?
39. How important is your schoolwork in comparison to the rest of your life?
40. How happy are you with your schoolwork compared to other things in your life?
41. Does having dyslexia change the way you see yourself at school?
42. If you could improve one aspect of your schoolwork, what would it be?

Appendix 7
Participant Details

Code	Place	Age	Sex	School	DOB
A	M		9 M		2 03/05/1990
B	M		8 M		3 24/02/1991
C	M		9 M		8 02/06/1990
D	M		9 F		8 20/06/1990
E	M		9 M		8 30/04/1990
F	M		8 M		8 10/07/1991
G	M		9 M		8 11/05/1990
H	M		9 M		8 08/01/1991
I	M		8 M		8 30/06/1991
J	M		9 F		8 12/04/1991
K	M		10 M		6 27/11/1987
L	M		11 M		6 08/08/1988
M	M		12 M		9 06/01/1987
N	M		11 M		9 27/08/1988
O	M		11 M		9 13/08/1988
P	M		12 M	10	11/07/1988
Q	M		10 M		8 27/09/1989
R	M		10 M		8 30/03/1990
S	M		10 F		8 01/11/1989
T	M		12 M		4 20/05/1986
U	M		14 M		9 02/10/1985
V	M		13 M		9 03/06/1986
W	M		13 M		9 03/11/1985
X	M		13 F	10	23/11/1985
Y	M		13 M	10	13/07/1986
Z	M		13 M	10	11/08/1986
AA	M		15 M		6 06/08/1983
BB	M		14 M		6 10/10/1985
CC	S		9 M		1 23/03/1990
DD	S		8 M		1 12/06/1991
EE	S		8 M		1 02/05/1991
FF	S		9 M		7 17/08/1990
GG	S		9 M		7 13/07/1990
HH	S		9 M		7 14/06/1990
II	S		9 M		7 10/08/1990
JJ	S		9 M		7 15/06/1990
KK	S		9 M		7 04/03/1990
LL	S		9 M		7 09/05/1990
MM	S		10 M		1 23/04/1989
NN	S		10 M		1 08/07/1989
OO	S		10 M		1 21/01/1989
PP	S		11 M		1 12/03/1988
QQ	S		11 F		1 16/06/1988
RR	S		11 M		5 17/05/1988
SS	S		12 M		5 01/02/1988
TT	S		12 M		5 13/02/1988
UU	S		11 M		5 30/04/1988
VV	S		11 M		5 22/02/1988
WW	S		11 M		5 26/08/1988
XX	S		11 M		5 04/07/1988
YY	S		11 M		5 20/10/1987

ZZ	S	12 M	5 19/07/1986
AA1	S	11 M	5 15/03/1988
BB1	S	13 M	5 26/07/1986
CC1	S	15 M	5 06/03/1985
DD1	S	13 M	5 08/08/1986
EE1	S	13 M	5 31/03/1986
FF1	S	14 M	5 03/06/1985
GG1	S	13 M	5 03/03/1986
HH1	S	14 F	5 04/07/1985
II1	S	14 M	5 13/05/1985
JJ1	S	13 M	5 27/04/1986
KK1	S	14 M	5 18/02/1986

Appendix 8

Key to Headings for Lawseq Checklist

Key to Lawseq Headings

- SD = Makes self-disparaging remarks
- B = Is boastful
- T = Timid in new situations
- AS = Avoids situations which may be stressful
- R = Asks for help and reassurance constantly
- P = Continually asks if he/she is liked/popular
- F = Remains on the fringe of a group
- A = Apathetic in learning situations
- DD = Daydreams a lot
- AW = Avoids work even when risking teacher displeasure
- Bl = Blames others
- Re = Reluctant to assume responsibilities