Issues in dyslexia support: diagnosis, attitudes, and perceptions

This item was submitted to Loughborough University’s Institutional Repository by the/an author.

Additional Information:

- A Master’s Thesis. Submitted in partial fulfilment of the requirements for the award of Master of Philosophy at Loughborough University.

Metadata Record: [https://dspace.lboro.ac.uk/2134/27132](https://dspace.lboro.ac.uk/2134/27132)

Publisher: © Melanie Pope

Rights: This work is made available according to the conditions of the Creative Commons Attribution-NonCommercial-NoDerivatives 2.5 Generic (CC BY-NC-ND 2.5) licence. Full details of this licence are available at: [http://creativecommons.org/licenses/by-nc-nd/2.5/](http://creativecommons.org/licenses/by-nc-nd/2.5/)

Please cite the published version.
<table>
<thead>
<tr>
<th>AUTHOR/FILING TITLE</th>
<th>PoPé, M.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESSION/COPY NO.</td>
<td>040129418</td>
</tr>
<tr>
<td>VOL. NO.</td>
<td></td>
</tr>
<tr>
<td>CLASS MARK</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>date due:</th>
<th>28 OCT 1996</th>
<th>LOAN COPY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18 MAY 1999</td>
<td>14 JAN 2000</td>
</tr>
<tr>
<td></td>
<td>25 JUN 1997</td>
<td>24 FEB 2000</td>
</tr>
<tr>
<td>UNLESS DECALLED</td>
<td>UX 29066</td>
<td>14 MAY 1998</td>
</tr>
</tbody>
</table>
Issues in Dyslexia Support: Diagnosis, Attitudes, and Perceptions.

by

Melanie Pope

A Master's Thesis

Submitted in partial fulfilment of the requirements for the award of

Master of Philosophy of the Loughborough University of Technology


CONTENTS

Abstract. 1

Acknowledgements. 2

1. Introduction. 3

2. The problem in perspective. 5
   2.1 Dyslexia as a special educational need. 5
   2.2 Why is dyslexia an educational issue? 6
   2.3 Why is dyslexia different to other special educational needs? 9
   2.4 The implications for those working within the education system. 10

3. Review of the Literature. 11
   3.1 What is Dyslexia? 14
      3.1.1 The symptoms of dyslexia. 14
      3.1.2 Theories of aetiology. 18
   3.2 The relevance of aetiology to education. 22
      3.2.1 The concept of visual dyslexia. 25
      3.2.2 Auditory dyslexia. 27
      3.2.3 The use of subtypes. 28
      3.2.4 Motor-processing deficits. 34
   3.3 Subtypes of dyslexia. 41
      3.3.1 The concept of visual dyslexia. 41
      3.3.2 Auditory dyslexia. 44
      3.3.3 The use of subtypes. 46
      3.3.4 Motor-processing deficits. 48
      3.4 The educational implications of dyslexia. 52
      3.4.1 Language acquisition. 52
      3.4.2 The dyslexic reader. 54
      3.4.3 The problems of diagnosis. 56
      3.4.4 Dyslexic vs Generally Backward Readers. 60
   3.5 The ultimate problem. 60

4. Introduction to research. 61
   4.1 Dyslexia at secondary school. 61
   4.2 Dyslexia and the mainstream teacher. 64
      4.2.1 Teachers and attitudes. 66
      4.2.2 Pupils and attitudes. 68
   4.3 The aims of the research. 69

5. Method. 70
   5.1 Teachers' questionnaire. 70
   5.2 Pupils' questionnaire. 71

6. Results. 76
   6.1 Teacher questionnaire results. 76
      6.1.1 Section 1: About you as a teacher. 76
      6.1.2 Section 2: Statements. 94
      6.1.3 Section 3: Open-response questions. 103
      6.2 Discussion. 107
   6.3 Pupil questionnaire results. 113
   6.4 Discussion. 115
Abstract

It would seem that dyslexic pupils do not receive what is either an adequate or an appropriate education within mainstream secondary classrooms. Mainstream teachers do not know enough about the condition to enable them to make adequate provisions for dyslexic children within the classroom. An examination of the literature concerning the syndrome revealed a variety of theories of aetiology, procedures for diagnosis, nomenclature, and other issues surrounding the subject within an educational context. This must inevitably result in much confusion for those working with dyslexics in an educational environment, who are, primarily, teachers.

Surveys were carried out to determine the attitudes of secondary teachers towards their dyslexic pupils, and to find out how such pupils perceive their teachers. It was found that teachers felt that they did not have enough knowledge about dyslexia; the general confusion felt about the issue was reflected in many of the very mixed responses to questions. The dyslexic pupils appear to feel that they are treated differently by teachers than other pupils are, which possibly reflects the fact that the commonly perceived stereotypes of the syndrome are held by teachers.

The overall conclusion is that the education system as a whole needs to be held directly responsible for the education of dyslexic pupils, meaning that training for teachers is mandatory, and that the education of dyslexic children needs to be made into whole-school and LEA policies, to ensure that all teachers and all schools are able to carry out their responsibilities to these children.
Acknowledgements

Thanks must go to Lis Stock and Sandra Shaw-Pearce for not only helping with the administration of my surveys, but also for their interest in my work; to Mr. A. Birch for his continued support; to Miss L. Holliday, for her continued interest and help with my progress since leaving school, without whom the teachers' survey would have been invalid; and to Mrs Edgar for allowing me to disrupt her lessons.

Many thanks to Jim Hough, for suggesting that I have a go at research in the first place; and to Peter King for his support over the last two years.

I must also thank Kate and Dave Hampton-Davies for their much appreciated support during this year, especially Kate, for her cheerfulness amidst my despair; and thanks to Paul, for the encouragement and for having faith in me.

Finally, many thanks to my supervisor, Ron Hinton, for his advice, support, encouragement, words of wisdom, and the constant supply of anecdotes throughout the last year.
1. Introduction

Dyslexia: does it exist, or is it just another word for a middle-class slow learner? Is it just the same as any other learning difficulty, or are all dyslexic children of above-average intelligence? These are some of the questions and misconceptions that abound around a subject which, over the hundred years since it was first recognised, is still no closer to an absolute definition. Yet dyslexia is a special educational need which occurs in nearly every classroom, which will confront mainstream teachers every day, maybe several times in different pupils.

In the writer's experience, such day-to-day contact with dyslexic pupils does not automatically equip teachers with the skills required to help such children to overcome their difficulties in the classroom; rather, the opposite is true, in that teachers generally seem to know very little about the syndrome, about how it affects children and learning, and what the implications for the education of dyslexic children are. This results in teachers burying their heads in the sand when it comes to making provisions for an appropriate education for dyslexic children; the prevailing attitude appears to be that dyslexic children will be of at least average, but more likely above-average intelligence, which means that they are capable of understanding and coping with the demands of mainstream lessons; and that any specific aspects of their disability will be catered for by the designated 'special needs' staff. In reality, dyslexia is not frequently regarded as a special educational need (except possibly in its most severe forms, and often not even then!) by mainstream subject teachers. This attitude has obvious negative consequences for the education of dyslexics. Educational progress often tends to be poor in dyslexic children, inappropriate and irrelevant remedial support is administered, and young dyslexic adults leave school with very little to offer in the way of educational record, qualifications and
self-esteem. The prospects for many dyslexic children, who are otherwise very able, can be extremely bleak, due entirely to the poor quality of education they have received.

The research and subsequent literature on dyslexia has been extensive over the last century; yet the scenario for the education of dyslexic children appears to have changed little, merely because developmental dyslexia, as a syndrome in its own right, often cannot be satisfactorily proven to exist in a child who is labelled as having 'learning difficulties'.

The education system therefore continues to fail the 3-4% of children who are dyslexic, by not providing the opportunities for them to realise their educational potential. Teachers are the ones most likely to recognise the syndrome, purely by its most noticeable manifestation, that is in tasks requiring literacy skills. What must therefore be considered are the attitudes of teachers towards dyslexic pupils, where these attitudes originate, what knowledge teachers have about dyslexia, and how much of this information is correct, before any attempt can be made to remedy this situation. Until this is done, dyslexic children will continue to miss out on the education to which they are entitled.
2. The problem in perspective

Since the recommendations of the Warnock report (1978) and the introduction of the 1981 Education Act, all mainstream subject teachers will have found that the education of children with a wide variety of 'special' educational needs is now their responsibility. The report stated that as many as 20% of all children at any one time will have some sort of special educational need; in other words, around four children in every class will, at any one moment in time, require extra support in some form from the teacher. And at least one of these is probably dyslexic.

Developmental dyslexia is probably the most difficult special educational need to recognise. The slow learner, the child who has emotional or behavioural problems, the pupil with a history of environmental difficulties, are all recognisable in the mainstream classroom. But the dyslexic child may be one or all or none of these, and have other problems as well - all of which can make recognition and diagnosis seemingly impossible.

The Dyslexia Institute estimates that one in twenty-five people is dyslexic; but how many of these have been diagnosed as such, and are receiving adequate educational support? If any of the above examples of children with special educational needs could be dyslexic, how are teachers to recognise that this is the underlying root of these children's classroom difficulties?

It may be true that the average mainstream subject teacher is able to help the majority of children with special educational needs within her classroom without being fully aware of the circumstances surrounding that special need; but as one of these, dyslexia is unique, in that it is by nature very different to any other.
2.1 Dyslexia as a special educational need

As with any other type of special educational need, dyslexia varies in its effect from one person to another. Dyslexia is a syndrome, meaning that there are a number of symptoms which manifest themselves in an afflicted person; not all symptoms will be present in every dyslexic, but a combination of any of them, in any degree of severity. This in itself makes diagnosis difficult enough, but the secondary effects of the problems caused by the dyslexia may lead to emotional and behavioural problems in the child, further increasing difficulty of diagnosis by masking one problem with another, and therefore also making teaching and assessment more difficult.

So what is dyslexia?

In order to recognise a dyslexic child, it is important to be aware of the range of symptoms exhibited by this syndrome. Miles (1974) describes these 'signs' of dyslexia as:

1. Discrepancy between intellectual level and performance in spelling.
2. Bizarre spelling
3. Confusion of 'b' and 'd' in either reading or writing or both
4. Difficulty in distinguishing between left and right
5. Difficulty in repeating polysyllabic words
6. Difficulty in repeating digits in reverse order, and other defects of short-term memory
7. Inability to do subtractions except with concrete aids
8. Difficulty in memorising mathematical tables
9. 'Losing the place' when reciting tables
10. A history of clumsiness, late walking or late talking.

Miles also points out that not all of these signs will occur in one child; but in his opinion, if there appears to be a discrepancy between the child's achievements and their 'intellect' with two or three other signs present, then the child is
dyslexic; "thus saying, in effect, that his educational difficulties have a constitutional basis".

Although this summary could be regarded as somewhat 'dated', having been written twenty years ago, and many (including the writer) might now disagree with his first, (which is, to Miles, the most fundamental) 'sign' of dyslexia, the remainder of the descriptions are still acknowledged to be the most obvious and accepted indicators of the syndrome.

The very nature of these symptoms makes diagnosis very difficult. The child who cannot spell, read very well or remember mathematical tables is more often than not a generally slow learner; while many younger children can confuse letters in reading and writing, and have problems with the verbal formation of polysyllabic words. It is because these symptoms can occur naturally as part of the learning process in young children who are not dyslexic that the problem of diagnosis occurs, often resulting in children being labelled 'slow and lazy' later on in their school careers, and relegated to remedial classes for the slow learner; or in being misunderstood until they reach an age where the problems can no longer be attributed to basic learning mistakes which are common in young children. In both cases, the child will have been completely misunderstood, at best receiving the wrong remediation; at worst, having their problems ignored throughout their education, at which the psychological and educational damage become irreparable. Yet purely from the limited evidence provided above, it can be seen that distinguishing the dyslexic child from the genuinely slow or lazy child can be difficult. The task is made increasingly difficult by the fact that dyslexics often find ways of disguising and therefore hiding their problems from the teacher, parents and other children, by adopting behavioural 'strategies' for ensuring that their literacy difficulties are not publicly recognised. So the child within the mainstream classroom with behavioural
problems could very well be a dyslexic, who misbehaves in order to seek attention, so as to be excluded from the class to avoid reading and writing; or because the child feels complete frustration and isolation, knowing he has a problem which no-one else seems to recognise and which he himself cannot understand. It is therefore crucial that a diagnosis of the underlying problem is carried out, so that educational provisions can be made according to the specific underlying problem, rather than scratching at the most apparent, yet purely surface problem of behavioural difficulties.

The examples given above help to illustrate why it is so difficult to diagnose dyslexia in a pupil. However, more fundamental and problematic issues arise when the root cause of the syndrome is examined.

It is perhaps useful to look firstly at a medical definition of dyslexia. In 1968, the World Federation of Neurology issued the following as a definition of dyslexia:

Dyslexia is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and sociocultural opportunity. It is dependent upon fundamental disabilities which are frequently of constitutional origin.

Many recent researchers, the writer included, would question much of the above definition; what do the terms 'conventional instruction', 'adequate intelligence' and 'sociocultural opportunity' all mean? They each require their own definitions, and it would be argued that none of these are now regarded as necessary factors in the diagnosis of dyslexia (refer to Literature Review). Yet despite these objections, this twenty-six year old definition has not been adequately revised and updated according to findings of more recent research,
and despite some criticism, is still quoted in textbooks as the definitive neurological explanation of the syndrome. If reaching an adequate definition evades those researchers in medical, psychological and educational fields, it is not surprising that diagnosis is so difficult. How can we possibly diagnose a problem which we cannot adequately define?

One positive point for this definition is that it sets dyslexia within an educational context, albeit a rather narrow one. Therefore, despite the many other failings of this definition, and these include a failing within an educational as well as neurological context, the issue is addressed as an educational one. It is from the educational standpoint that the most immediate course of action can be taken. This is not to dispute the role of either the psychological or neurological research into the syndrome; but it is the parents and teachers who deal with these children every day, who are responsible for ensuring that they receive an adequate and appropriate education in order to become equipped with the everyday skills required for survival in the world outside school, and that they have the opportunities to achieve all the potential they possess.

2.2 Why is dyslexia an educational issue?

As can be seen from the definition by the World Federation of Neurology, dyslexia is a cognitive disorder that results in difficulty in learning to read; to be more specific, this definition can be widened to include learning that is in any way linked to organisational or literacy skills. It is not the case that the dyslexic has an inability to learn; it is the literacy system as a whole which defeats the dyslexic person, not just one aspect of it. As society and therefore the education system are reliant on literacy as a means of communication, every dyslexic child is disabled in the classroom by the very system of communication designed for
conveying information. It is therefore the education system which should be responsible for helping dyslexic children to overcome as many of their difficulties as possible.

An alternative term used to describe dyslexia is 'Specific Learning Difficulties' (SpLDs). This is a term used by educationalists, as it describes the syndrome within educational terms as a specific difficulty which can hinder some areas of learning. This term is used to make it clear within the education system that the very nature of dyslexia makes it a fundamentally different problem to any other which may be encountered within the classroom; whether it achieves this, the writer will question later. What this term does emphasize is the role of the education system in the remediation of dyslexia. It is the very system of literacy that the education system teaches and works by that is the downfall of dyslexic people; it is therefore the responsibility of that education system to ensure that such pupils receive an adequate and appropriate education, and acquire strategies for overcoming and dealing with problems with literacy.

Dyslexia therefore constitutes a very 'special' educational need which must be catered for by the education system.

2.3 Why is dyslexia different to other special educational needs?

The fact that dyslexia, in its educational context, is a specific learning difficulty indicates that it is unlike any other special educational need a teacher will encounter. This is because it is largely a genetically determined syndrome, which is cognitive: "This means that it results from some anomaly of mentation, and is not the result of any physical or structural defect in the brain" (Critchley & Critchley, 1978, p13). Any effects of dyslexia are therefore irrespective of a child's intelligence, behaviour, education and environmental factors. The only
other comparable cognitive disorder affecting language is autism - but this is more easily recognisable in spoken language, and from and early age, unlike dyslexia, which only becomes really apparent when the written language symbol comes into use (though there may be other signs in the young child, these are commonly ignored as part of the process of learning). For the dyslexic, problems can be physical as well as concerned with mental processing - the child may have problems just forming the shape of the letters on a page, or following the words on a blackboard, which are in addition to the problems encountered when it comes to actually understanding what it is they have written or read. This is not, however, to say that the dyslexic child cannot be intelligent - many dyslexic people are of above-average intelligence. Dyslexia merely complicates the process by which a person communicates and receives information through language, mainly in the written form, and therefore hinders learning. However, it must be acknowledged that dyslexic children may have other special needs at the same time - it is therefore important that all the needs are recognised, not just the one which is most apparent in the classroom situation.

2.4 The implications for those working within the educational system

The word 'specific' in the term SpLDs suggests a particular problem to be remedied, as opposed to a general difficulty that would manifest itself in slow learning in all skills and curriculum areas. There are many children who have dyslexia, who are of average or above-average ability, yet who are under-achieving academically because their poorly developed literacy skills are neglected or ignored by their teachers. There are also dyslexics of below-average ability who are not receiving help which is appropriate.
Accommodating dyslexic pupils into the mainstream classroom requires more than giving them more time to complete homework or coursework, and extra time for an examination. Language and literacy skills should be a cross-curricular issue already, as stated in the Bullock report (1975):

Every school should have an organised policy for language across the curriculum establishing every teacher's involvement in language and reading development throughout the years of schooling.

The Warnock report suggested that schools take this further by including pupils with special educational needs in mainstream classes as much as possible. The implications of this are not only that teachers are responsible across the curriculum for language development, but also across the spectrum of abilities. This includes pupils with special educational needs, and ultimately, those with dyslexia.

Most teachers assume that the majority of children are literate by the time they reach secondary school. Yet in reality, it is suggested that twenty per cent of the population across the curriculum achieve no more than functional literacy. In relation to primary school, the progress of pupils' reading is very poorly monitored. The implications of this are that poor readers from primary school will continue with inadequate literacy development throughout secondary school. This is particularly problematic for dyslexic pupils who have not received a formal diagnosis, as they will, on reaching secondary school, be relegated to remedial classes for 'slow learners'. This is unlikely to meet the specific needs of their disability. Teachers who do so are neglecting their own responsibilities to the child in question. A teacher's effectiveness can be measured by what the pupils learn from her - an effective teacher therefore has to be able to teach all the children she is confronted with - not just the 'normal' or 'average' children.
education as possible, and it is the job of every teacher to ensure that they receive such.

We think, know and learn through language; a deficiency in any area of language ability will affect our ability to perform these processes. No teachers can escape the responsibility of developing the language skills of the children they teach. Any child who does not master the most basic of literacy skills has not failed at school; he has been let down by his schooling. This is particularly true in the case of dyslexics. It is time all teachers faced up to their responsibilities to dyslexic children, to teach them the skills which are fundamental to the quality of their education, particularly at secondary level.

In order that teachers can do so, it is important that they are all equipped with information and knowledge about dyslexia. What must therefore be examined is how much information is available about the syndrome, and to what extent these information sources agree and conflict; and from this, how much teachers know about dyslexia, what their attitudes towards their dyslexic pupils are, and how such dyslexic pupils feel about their teachers. Only when an understanding of all the knowledge and feelings of both parties in the teacher-dyslexic pupil relationship is reached can efforts be made to improve and build upon them, for the benefit of the education of dyslexic children in every school.
3. Review of the Literature
3.1 What is Dyslexia?

Developmental dyslexia has always been a contentious issue in the many situations where it is significant - medicine, neurology, education and psychology, to name some of the more prominent. This is reflected in the vast amount that has been written on the subject over the past hundred years. It is the opinion of this particular writer that dyslexia, as perceived as a learning difficulty, is very different to any other - in its very nature, in the way it is perceived by others, the way it is approached within such literature, and subsequently the way it is treated by various parties in society. It is important, therefore, to begin by examining why this condition should be so different to any other.

Often the first, and generally the best place to begin when discussing a learning difficulty is to define what that difficulty is. In the case of dyslexia, this provides the first and most fundamental problem of the discussion - because there is no singular, concrete definition which is agreed upon by neurologists, psychologists, educationalists and others alike. Indeed, even within each individual field there appears to be no definition which is entirely appropriate. This is not to say that there is no definition of dyslexia - it must be acknowledged that research into defining what dyslexia is has been going on for just over a century. The most universally accepted definition is the one proposed by the World Federation of Neurology (1968):
Developmental dyslexia is:

A disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and socio-cultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.

Critchley first quoted this definition in 1970; as late as 1978, he continued to regard this as being "although not perfect ... a good working definition" (Critchley & Critchley 1978, p7). The last line is useful as it makes the important distinction between acquired dyslexia and developmental dyslexia, which although similar in characteristics, are syndromes which have different causal factors; indeed, there is a distinction in that acquired dyslexia can be medically identified. It is significant that more contemporary texts continue to quote this definition; however, many of the writers now challenge the content, implications and assumptions it makes (Critchley & Critchley, 1978; Newton, Thomson & Richards, 1979; Young & Tyre, 1983; Stanovich, in Snowling & Thomson, 1992, amongst others). Objections to this definition are twofold; the first is that it is an exclusionary definition, that is to say that only by excluding factors do we arrive at a diagnosis of dyslexia, as opposed to adding up factors, the usual method of diagnosing a condition; and secondly, the terms used within this definition, that is 'conventional instruction', 'adequate intelligence' and 'socio-cultural opportunity' are themselves subjective, and therefore require further definition in order to render the definition of dyslexia workable. A further criticism must be that dyslexia is not just a difficulty with learning to read; the definition therefore fails to note the many other difficulties that accompany the manifestation of the syndrome.

However, as Snowling (1987) points out, and rightly so, this definition is still regarded as the most absolute - because no-one has re-written the definition
in a form which is acceptable to everyone. This is not to say that there has never been any attempt to clarify this definition; many have done so, particularly within an educational context. Critchley was one of the first to attempt to provide a more comprehensive, less exclusionary definition (from Young & Tyre, 1983, p16):

Developmental dyslexia is a learning difficulty which initially shows itself by difficulty in learning to read, and later by erratic spelling and by lack of facility in manipulating written as opposed to spoken words. The condition is cognitive in essence, and usually genetically determined. It is not due to an intellectual inadequacy or to lack of socio-cultural opportunity, or to emotional factors, or to any known structural brain defect. It probably represents a specific maturational defect which tends to lessen as the child grows older, and is capable of considerable improvement, especially when appropriate remedial help is available at the earliest opportunity.

Although an improved definition in educational terms than that of the World Federation of Neurology, this definition also raises questions. The writer would query the initial sentence, where Critchley states that "Developmental dyslexia is a learning disability". It must be recognised that dyslexia is not a disability of learning as much as it affects the ability of an affected person to learn to process written symbols (and sometimes auditory information) for meaning and understanding, and then in turn to use those symbols to convey their own information, which they will use to facilitate their own learning - but it is certainly not a disorder which affects the person's ability to learn. In fact, dyslexic people are often very gifted in artistic and more practical (rather than academic) areas, yet the fundamental skills these tasks demand still have to be learned.

Young & Tyre (op. cit. p18) then go on to quote Smith, whose definition is yet again different to any other so far encountered:
This term is a name not an explanation. Children who experience difficulty learning to read are frequently called dyslexic, but their difficulty does not arise because they are dyslexic, or because they have dyslexia; they are dyslexic because they cannot read. ...the cure for dyslexia is to learn to read. (original italics)

Although Smith is perfectly right when he says dyslexia is a name, he could not be more wrong when he states that "they are dyslexic because they cannot read". If this were so, every child who cannot read would be labelled 'dyslexic', and therefore the syndrome would be very different to that which we are attempting to describe. Furthermore, if dyslexia were merely a term with which to label a child's learning difficulties, it must then be asked by what means do we determine what these difficulties are, and what has brought them about?

Smith does, however, make a valid point when he states that "the cure for dyslexia is to learn to read" - to read for understanding and meaning, not just words, but signs and symbols and all written material; the other half of the equation is to learn to use this material for the self-expression which so often defeats the dyslexic.

Dr. H.T. Chasty, director of the Dyslexia Institute, offers his definition:

Dyslexia, or Specific Learning Difficulty, is a congenital organising disability which impairs hand skills, short term memory, and perception so inhibiting the development of a child's literacy skills - particularly reading, writing and spelling, and sometimes numeracy. In its effects, dyslexia can range from slight reading or spelling difficulties to complete illiteracy.

This goes further than any so far seen to offer an explanation of the manifestation of dyslexia, especially within an educational context, and makes no assumptions about the learning abilities of the affected person; rather, Chasty refers to dyslexia as an organising disability. This is a much more practical explanation of what the consequences of dyslexia are, in that from this it can be seen that it does not just affect literacy skills, but will have implications for
organising everyday life. Unfortunately, no explanation is offered as to what dyslexia is, nor what causes it. Like Smith's definition, Chasty's fails to distinguish between dyslexia and other learning difficulties which cause literacy problems.

It can therefore be seen that other researchers have attempted to define dyslexia - yet none of these definitions encompass all factors and considerations relating to the syndrome. Dyslexia therefore remains as yet universally indefinable. It would, therefore, be more useful to attempt to define dyslexia within a particular context or field, such as education or psychology, in order to make the definition more workable within that context at least. As has been illustrated, even this seems virtually impossible to achieve.

This is of little consolation to the dyslexic - as Young & Tyre (op cit. p69) say, "the subject is ... bedevilled by the fact that specific developmental dyslexia is variously defined and there is little agreement about either its nature or its characteristics".

3.1.1 The symptoms of dyslexia

If no conclusion can be reached as to what dyslexia is, how are the difficulties encountered by a dyslexic person to be overcome or remedied? It may be more helpful to move away from defining dyslexia, to identifying what it is. Young & Tyre (ibid) appreciate the importance of this:

The needs of dyslexic pupils can no longer be narrowly conceived by exclusionary definitions hedged round by obfuscatings qualifications and circular arguments. They have difficulties in learning to read and they will be helped if they are taught early enough and well enough in a way which teaches them to learn to read by reading. (p139)
This raises further questions about teaching methods and provisions in schools; these will be dealt with later. For now, a shift in emphasis from recognition by definition to the recognition by display of symptoms may prove more useful in aiding identification of the syndrome. As Rutter states (Critchley & Critchley, 1978, p146):

... up to now there is no evidence for the validity of a single special syndrome of dyslexia ... the concept of dyslexia (as usually proposed) remains a rather dubious hypothesis with very little evidence in support.

It is unfortunate that the lack of an 'acceptable' definition continues today. But whether definable or not, what are the symptoms of this condition?

Miles, often regarded as one of the leading contemporary researchers into dyslexia since the 1960's, used descriptive 'signs' of dyslexia. The main signs he noted are:

1. discrepancy between intellectual level and performance in spelling
2. bizarre spelling
3. confusion of b and d in either writing or reading or in both
4. difficulty in distinguishing between left and right
5. difficulty in repeating polysyllabic words, such as 'preliminary', 'philosophical', 'statistical'
6. difficulty in repeating digits in reverse order (and other defects of short term memory)
7. inability to do subtractions except with 'concrete' aids
8. difficulty in memorising mathematical tables
9. losing the place when reciting tables
10. a history of clumsiness, late walking or late talking
   (Newton et al, 1979, p92)

Miles is right to point out that not all of these 'signs' will be found in one particular child; but the writer would argue the first sign he describes is not one that is a necessary factor indicative of dyslexia (as already stated in the Introduction). As dyslexia is a condition which is independent of IQ, it does not
necessarily follow that to be dyslexic a person must be of average or above-average IQ or 'intelligence'. Use of IQ as a measure of intelligence is in itself open to criticism. The writer feels that dyslexia is not a 'selective' syndrome, but that it will affect slow learners equally as much as the most able. It is probably the case that the syndrome is more easily recognisable where a discrepancy exists; it would seem that the issue is ignored where there is not. However, this criticism will be returned to later, as the use of IQ as a test has become a recent bone of contention amongst other researchers.

The writer would also suggest that the signs he describes are too narrow; although each of the above can be indicative of dyslexia, each of the skills described encompass further skills which will subsequently be affected.

Newton's descriptions encompass the effects of dyslexia more competently (1973 & 1976, in Newton et al, ibid, p93), describing them as 'observable behavioural symptoms':

1. Persistent reversals and disordering of letter (e.g. b and d), syllables, words (sawl/was) and word order when reading, writing and occasionally speaking;
2. Mirror imaging of letters and words;
3. Inability to perceive, code and subsequently retain a consistent meaningful symbolic image;
4. The consequent inability to retrieve and express a relevant, meaningful output of linguistic material
5. Severe spelling disorder;
6. Non-resolution of hand, ear and eye dominance;
7. Late development of spoken language in early childhood;
8. Difficulties with sequencing, order and direction;
9. Sometimes motor clumsiness, sometimes hyper-activity and occasionally superior ability in spatial skills, in direct contrast to the disability in linguistic skills.
Newton here offers a far more coherent explanation of the symptoms than Miles - she describes what 'goes wrong' as opposed to merely describing some of the effects of the disorder on the individual, as Miles does. Those written in italics (the writer's) are particularly crucial effects, with implications for many everyday skills, not just literacy. From Newton's explanation we can understand more about the nature of the syndrome, from which we can then go on to recognise, and more importantly understand the symptoms when they occur in an affected person. It is also significant that to Newton, the question of a discrepancy between intellectual level and performance is not a diagnostic factor; whereas to Miles, it is the most fundamental 'sign' to observe as an indication of the disorder. The only discrepancy which Newton does refer to, as the last of the 'observable behavioural symptoms', is that between ability in spatial and linguistic skills. This is a much more specific and relevant discrepancy to look for; but must also be treated with caution, and not as the definitive indicator of dyslexia.

However, from these two descriptions of the symptoms or signs of dyslexia, it must become apparent that the condition is a syndrome - a cluster of symptoms, of which few or all may be present in an afflicted person. It may also be emerging from the evidence presented above that it is a disability which can be very difficult to identify - indeed, diagnosis is usually made by the 'exclusionary' process highlighted by the World Federation of Neurology's definition, rather than including factors which identify the condition. The reason for much of the confusion and difficulty is that it is still not conclusively known what causes dyslexia; until it is proven, it is impossible to know how to gauge attitudes, reactions and remediation to the disorder.
3.1.2 Theories of aetiology

Since research began one hundred years ago there have been many theories regarding the aetiology of the condition. Kussmaul introduced the concepts of 'word-blindness' and 'word-deafness' in 1878. His idea was that some form of congenital word blindness might explain why intelligent children had difficulties in learning to read.

Hinshelwood lengthened the description to that of 'congenital word-blindness' (1917), by which he meant:

A congenital defect occurring in children with otherwise normal and undamaged brains characterised by a difficulty in learning to read so great that it is manifestly due to a pathological condition, and where attempts to teach the child by ordinary methods have failed.
(from Miles & Miles, 1990, p5)

Miles points out that Hinshelwood was one of the first to note that the syndrome could be hereditary, and was more common in boys than in girls. It must be noted that a comparison of Hinshelwood's definition of congenital word blindness with the World Federation of Neurology's definition of developmental dyslexia show startling similarities, despite the fact that they were written fifty years apart. This serves to reinforce the fact that progress in research into dyslexia is slow, because the nature of the syndrome is so complex.

The next main theory of the causes of dyslexia came from Samuel Orton, (1937), an American Neurologist. He stressed that the concept of 'congenital word blindness' was misleading, and proposed instead the idea he called 'strephosymbolia', meaning 'twisted symbols'. His was a neurological account of how the two hemispheres of the brain each record visual images, one doing so as a mirror image of the other. His argument was that if no single hemisphere is dominant, as he thought was the case in dyslexics, both hemispheres feed
information and so the dyslexic will write images from both hemispheres; subsequently, some of these will be mirror images.

Orton's theory reflects medical opinion, that dyslexia is caused by some neurological deficit. The concept of dyslexia as a medical condition is reinforced by the fact that it appears to be hereditary, from which we must conclude that it is genetically determined. This neurological definition of the cause of dyslexia was one that held strongly for a long time, leading onto discussions of cerebral dominance and 'handedness' (use of right or left hand for performing tasks), and the implications for reading and writing, to the opinion of Sparrow and Satz (1970). Their idea was that asymmetry of the functions of the two hemispheres, which is related to performance in reading and writing, establishes itself as a normal child develops; but in the case of a dyslexic child this does not happen, and they are therefore unable to accommodate the skills required for the reading and writing processes.

Research into the medical reasons of the condition continue along these lines today. As Jorm (1983, p60) says, "When people use the term dyslexic to refer to children with specific reading difficulties, the usual implication is that some biological deficit underlies the problem". A recent study (Galaburda, 1989, from Miles & Miles, 1992, p2) showed that the normal asymmetry of the two hemispheres of the brain was not apparent in the brains of eight dyslexic people, and that they all showed structural abnormalities. This might explain why dyslexics are better at spatial awareness (right-hemisphere controlled) than linguistic tasks (determined by the left hemisphere). Genetic research, although still incomplete, has concluded that dyslexia is familial and substantially heritable, with linkage of developmental dyslexia to a particular chromosome, chromosome 1p34-p36 being suggested (Pennington, 1989; Rabin et al, 1993). Rutter (in Benton & Pearl, 1978) felt that there was insufficient evidence to state
that dyslexia, as opposed to other types of reading disability, is genetically
determined. He quoted a study by Berger, Yule & Rutter in (1975) where it was
found that reading retardation is much commoner in boys than in girls, with a
ratio of about 3.5 to 1. However, what they also found was that there was a
distinct variation in prevalence of reading retardation according to geographical
area. The study was carried out in Inner London and the Isle of Wight; it was
found that reading retardation occurred in about 10% of London ten-year olds,
but only about 4% of Isle of Wight ten-year olds. This, says Rutter, dispels the
theory that reading retardation in general, as opposed to dyslexia specifically, is
a genetically determined condition. A further paper (Rutter et al, 1975) stated
that reading retardation is, rather, attributable to other factors such as "family
discord, parental deviance, social disadvantage, and certain school
characteristics" (p529) found in inner-city areas such as Inner London. It can be
said, in light of the above genetic evidence, that although these 'social' factors
do affect reading progress in children, they are very different to the cause of
dyslexia. It is significant that research in genetics does not hold the hesitancy
over the existence of dyslexia that educationalists seem to (see Smith et al,
1983, Prescott, 1988; Pennington & Smith, 1988); indeed, the more recent
 genetic evidence can pinpoint dyslexic children from all social backgrounds,
whereas Rutter et al admit that "the important distinction between specific
reading retardation and general reading backwardness was not possible"
(p510). It would therefore seem that Rutter was unjustified in his dismissal of
genetic evidence of the aetiology of dyslexia, particularly in light of more recent
research.
3.2 The relevance of aetiology to education

Dyslexia is a condition that has to be considered in different lights within different contexts. Educational psychologists have taken several stances over the past forty years when considering dyslexia. They regard dyslexia not as a medical condition, but as a problem of *school learning failure*. Vernon's (1957) list of causal factors of reading difficulties include the following:

1. Inadequate readiness for reading
2. Physical handicaps such as sight and hearing
3. Neurological defects
4. General retardation of speech development and speech difficulties; limited vocabulary
5. Restricted background of experience due to social and cultural handicaps.
6. Personality factors, emotional difficulties
7. Social factors
8. Environmental factors
9. Unfavourable home conditions
10. Defective teaching methods and school organisation; inadequate supplies of reading material of satisfying interest and too large classes.

(Newton et al, op cit. p8)

From an educational viewpoint, a distinction has to be made as to which of the above are causal factors, and which are additional complicating factors (that is, those factors which further hinder those with dyslexia). Such conclusions may be drawn later, when more recent research has been discussed.

The emphasis which psychologists place on the examination of the phenomenon of dyslexia is on the context of the developing child as a whole. This alternative viewpoint may be useful from the educational context in determining the help a child should receive; but in terms of the cause of dyslexia, only a medical explanation can suffice.

As Newton et al (ibid) so rightly point out, although these are regarded as the most widely acceptable suggestions as to the aetiology of dyslexia...
... they are not explanatory in that they do not describe the perceptual or motor difficulties observed in the children nor the actual process by which these factors give rise to difficulties in written language. All of these must be taken into account if a complete understanding is required. (p29)

More recent research has attempted to do so. One explanation for deficiencies in reading skills due to perceptual and/or motor difficulties is that of a 'maturational lag'. This is a concept introduced by Critchley, who recognised that many dyslexic children displayed a great improvement in their literary skills round the age of puberty. He therefore felt that problems of a perceptual nature especially could be attributed to a slow maturation in the child of the skills required for literacy:

The most favoured hypothesis today as to the cause of developmental dyslexia is a delay in the maturation of those parts of the brain which are concerned with reading. (1978, p142)

This concept helped to significantly narrow down the ideas relating to what the cognitive defect was. However, there are two points of criticism to this definition. Firstly, there is that of the term 'delay'; this suggests that all dyslexics will eventually overcome all of their difficulties, and that it is just a matter of waiting for this to happen. As we know, this is just not so. Although dyslexics do often overcome some of their problems, many continue to have severe difficulties throughout their adulthood. Difficulties with spelling tend to occur in nearly all adult dyslexics. The second criticism is with Critchley's use of the word reading. Critchley seems to be suggesting that dyslexia is a syndrome whereby the ability of the affected person to read only is impaired. Yet dyslexia affects many areas of language performance, organisation, and other skills which are put into use everyday, yet are not remotely related to reading. This seems very shortsighted on the part of Critchley.
However, still newer concepts of the perceptual difficulties encountered by dyslexics have since been generated. The extent to which these perceptual difficulties apply is largely determined by the symptoms displayed by each individual dyslexic - an additional complicating factor in diagnosis and treatment. There are now three categories of difficulties encountered by developmental dyslexics; visual, phonological and motor processing difficulties. Any dyslexic will encounter at least one, and maybe all of these problems.

3.3 Subtypes of dyslexia

3.3.1 The Concept of Visual Dyslexia:

Looking back to the work of the earliest researchers such as Kussmaul and Hinshelwood, it can be seen that even at such early stages they recognised that the condition was that of a perceptual nature. They focused on the idea that dyslexia was a syndrome caused by visual perception difficulties - hence the term 'word-blindness' which is still used by some people today. Indeed, there do appear to be some difficulties which can be attributed to deficits in visual perception. These are often corrected by tinted lenses in spectacles; the Dyslexia Institute also advocates using coloured overlays on printed material to reduce the stark contrast between the white paper and the black print which can make reading difficult. However, the visual perceptual difficulties go much deeper than this. The problem occurs in recognising and then processing the written symbol into meaning. Cynthia Klein (1993, p45) describes the following problems which occur as a result of visual processing problems:
Reading: often misread familiar words, and have difficulties recognising words. Comprehension affected, as spontaneous recall is vague; therefore the student may need to re-read the passage several times to remember significant details. May not use punctuation cues.

Spelling: errors are phonetic alternatives, but fail to follow English spelling convention. Rule-based errors common, also visual sequencing errors (naer for near).

Klein points out that visual and motor processing difficulties can go together, leading to problems with handwriting. With a 'visual' dyslexic, it is therefore an inability to recognise and process the written symbols which causes the fundamental difficulties encountered in both reading and writing. One hypothesis came from Stanley (1975), who argued for the theory that the visual information tended to remain in the immediate short term memory longer in dyslexics, and that the information therefore took longer to pass on to the next stage of processing. However, the reasons why it should take longer must again come back to difficulties in recognising the written symbol, which would ultimately delay processing of information. Visual processing problems were, initially, regarded as the root cause of dyslexia, as can be seen above. However, it has more recently been recognised that such difficulties are not the source of the problem for the majority of dyslexics. It is currently believed that many of the problems associated with dyslexia are caused by auditory perception problems, that is in phonological processing. It is therefore important to discuss the findings of recent research based on this theory in more detail.

3.3.2 Auditory Dyslexia

By 1981 researchers and theorists such as N. Ellis were proposing that the problems which dyslexics encounter occur when visual stimuli have to be named. This problem occurs in two ways. Firstly, when a noun has to be given to a tangible object, the dyslexic will often be seen to be 'searching' for the right
word to use, even when they know the meaning of that particular word. However, the second way in which naming is a problem is related more closely to spelling, the one area in which dyslexics will often continue to have problems into adulthood, even if they manage to overcome reading difficulties. The problem occurs when the dyslexic is learning the alphabetic system. The most fundamental learning task which most of us take for granted is problematic for dyslexics because every letter they learn has a name that is different to the sound that letter makes. The dyslexic child therefore has, when spelling, to distinguish between the letters 'c' 'a' and 't' as they stand in their named forms, and the sounds they make as the component letters of the word 'cat'. If, as is now believed, dyslexics have problems with phonological processing, this system of literacy which is the basis of all education makes it much more difficult for the dyslexic to learn, and at the most fundamental stage of the learning process. This will clearly affect the rate of educational progress.

Snowling (1987) backs up this theory by quoting Ellis's experiment, in which he showed subjects pairs of letters which were either physically identical, such as AA, or physically different such as Aa or AB. The subjects had to decide whether the letters in the pairs had the same identity or not. It was found that all of the subjects responded more quickly to physically identical pairs than to pairs which had the same name only. As Snowling says, "The results so at least rule out the possibility that dyslexics have a basic visual perception problem which would preclude letter processing. Rather, their problem seems to emerge when name-coding is required" (p17), that is with 'finding' or recalling names of objects when communicating. This experiment appears to firmly relegate the 'visual processing' theories to the less significant causes and/or effects of dyslexia. Snowling takes this further, to conclude that dyslexics have deficiencies in 'verbal memory and phoneme segmentation processes'.

29
Many researchers have begun to examine the role of phonological processing in the process of learning to read. Over the past ten years it would seem that most have concentrated on this as the fundamental factor in determining how well a child will read. It is considered that the ability of children in hearing and identifying sound sequences will have implications for their reading and spelling skills later in their schooling. The argument is that if children are to understand the relationship between the letters and words they see, and the sounds that these represent, that is between graphemes and phonemes, they need the initial skill of being able to analyse sounds and the way they blend together.

It is now widely acknowledged that one of the most fundamental problems which besets dyslexics is that of verbal memory difficulties. Vellutino (1987, from Miles & Miles, 1992, p2) spoke of phonological processing deficits in dyslexia as "the inability to represent and access the sound of a word in order to help remember the word". Snowling notes that in experiments (Spring & Capps, 1976, Bauer & Emhert, 1984: from Snowling, 1987), dyslexics remembered only the last few of a list of words, which indicates that transferral of the list into long term memory does not occur. The theory behind this problem is that such transferral requires a verbal coding process, which dyslexics, it would seem, are unable to operate.

Other experiments suggest that dyslexics use different coding systems when reading; 'normal' readers encode a word using its phonological features, while dyslexics tend to encode semantically. This is demonstrated by a phenomenon which can seem incomprehensible to the 'normal' reader, but which dyslexics regularly do. The dyslexic will read the word on the page visually; while he is trying to decode it phonologically in order to say it, he will have decoded it semantically, usually through the context in which the word is
set; and so he will be able to tell you the meaning of the word before he can tell you what the word is. Swanson's (1984) experiment showed that dyslexics were able to draw meaningless shapes from memory; when these shapes were given a verbal label, their ability to draw them diminished rapidly. This was not the case with skilled readers. Swanson concluded that the disabled reader had difficulty integrating verbal and visual codes, which the skilled readers use to aid memory. The first part of the experiment illustrates that dyslexics can code visually in terms of pictures; it cannot therefore be a visual, but must be a phonological coding deficit which prevents dyslexics from being able to identify the sound of a word, even though they know the meaning. It is probably the case that disabled readers continue to code in terms of pictures only, rather than in words as most skilled readers do, which accounts for later problems with spelling and general memory tasks.

One part of the process of phonological decoding is phoneme segmentation. This is the process by which words are broken up into their constituent sounds, in order to appreciate the correspondence between the letters and sounds in words. Snowling notes that in tests, dyslexics did less well than younger reading age matched controls. An inability to segment at phoneme level causes problems with phoneme blending when producing speech, and so, as Snowling says (p34), "A direct consequence of this processing deficit would be to slow the acquisition of new words into the spoken vocabulary". If the spoken vocabulary, which is the first aspect of language which we learn, is slow to acquire new words because of this, how is the dyslexic to be expected to cope when learning to read?
Klein (1993, p47) says that the following problems are associated with what she calls 'auditory dyslexia':

**Reading:** Major problems in decoding unfamiliar words. Other than this can be quite fluent readers. Often have good comprehension. Rely heavily on context.

**Spelling:** Spellings very disordered. Major sounds may be missing. Spellings are very difficult to acquire. Syllables may be omitted or missequenced (immediate for immediately).

It can be seen that the problems which affect an auditory dyslexic are very different to those which affect a visual dyslexic. The writer feels that the problems with phonological processing are more fundamental than the visual processing difficulties. We use 'inner' speech in our mind when we read the printed letter or word - this is how we extract meaning from such symbols, by mentally 'saying' them. We therefore hear the sounds of the words and their constituent sounds in our heads. When a dyslexic is therefore able to recognise the meaning of a printed word, but unable to say it, it would therefore appear that visual processing is not affected. It is the matching of the sounds of the letters, in the order that they appear, and the way that they are blended to make the sound of a particular word, where dyslexics seem to have the most difficulty. This accounts for why dyslexics not only have difficulty with reading printed words to themselves and aloud, but also for why it is that when they speak, what they actually say may not be what they intended! Snowling concludes by suggesting that maybe the two deficits of phoneme segmentation and verbal memory are linked in dyslexics. What she does note is that the nature of these deficits change as children develop, and that the use of phonetic memory codes does improve as they grow older. She therefore suggests that "dyslexics do not have available phoneme segmentation skills or phonological memory codes at the right time . . . when these are required for learning to read" (p36). Such a
hypothesis takes us round in a large circle back to the concept of 'maturational lag' which was seen earlier as one theory as to the problems dyslexics encounter. It may therefore be the case that it is a maturational lag which is responsible for the phonological and memory deficits which hold back the dyslexic child where the use of symbolic material is concerned. Snowling (op cit., pp21-24) claims that experiments by Johnston (1982) and Olson et al (1984) have shown that 'normal' readers use phonological coding most frequently at the age of 7, and much more than disabled readers of this age do. However, the situation is reversed by the time the children reach the age of 16, where the disabled readers are using more phonological coding for reading, and 'normal' readers use little. It may be that these results confirm the maturational lag theory, pinpointing this delay on the development of phonological processing skills; but it may also be that external factors, such as teaching methods, are contributing to the use of these processing skills.

Other researchers have argued that "phonemic awareness is a consequence, not a cause of learning to read" (Snowling, ibid p27). This is to say that only through reading do we become aware of phonemic distinctions in words which are similar both orthographically and phonologically - for example 'sit' and 'spit'. If this is so, it may explain the delay in the acquisition of phonological processing skills in dyslexics - but not why they are slower to learn to read initially.

However, the hypothesis that many of the problems of dyslexia are caused mainly by phonological processing deficits is refuted in part by some. Ellis later draws the following conclusion with Miles (Pavlidis & Miles, 1981, p191):
... that dyslexic children show a deficiency at the level of lexical encoding; ... these children have a more general difficulty in lexical encoding of written words.

What is meant by 'more general difficulty' is difficult to discern (yet it is a term used several times on the same page). Surely if more factors are contributory to lexical encoding than just phonological difficulties, the difficulty becomes less 'general', and much more difficult to define and attempt to deal with?

As the experiments by Swanson quoted above have shown, and as other similar studies quoted by Miles & Ellis (p209) illustrate, in visual recognition tasks of objects without names, dyslexics perform as well as normal readers. This is not to say that dyslexics cannot attribute meaning to these objects - rather, the writer would suggest that dyslexics tend to think in pictures rather than words, as most 'normal' readers do. This is because the lexical encoding of visual stimuli requires phonological processing after the visual input in order that the dyslexic recognises the sound of the word, and can then process it for meaning.

This is just one of the criticisms of this chapter by Miles and Ellis. However, further discussion would continue along the same lines; until more research proves otherwise, existing research seems to support the view that many researchers feel that phonological processing deficits are the main cause of all language and subsequent related difficulties for the dyslexic. This can be justified by looking at other theories of these different perceptual deficits in dyslexics.

3.3.3 The use of subtypes

Boder (1973) classified dyslexia into three subtypes. She recognised that some dyslexics appeared to have difficulties with visual processing tasks, while
others had problems with auditory processing. She labelled these 'dyseidetic dyslexics' and 'dysphonetic dyslexics' respectively. These terms are perfectly interchangeable with 'visual dyslexia' and 'auditory dyslexia' (much like those of 'dyslexia' and 'specific learning difficulties'), and to this extent the writer is unclear about Boder's reasons for generating her particular terms, especially 'dyseidetic' dyslexia. According to the Oxford English Dictionary (2nd ed.), the definition of edetic is:

applied to an image that revives an optical impression with hallucinatory clearness, or to the faculty of such images, or to a person having this faculty.

By her assertion that a 'dyseidetic dyslexic' has problems in the visual processing element of reading and writing, Boder seems, with her use of this term, to be suggesting that 'normal' readers do so via this 'image' that 'revives an optical impression with hallucinatory clearness'. This may be true of experienced readers; but every child, whether dyslexic or not, will not reach this stage of fluency for a number of years. It might therefore be suggested that Boder could revise this term; or even discard it altogether. The terms 'visual' and 'auditory dyslexia' more than adequately describe the concepts, whilst the irony of attributing such needlessly complicated labels as 'dyseidetic' and 'dysphonetic dyslexia' to this particular disorder must be obvious!

Boder also referred to a third subtype, a group of dyslexics who encountered equally both types of difficulty; or 'mixed dysphonetic-dyseidetic dyslexics' (A. Ellis, 1984, p123). In Boder's opinion, these were the dyslexics who would have the greatest difficulty in becoming literate. This must indeed be the case, as semantic decoding, the compensatory reading strategy which dyslexics often use, cannot be activated if both visual and auditory processing mechanisms are impaired.
What is interesting about Boder's experiments is the number of dyslexics she found within each subtype. Of the 107 dyslexics in her sample, 63% were found to be dysphonetic (auditory) dyslexics, 9% dyseidetic (visual) dyslexics, and 25% fell into the mixed group. These would appear to confirm the feelings of many recent researchers, the writer included (see above), that the root of the perceptual problems which handicap developmental dyslexics lie in their inability to process information phonologically.

One criticism of Boder's work is that she appears to assume that those dyslexics she classifies as either 'dysphonetic' or 'dyseidetic' suffer purely from this particular perceptual deficit, or that it is an equal mix of the two. In practice, as has previously been mentioned regarding general symptoms, this is rarely the case. Ellis (ibid) is one critic of this assumption:

Pure forms of a particular syndrome should occur from time to time, but they will be the exception rather than the rule. ...we must expect most dyslexics ... to have mixed disabilities though they may be more biased toward one type than another. (p124)

This is a fundamental point to make, reinforcing the diversity of symptoms and their implications in each dyslexic, who must therefore be treated as an individual and unique case according to their particular symptoms. However, as Ellis goes on to say, this is not to dismiss the concepts outright:

The fact that dyslexics do not fall neatly into one or other of the proposed subtypes is not an argument against the validity of those types. (ibid)

Georgina Rippon (in Snowling & Thomson, 1991) seems to believe in even more stringent classification into one or other of Boder's two 'pure' subtypes with no concern even for those who may fall into the mixed group, let
alone those with an array of symptoms which may be characteristic of one subtype in reading, for example, but not in spelling. She states that:

One dichotomy which has been described concerns handicapped readers with mainly auditory problems (auditory-linguistic or dysphonic dyslexia) as opposed to a second group with mainly visual problems. (p45)

For Rippon, as her use of the word 'dichotomy' emphasizes, the question of subtypes is purely 'black or white'. As far as the individual dyslexic is concerned, this is far too simplistic a method of classification. However, the concept of such a dichotomy is useful when considering research. Rippon quotes the work of Bakker et al (1980), which proposed two types of reading difficulty determined by cerebral lateralisation. According to this study, one type relies on left-hemisphere processing (that related to language), and results in poor spatioperceptual skills, whereas the other type relies on processing by the right hemisphere, that is using spatioperceptual analysis when it is no longer appropriate for reading. These two descriptions would seem to link up with the concepts of auditory and visual dyslexia. The 'auditory dyslexic' must be the left-hemisphere processor, who can rely on context to decode semantically where phonological processing does not function adequately. Conversely, the 'visual dyslexic' would be a right-hemisphere processor, who is unable to read the same word twice within a text without sounding it out each time, and similarly with spelling. However, why it should be that phonological processing difficulties with left-hemisphere dominance, and that visual processing deficits with right-hemisphere dominance should occur solely in these combinations must be questioned; indeed, these findings warrant further research.

What is important about the work of Bakker et al is that they recognised that dyslexia is not just a set of symptoms which occur in every affected person;
indeed, although it has been taken to extremes, it has subsequently been acknowledged that this 'dichotomy' does exist:

If it is the case, as seems likely, that the reading disordered population is a heterogeneous one, then any attempt to investigate the underlying processes which does not take this heterogeneity into account will produce the type of conflicting and contradictory results that are, in fact, characteristic of this research. (ibid p.45)

After the recognition of this heterogeneity, Elaine Miles (in Snowling & Thomson, op cit.) questions whether such a distinction is either necessary or useful. She discusses the work of Johnson and Myklebust (1967). They were among the first to realise that dyslexia could be attributed to both auditory and visual perceptual deficits. Miles argues that many of the characteristics which they attribute to each subtype cannot be justified as being specific to dyslexia; for example, the visual differences, she argues, between 'snip' and 'ship', or 'beg' and 'bog' are so slight that skilled readers would read these correctly largely through context - therefore this 'visual deficit' cannot be upheld as a trait of the dyslexic only. She backs this up with the assertion that "What we have come to realise is that it is not enough to consider letters purely from a visual point of view; we have to remember their linguistic function" (ibid, p197). This of course leads to the writer's opinion that phonological processing always has to follow the visual recognition process. Miles also points out that auditory dyslexics have difficulties at the pre-reading stage (she quotes Bryant and Bradley, 1985). While the visual dyslexic can start to learn the sounds that letters make, the auditory dyslexic has to be made aware that the printed letter represents a vocal sound, and to acknowledge the relationship between the two before she can learn the letter sounds. Thus auditory processing difficulties beset the dyslexic at the pre-literate stage, so hindering learning even before they begin.
Miles also criticises Boder's classifications, concerning the methods of testing used. She quotes van den Bos (1984), who used Boder's classification methods but found no difference between the dyseidetic and dysphonetic groups when the letters were presented both visually and auditorily. Boder also gives as examples of her typical dysphonetic and dyseidetic dyslexics two boys of very different age, intelligence levels and school experience. Miles points out that similar age and 'life experience' are absolutely necessary, as is the severity of the reading difficulty in order to make a distinction between each subtype classification.

Miles concludes her article with the question "Is the visual dyslexia/auditory dyslexia a valuable distinction"? Her conclusion is that "it would seem not" (ibid, p201). Her argument is that visual dyslexia is really non-existent; looking at Boder's sample, she is right in so far as only 9% were classified as 'dyseidetic dyslexics'. Miles also argues that "many so-called 'visual' errors can be viewed as due to linguistic deficiencies which prevent mastery of the alphabetic code, its symbols and its relationship to the oral language on which it is based" (ibid). This makes sense if it is considered that all visual processing has to be followed by phonological processing, and this affects not just reading but also writing. Experiments such as Swanson's, and that of Ellis & Miles (see both above) demonstrate that visual processing in dyslexics is generally unimpaired (although visual problems may be an additional difficulty restricting academic performance). It is when a phonological processing element is introduced that difficulties arise. It is the nature of these phonological deficits which render dyslexia a specific difficulty; it is because dyslexics do have other resources available (mainly semantic processing skills) that they cannot be regarded as suffering from a general learning difficulty.
However, taking the condition of deficits in phonological processing alone does not wholly explain the problems which beset the dyslexic. It is the opinion of the writer that the difficulties associated with the syndrome are perceptual, but not quite in the way outlined above. It is known that the difficulty generally arises when dyslexics have to deal with written language in any form; and it would therefore follow that this occurs because dyslexics cannot reconcile the relationship between spoken and written language forms. If the difficulty were purely one of phonological processing deficits, dyslexics would be more like generally retarded learners or even deaf children in their initial language acquisition; their verbal language production and its development would be delayed in comparison with 'normal' children. Dyslexia is therefore not an impairment of language. Such a delay would also be noticeable to parents from early in the child's development. None of these symptoms tie up with dyslexia; indeed, dyslexic children are often so fluent in their use of verbal language that expectations of their potential achievements at school are high. It is, of course, at this stage that the problems begin, when dyslexics are unable to live up to these expectations.

As has also been proven by experiments (see Swanson, Miles op cit.), visual processing in dyslexics does not appear to be impaired (although this may be a condition which affects a child as well as dyslexia). It must therefore be perception of the relationship between the two language forms, that is spoken and written, which causes difficulties for the dyslexic. It is possible that dyslexics cannot relate the written visual symbol to its phonological representation, as the two language forms cannot be reconciled. This would explain why the initial acquisition of spoken language is rarely impaired in dyslexic children, and confirm that dyslexia is not an impairment of language. This would also explain why dyslexics sometimes have difficulties finding words when they are speaking.
One dyslexic explained that he thinks in pictures, not words; moving from the physical picture to find the phonological representation of the word is where the process breaks down.

3.3.4 Motor processing deficits

Having questioned the validity of the 'auditory' versus 'visual' dyslexia labels, it must also be noted that there is also a physical difficulty which often affects dyslexics. This concerns motor processing skills, as opposed to perceptual processing. This is an aspect of developmental dyslexia which is often overlooked, or at most retarded as being 'additional' to the perceptual difficulties encountered; but it accounts for the lack of some basic skills which are often taken for granted even more than the reading skills impaired by perceptual deficits.

Motor processing deficits may indeed be one of the first signs of developmental dyslexia in a child of pre-school age - the child who can never remember left from right; who cannot tie his shoelaces; who has co-ordination difficulties when playing games; and who may also have some early difficulties with articulation. Of course, all children will go through the above stages as part of a general learning process, and it must not be assumed that almost every child who has these signs is therefore possibly dyslexic. But with hindsight, as the child starts school and more significant literacy difficulties come to light, recognition of the above factors as possibly being attributable to deficits in motor processing skills may aid diagnosis, and subsequently provisions for the correct help for that child in school.

This is not to suggest that difficulties with motor skills are merely a precursor to the literacy problems which developmental dyslexics will encounter. Deficits with such motor skills will continue to affect the dyslexic, further
hindering his difficulties in becoming literate. Klein (1993, p11) notes the following as characteristics of the dyslexic with motor processing difficulties:

There may be very fine motor co-ordination problems, sometimes only exhibited in written language. Also, note any description by the student which suggests confused motor control or lack of motor integration e.g. the student intends to write one word but finds his or her hand writing another, 'hand adds or writes letters with a mind of its own', hand tires easily, student has to press hard to control pen or think about forming the letters. Also observe the way the student holds the pen and paper while writing to note any extreme degree of rotation or peculiarity of pen grip.

From this, it must be realised that the problems which face a dyslexic are not confined to just the perceptual. Take, for example, the process of copying a spelling from a dictionary. First, it has to be processed visually; the symbol then has to be held in short-term memory while it is processed phonologically. It then has to be processed semantically (so that the reader understands what the word means, and knows that he is copying the one he intended to); and converted to the visual form on paper with a pen, which involves motor skills. To achieve the final result of a single word copied from a book onto a clean sheet of paper involves, in the simplest terms, five different but interactive processes. Yet of these five, from all the evidence given above, only one appears to be readily available to the dyslexic, that of semantic processing. If each of the other four separate processes are equally difficult for the dyslexic to perform, it is no wonder that acquiring basic literacy skills is so difficult.

It can therefore be seen that, although they are often not regarded as particularly significant, deficits in motor processing skills are an additional and unwelcome handicap for the dyslexic, further hindering his acquisition of written language production skills and causing other co-ordination problems, which cause additional problems in the classroom situation. Klein (op cit. p47) sums up the difficulties particular to deficits in motor processing as follows:
**Reading:** may not have significant difficulties, but may have problems crossing midline so need to put text to one side to read. Visual tracking may be a problem.

**Spelling:** many phonetically accurate. Errors usually include omission or repetition of syllables or letters.

**Handwriting:** lack of connected writing; irregular formation or poor construction of letters; inability to stay on the line; may not be able to write fast enough to complete work; may have to press hard to control writing.

The difficulties encountered with handwriting are immense, and as they are additional to the difficulties caused by deficits in visual and phonological processing, must be incredibly demoralising for the affected child. However, the writer feels that Klein is making much the same mistake as Boder and others, as she states that dyslexics with motor processing difficulties "may not have attentional difficulties of those with auditory or visual problems" (ibid). She appears to be inferring that this is a third subtype, which exists as distinct from auditory and visual forms and is in itself a 'pure' subtype. It is vitally important that this assumption is not made; as with the other subtypes, deficits in motor processing skills will rarely exist in isolation; indeed, by definition (such as they are), it could not. It would seem from Klein's descriptions that motor-processing deficits are more likely to concur with visual processing deficits, if only in that such deficits impede the movement of the eyeball. However, due to the lack of emphasis placed on these deficits by most researchers, it would seem that motor processing deficits are the least intrusive of the three, and will occur in conjunction with other perceptual deficits, to different extremes in different dyslexic individuals. Yet despite the lack of importance placed on it, the implications of motor processing deficits alone on the acquisition of written language skills and subsequently the education of the affected child are immense, and should not be underestimated.
3.4 The Educational Implications of Dyslexia

It can be seen from the above evidence that the literature concerning dyslexia holds many different and often contradictory ideas about its aetiology, diagnosis and the difficulties it causes the affected person. It is obvious that more research needs to be done to discover which of these hypotheses are correct, so that much more can be done to help the dyslexic overcome his difficulties. Until that time, however, what is most important is to help all dyslexic children in every way that is currently possible. As dyslexia is a syndrome which is most greatly manifested when the dyslexic comes into contact with written language, it is at school where the majority of their most fundamental difficulties will be encountered. What must now be considered, therefore, are the implications of this syndrome on the ability and performance of an affected child at school.

3.4.1 Language Acquisition

When they begin to attend school at the age of four or five, it is generally expected that all children will begin the process of learning to read. Children are exposed to spoken language from the moment of their birth; at a few weeks old, most 'normally' developing children can understand differences in intonation; and by about six months are able to mimic speech in their own babbling way. From twelve months to five years they will acquire most of their basic vocabulary and knowledge of how to construct utterances. It is at this stage that they are expected to move on to the written form of language. The transition is not as smooth, however, as the initial acquisition of spoken language.
Katharine Perera (1984) notes that many normally developing children have extreme difficulty in learning to read. Her explanation for this difficulty is that the written language form is so fundamentally different to the spoken language which the children are able to use with ease. She notes three major differences between the two language forms:

First, as written texts have to be self-sufficient and largely independent of any physical context, readers - unlike listeners - do not receive any non-linguistic information from the author . . . so there is nothing to support their interpretation of the language.

Second, written language uses some grammatical constructions and discourse structures that are rare in everyday speech.

Third . . . written language lacks the prosodic features of intonation, stress, rhythm and pause which, in speech, indicate how words are grouped together in grammatical constituents. (p273)

For a child learning to read, each of these presents a language situation which they are not used to, and which they are not equipped to deal with. It must therefore be the case that the reconciliation of the written language form with the spoken one which is already known so well must be difficult for any child. So which additional problems affect the dyslexic child?

Frith (1985) described three stages of the development of reading - the 'logographic', 'alphabetic' and 'orthographic' stages.

The first is the logographic stage, where children recognise only whole words visually. This explains why children can often read words which they cannot spell. The ability to do so comes when they reach the alphabetic stage of reading. Children now develop their knowledge of letter-sound correspondences, and can therefore also read by doing so. The final orthographic stage has been reached when children can read and spell 'automatically', based on their "knowledge of the associations between graphophonemic elements, syntax and semantics" (Pumfrey and Reason, 1991, p75).
If the acquisition of reading skills is broken down into these three components, it can be seen that dyslexics seem to get 'stuck' before they reach the alphabetic stage; that is, they are unable to 'sound out' words when age-matched 'normal' readers are reading 'automatically'. This is attributed to difficulties with the phonological processing element of the decoding process, as dyslexics cannot make the transfer from grapheme to phoneme. This of course has consequences not only for the dyslexic's reading ability, but also her ability to spell. Snowling (1987, p89) quotes Thomson (1981) who reported that dyslexics make one spelling error in five, compared to one in thirty-five for normal readers. It is because dyslexics have difficulty reaching the alphabetic stage that they have to use compensatory strategies, such as semantic decoding, to aid their reading (as outlined earlier). However, semantic processing cannot aid the dyslexic's spelling skills, explaining why this is a weakness that often follows dyslexics into adult life.

3.4.2 The dyslexic reader

Snowling's experiments (1980, in 1987, p75) to investigate the reading behaviour of dyslexic and normal readers found that although the dyslexics were tested against reading-age matched controls, they still performed worse. They were unable to decode 'letter-strings' they had not seen before - implying that they were still at Frith's logographic stage. Even as their reading age increased, their visual-auditory matching did not seem to change between the reading ages of 7 and 10 years. Snowling suggests that the increase in reading age is therefore only brought about by an increase in sight vocabulary, and so they are still at the logographic stage.

However, it is known that not all dyslexics have most difficulties with phonological processing. There are those who are unable to read irregular or
unknown words. These are of course the 'visual' dyslexics, who have progressed beyond the logographic stage, but are now stuck in the alphabetic stage, unable to progress to the orthographic stage because they cannot process strings of letters alphabetically, and because they always sound out words phonetically.

It must therefore be obvious how the dyslexic child is handicapped from the very beginning of her school career. Dyslexics are generally slower in acquiring the skills of letter to sound association, which means that they are unable to reach the alphabetic stage of the reading process. If they are unable to process unknown words, the consequences for their education are phenomenal in terms of failure. Children perceive failures to achieve the 'norm' from an early age; in dyslexics, this 'failure' is frequently accompanied by intense frustration and anger because their intellectual level is often well above their reading level. This means that the dyslexic child is quite able to manage the concepts of different subjects which she is taught, but is unable to express the many ideas in her head onto paper, copy correctly from the blackboard, read quickly enough from books, or complete work during lesson time. Such frustration has to be vented somewhere, and may therefore lead to the child exhibiting emotional or behavioural outbursts, such as disruptive behaviour in particular lessons. Such strategies may also be adopted by a dyslexic in order to cover up what she perceives to be her weaknesses. The dyslexic may therefore be an unwilling reader, even though she contributes to class discussion; or may simply resort to 'bad behaviour' tactics to ensure that she is sent from the room before her turn to read arrives. The difficulty that arises here is that the teacher will probably recognise the emotional/behavioural difficulties first, and therefore the dyslexia will not be discovered for years, possibly never. The consequences of this for the education of the dyslexic are disastrous.
3.4.3 The problems of diagnosis

It has already been illustrated that defining dyslexia appears to be virtually impossible in a way that satisfies all of the people it concerns. This is, of course, at the expense of the world's dyslexics, who still have to live with the condition. But these definitions have a direct bearing on the way dyslexia is diagnosed.

It is generally assumed that children become literate at primary school; and that when they reach secondary school, they are reasonably literate. It is for this reason that reading progress is generally not measured in mainstream secondary education, only in those children who are in 'remedial' classes. Because of this, many dyslexics 'slip through the net', and are either struggling in mainstream classrooms with no attention to their particular problems, or are in remedial classes where they are not reaching their full intellectual potential because of their poor literacy skills. Early diagnosis is therefore of the utmost importance to the dyslexic's education.

Yet diagnosis of dyslexia is one of the most problematic educational issues. Gaining recognition and diagnosis of his disability is one of the most difficult processes a dyslexic child will go through. As has already been noted, dyslexia can be undiagnosed for many reasons. Additionally, some LEAs still do not acknowledge the existence of the syndrome; in Pumfrey and Reason's survey (1991), 47% of responding LEAs had not formulated a policy on SpLDs (Specific Learning Difficulties). As if all of these complicating factors were not enough, the diagnostic process itself can be highly criticised.

One researcher to do so is Stanovich (in Snowling & Thomson, 1991). What he regards as the fundamental flaw in the definitions and subsequent diagnosis based on these definitions of dyslexia is that of the emphasis on a
discrepancy between intellectual level (as measured by IQ), and actual performance. Miles (1974) stated that "An important criterion used in deciding whether or not the child is dyslexic is that of 'discrepancy'" (p61). He proposed that this discrepancy is what isolates the dyslexic from the generally slow learner:

There may be, however, other situations where the child's mistakes are 'dyslexic' in character . . . but where there is no serious discrepancy, here, I think, there are advantages in making the 'discrepancy criterion' a necessary condition for the diagnosis of dyslexia. (ibid).

Stanovich goes on to quote the legendary definition by the World Federation of Neurology (see p1), pointing out the emphasis on 'adequate intelligence' within this. Criticisms of this definition have already been discussed; Stanovich takes these further. Firstly, he quotes the National Joint Committee for Learning Disabilities, who were possibly the first to suggest that dyslexia "may co-occur with mental handicap or other handicapping conditions, but that the learning disability is not the direct result of these conditions" (Snowling & Thomson, 1992, p125). It is certainly the writer's view that this is so, and that therefore the discrepancy definition is not always applicable to retarded readers suspected of dyslexia. This of course only serves to make the diagnosis even more difficult. Stanovich proposes that comparing IQ test results to tests of reading ability in order to recognise this discrepancy are, for many dyslexics, in effect useless. He goes on to argue that IQ scores do not provide valid measures of intellectual potential in any child; they are simply:

. . . gross measures of current cognitive functioning. Therefore, we have been basing systems of educational classification in the area of reading disabilities on special claims of unique potential that are not psychometrically justifiable. (ibid, p127).
It is, of course, the very definition of dyslexia from the World Federation of Neurology which has determined the diagnosis of dyslexia in this way for so long. Yet how this discrepancy is to be measured is a fundamental question which, it appears, no-one involved in the diagnostic process has practically considered. But the many different problems which affect different dyslexics must invariably lead to very different levels of reading ability, and different areas of difficulty with the reading process, irrespective of how great the discrepancy between this and their respective IQ scores is. Surely it is the nature of these difficulties, not the discrepancy between the two scores, which determine whether a child is dyslexic? Use of the IQ discrepancy must invariably lead to particular subtypes of dyslexia being diagnosed most frequently, leading to stereotypes becoming acknowledged, and therefore incorrect diagnosis and help for many legitimate dyslexics. Those who believe in the discrepancy definition are of the opinion that a child must have a relatively high IQ score in order to 'qualify' as dyslexic. Yet this could not be further from the truth; in fact, it is in reality the case that dyslexia is wholly independent of IQ or intelligence, and a child with dyslexia therefore may or may not be of average or above-average intelligence. As Naidoo (1972) points out, "It is obvious that if aetiological factors such as genetic transmission and neurological dysfunction are implicated, specific dyslexia can occur at all levels of intelligence" (p16). The contention with acknowledgment of this fact is that it makes the already seemingly impossible task of diagnosis even more so. Yet at the same time, it is vitally important that dyslexia is regarded as a specific condition, not as general backward learning. Stanovich supports this need for more specific definition:
The point is this: do we really want to look for a group of poor readers who are qualitatively differentiable in terms of etiology and neurophysiology? ... Let us ... accept this as a goal whether we believe in it or not ... the conclusion is that we must move away from measures of abstract intelligence as bench marks for discrepancy analysis and towards more educationally relevant indices. In short, to get (the National Institute of Health's) neurologically differentiable groups we need an aptitude benchmark of more educational relevance than IQ - that of non-verbal IQ in particular. (ibid p131).

Using an IQ-discrepancy measurement system merely relegates dyslexics to the lowest educational status, implying the following equation:

\[
POTENTIAL + DYSLEXIA = EDUCATIONAL (IQ) + (literacy skills) = FAILURE
\]

where dyslexia is a greater negative value than the positive value of potential or IQ. This sets up negative attitudes from all parties concerned - teachers, parents, and dyslexic children themselves.

Stanovich proposes substituting listening comprehension for IQ testing. This, he believes, would be more educationally relevant in several ways. Firstly, if there is a discrepancy between how well children understand written and spoken material, they obviously have some difficulties with written language only. Second, children who are low on both scores would be suffering a general learning difficulty; and third, listening comprehension, he argues, would isolate a decoding problem (such as phonological or visual), and provide the knowledge for helping a particular individual. Stanovich does acknowledge that even this system has problems, such as standardisation, other complications such as learning difficulties, and others. Yet his is an improved system of diagnosis, if not perfect.

What is most important about Stanovich's arguments is that it is slowly being acknowledged that the IQ-reading ability discrepancy is not a satisfactory means of diagnosis. Many other factors attributable to dyslexia have to be taken
into account, but are at the moment sadly neglected. The implications of this for the education of dyslexic children are therefore not ideal whilst the discrepancy system of diagnosis continues to be used. What teachers therefore must become aware of are the differences between dyslexic children and generally backward readers, as their difficulties are quite different in origin, despite some similarities in manifestation.

3.4.4 Dyslexia versus Generally Backward Readers

At the very beginning of her book, Snowling (1987) notes the important fact that "Teachers have been particularly concerned that many 'dyslexic' signs can be observed in normal readers and in slow learners" (p5). This is particularly true in younger children who are just beginning to learn the whole written language system, and obvious 'dyslexic-like' mistakes will be frequent. Naidoo (1972) quotes Rabinovitch (1968), who classified reading disability into three subtypes according to aetiology:

1. A primary retardation; learning to read without definite evidence of brain damage from the history or as revealed by neurological examination. The defect lies in the capacity to deal with letters or words as symbols, appearing to reflect a basically disturbed pattern of neural organisation.
2. Reading retardation secondary to brain injury in which the capacity to learn to read is impaired by frank brain damage as manifested by clear-cut neurological deficits.
3. Reading retardation secondary to environmental factors in which the capacity to learn to read is intact but is given insufficient opportunity for the child to achieve a reading level appropriate to his mental age. (from Naidoo, 1972, p11)

Dyslexia appears to match the first of these categories, and it can therefore be seen that aetiologically, it is very different to a condition of generally backward reading in categories two and three. However, in a practical, classroom situation, the constitutional reasons why a child is not learning to read are not of
the greatest immediate importance. There is a great responsibility on teachers to not only determine that a child is not achieving her reading age, but also whether her difficulties are attributable to a condition such as dyslexia. Snowling quotes the work of Rutter et al (1970), who described children whose reading was below their age but was predicted as such against IQ score as generally backward readers, as opposed to children whose reading was below both their age and intellectual ability, who were described as specifically retarded readers. Although both groups in another study (Rutter & Yule, 1975) had difficulties in distinguishing left from right, and were about the same regarding speech and language difficulties, it was found that 77% of specifically retarded readers were male, as opposed to 54% of backward readers being male, with 46% female. Specifically retarded readers were also found to be more able in the complexity of their spoken language use; yet despite their higher IQ, they made less progress over a period of 4-5 years than generally backward readers.

These results would suggest that, in the classroom, the following differences may occur between retarded readers and generally backward readers. The retarded readers may express themselves and their ideas fluently in spoken language, but seem unable to do so on paper - they may indeed appear to be lazy when it comes to written work. The generally backward readers, however, may express themselves in very simple terms, less fluently, in a way which almost matches their written style. What may then appear to be unusual is that the retarded readers, although developing ideas and making progress verbally, will seem to make little or no progress in their written work; with the generally bad readers, progress in all areas will be slow. It is at this point that the dyslexics should start to be recognised. However, it must be recognised that even at this stage it can still be very difficult to isolate the
dyslexics from the generally slow learners, and teachers must therefore keep their minds open to all possibilities.

It is also important to look at the terms Rutter has used to distinguish the types of reading disorder. Snowling notes that Rutter is careful to mention that 'dyslexia' and 'specific reading retardation' should not be used synonymously, as 'specific reading retardation' is a term which encompasses more reading difficulties than that of dyslexia alone. However, the writer feel that the emphasis on 'reading' in each of these terms in both unsatisfactory and misleading. Dyslexics often learn to read well, while other areas of literacy development remain impaired. To therefore imply that the only learning difficulty that generally backward readers suffer from is in reading is misleading for teachers, and so the terms Rutter uses need revising if they are to be useful. However, the distinction between the two, fine as it is, is one that must be brought to the attention of all teachers if they are to recognise and help children with all literacy difficulties, not just the dyslexics.

3.4.5 The use of 'labels'

Identifying the difference between dyslexia and other forms of reading retardation or slow learning is complicated further by the variety of terms bandied about with varying degrees of reference to the syndrome. The associations that these terms hold are as important as the actual terms themselves in determining the attitudes of many towards afflicted children.

The term 'dyslexic' appears to have currently 'gone out of fashion'. In most schools, it is no longer acceptable to refer to any child as dyslexic. The word 'dyslexia', when broken down into its constituent parts of 'dys-' and 'lexis' (Greek), literally means 'difficulty with words', and must therefore be the most accurate description of the syndrome commonly used, inferring that dyslexics
have difficulties with words in all their forms - written, in reading and writing, and spoken, in speaking and listening. This is of course the case, in varying degrees in each individual dyslexic.

Dislike for this term seems to have arisen in particular amongst educationalists, seemingly because this term is not specific enough, and is therefore rather vague in its implications. There is also the old belief that dyslexia is a 'middle class' syndrome, associations of which educationalists will of course try to avoid. Teachers seem to be equally vague about the consequences for the dyslexic child, sometimes to the extent of ignoring their problems.

Changing the term to 'Specific Learning Difficulties' (or SpLDs) seems to suddenly endow teachers with an understanding of these difficulties. This is the popular term used by people working in education. It is useful in that as a universal term (within education, at least), it can be agreed upon as to what it means. Most teachers of special educational needs (in the writer's experience) refer to SpLDs, as if it is a completely different syndrome but with all the characteristic of dyslexia. The breakthrough comes when the syndrome is viewed in a different light, which seems to be achieved by calling dyslexia by a different name. However, parents and dyslexics alike may be offended by such a term, which appears to relegate dyslexics to the same educational categories as those children with completely different moderate and severe learning difficulties (MLDs and SLDs). The writer feels that such offence is justified, and regards it as necessary to reiterate that dyslexia is not a learning difficulty, but a problem with processing written symbols for meaning and understanding. The term Specific Learning Difficulties therefore seems inappropriate and very misleading, despite its popularity with educationalists. Dyslexics themselves generally prefer the term 'dyslexic' to any other.
Rutter's use of terms such as 'Specific Reading Retardation' merely serve to complicate the issue further. As has already been mentioned, Rutter does not propose that the terms 'dyslexic' and 'specific reading retardation' should be used synonymously. However, in the search for a 'suitable' term to describe the syndrome, many have to be considered, and some, especially teachers who perceive that dyslexia is not a learning difficulty may prefer this term. The criticism with this is, of course, that although this is closer to the mark, dyslexia is not just a difficulty with reading, and so again the description and subsequent implications are misleading. A misled teacher results not only in misled parents, but a misunderstood and subsequently educationally failed dyslexic.

The writer would propose that the syndrome is a specific language processing difficulty - or in simpler terms, a difficulty with words in all their forms - that is, dyslexial. Young and Tyre (1983) note that:

The danger of regarding dyslexia as a Specific Learning Difficulty in reading which is cognitive in essence, genetically determined and representing a specific maturational defect is that we won't see the children for the jargon. (p160)

What must therefore be overcome are the 'middle class' associations that the term holds, and a greater understanding by all those involved in the education of such children as to not just the difficulties involved, but the feelings and reactions of the children to their disability, in order to help them to firstly come to terms with it, and then to learn strategies for coping.

3.4.6 The Dyslexic Child in the Classroom

What teachers must be led to understand, above anything else about the syndrome, is how dyslexia affects children in their classrooms, and what the consequences both educationally and emotionally for those children are.

56
The dyslexic child may be semi- or hardly-literate, or at least behind compared with the progress his age-peers have made. The consequences of this are obvious. To take an extreme example, the child who cannot read and write will be unable to progress in his learning. Even a mild reading retardation will result in a delay in the progress of any child. It is not the case, of course, that the dyslexic child is unable to learn; but he does have distinct difficulties with aspects of literacy which obstruct his ability to learn. The ability to read and write is the basis of all thought and language concerned with the educational process.

Teachers must therefore realise that dyslexic children are handicapped at school, because of the very system of literacy upon which the conveying of information, and therefore learning, is based. Miles and Miles (1974, pp16-19) suggest that teachers need to adjust their standards to help the dyslexic to succeed in the classroom. It is true that adjustment is necessary, such as marking most work on content rather than spelling; but not to the extent that standards are lowered. The dyslexic child cannot escape having to learn how to spell just because he is dyslexic. This would indeed be failing the dyslexic even more. Teachers must never hold low expectations of pupils just because they are dyslexic, as this will invariably lead to academic failure by the children. Young and Tyre (1983) describe the next stage in the dyslexic's academic progress:

Children learn to be failures in reading, persist in using their inefficient strategies (p139) . . . They may well have learned a repertoire of avoidance techniques to conceal their difficulties. Some may hide behind the label of dyslexia or behind the fact that everyone knows they have reading difficulties. (p127)
The emotional consequences of this must have a damaging effect on the motivation of these children, which in turn limits their receptiveness to learning in the classroom. If this vicious circle is allowed to continue to turn, the implications for the academic progress of such children are obvious.

Miles and Gilroy (1986) describe what the process of writing an essay is like for dyslexics:

They will probably be well aware that it is necessary to plan the essay as a whole; yet there may be a dozen or more 'threads' or separate topics which have to be thought about and arranged in order. In addition, no progress will be possible until they have found the right words for saying what they want to say; and even when they have found them there is the danger that in writing them down their hand movements may get out of step with their thinking. As if all this was not enough, they then have to check whether the words are correctly spelled and whether there is correct paragraphing and punctuation. (p49)

All of these separate processes are far too great for the dyslexic to cope with at once. His written style may therefore appear to be rather abrupt and stilted, through trying to get as many ideas on paper as possible before they are forgotten. It should be evident from this that for a dyslexic child to complete a piece of work it takes much more time and effort than an unaffected child of average ability, because each stage of the process is so difficult. Teachers should therefore never underestimate the effort a dyslexic child has put into her work (without letting her abuse her disability as an excuse for not working!).

Dyslexics can often seem tired because of the effort that school requires of them; and at the end of the day, they have less work to show for this effort than most other children. This is additionally demoralising.

From the evidence given above, it would seem that any dyslexic child who actually makes it through their school years is doing well, irrespective of any achievements. Yet dyslexics can achieve at school, and go on to do so in
further and higher education, given the opportunities by their teachers and the education system as a whole.

So how can dyslexic children be best encouraged to succeed at school, and subsequently in their adult lives? Critchley and Critchley (1978, pp115-117) propose their 'Prognostic Pentagon', five factors which bode well for the future of a dyslexic, summarised as follows (from Pavlidis & Miles, 1981, p9):

1. "High Intellectual Calibre" - the higher the IQ, the more likely the dyslexic is to do well.
2. "Early Diagnosis" - the sooner diagnosis is made, the better. It is best that the condition is recognised for what it is at the age of 6 rather than 16.
3. "A sympathetic and understanding attitude on the part of both teachers and parents".
4. "The availability of skilled, sympathetic, intensive tuition" - individual teaching at the hands of the teacher who is trained and experienced in the modern techniques for helping dyslexics.
5. Lastly, and perhaps most importantly of all, a personality trait on the part of the patient; "Sheer dogged determination to succeed in mastering the difficult and boring chore of reading and spelling".

The more of these factors that are available to the dyslexic, the better the prognosis for that child's future development, argue Critchley and Critchley. Young and Tyre (op cit.) develop further the factors relating to the successful teaching of dyslexic pupils:

Frequently we have advised teachers of children with a variety of physical, intellectual and emotional difficulties to stop teaching them and...try to see the world from the children's standpoint . . . Ask the children...what would stimulate and motivate them, and...what they really want to learn . . .But whatever we do, we need to show them that we can teach and that they can learn. (p159)

Dyslexic children can learn - it is just that the tools by which most people learn are to some extent denied to them. It has been illustrated above that although many researchers in different fields are concerned about dyslexia and its
consequences for our children, more work remains to be done before the precise cause of dyslexia can be determined. Remediation processes must therefore be developed with the relatively restricted information we already have.

3.5 The ultimate problem

It is therefore up to the parents and teachers of dyslexic children to do what they can with the limited knowledge, skills and tools they possess. Much of the difficulty lies in the administration of diagnosis; yet the children at the same time have to deal with their disability. What must be of greatest importance is therefore to educate teachers, so that they understand as best as possible the difficulties of each dyslexic pupil, and are therefore able to help each child develop strengths and overcome weaknesses as best as possible. Improvements in the diagnostic process, and agreement of terminology to be used, would be a great help to teachers and parents alike. Yet calling one thing by another name does not change its nature. This is true of dyslexia; and so a starting point for the education of educationalists must be found.

What must be understood before teachers attempt to help dyslexic pupils is

1. how teachers feel about their dyslexic pupils, and
2. how dyslexic pupils perceive their teachers.

Without a mutual trust, no relationship between teacher and pupil can be sustained. Yet it is this relationship which is of greatest importance to the dyslexic child if they are to succeed in school. This relationship must therefore be examined in order to determine where, if anywhere, there are problems. If these and misunderstandings on both sides can be resolved, the dyslexic child has a greater chance of success both academically and emotionally at school, and subsequently for success during his adult life.
4. Introduction to Research

4.1 Dyslexia at secondary school

It has been illustrated that a vast amount has been written about dyslexia since it was first recognised just over one hundred years ago; about what it is, whether it exists, what is its cause, how dyslexics can be helped, and so on. Within this literature there are both contrasting and concordant views; ideas that are now out of date and those that are totally new concepts in the field. However, readers must view such research in light of the context in which it was written; teachers may therefore not find literature written by neurologists fifty years ago particularly helpful. It has been shown that research into dyslexia overlaps into several fields of study; medical, psychological, educational, to name but three. Orton was no doubt writing for those in the medical profession; Miles and Miles write for teachers and parents. Teachers and parents are without doubt the ones who need the most immediate information; dyslexia is primarily, in terms of the effect it will have on the everyday life of an affected child, an educational concern, with psychological consequences. Yet one of the most fundamental assumptions that is made about dyslexia is that it is diagnosed and dealt with at primary school; an assumption made, it would seem, by teachers and researchers alike. One of the most striking and important points to note about the literature on dyslexia is that it contains virtually no mention of dyslexia at secondary school: on the problems a dyslexic child encounters at secondary school; on identification and diagnosis of the child at secondary school who may be dyslexic; and most importantly, on how to help a dyslexic child throughout his secondary education.

This constitutes a fundamental void in the literature. It must not be assumed by parents, teachers or researchers that the problems which affect dyslexic children at secondary school are no different to those they faced during
their primary education. The environment, the organisation, the subjects taught and the expectations of parents and teachers are completely different, and are often difficult enough for a 'normal' child to come to terms with. The child with dyslexia, who, before she begins her secondary education, knows that she has difficulties in the classroom, must begin this stage of her education with a mixture of feelings, most of which will be negative and hostile, based on anticipation of further 'failure'. This may set the pattern of behaviour for the rest of her school life. The consequences for her education are obvious.

When she arrives at secondary school, the dyslexic child will find herself bombarded with many new tasks which are of particular difficulty to her; lists of instructions, new faces of teachers with new names to learn, a timetable to follow with an unfamiliar building to get used to, with a different classroom and a different teacher for each lesson of the day. If this were not daunting and confusing enough (even for a 'normal' child), there may not even be old close friends to turn to for reassurance, and the faces of many of the dyslexic's 'peers' will as yet be unfamiliar. Even if her dyslexia has been diagnosed, many of her teachers will probably be unaware of particular problems for a while, unless her condition is particularly severe. She may then be thrust into an unwelcome limelight because of the assumptions that are made about her because of her dyslexia and all of these situations confront her on her first day. The impression of secondary school that dyslexic children must form is that it has been designed to present a hurdle for them in every direction they turn; the psychological consequences on their motivation and attitude towards school could be damaging in respect of their entire school careers, and subsequently have repercussions into their adult lives. Note that the 'academic' side of secondary education and its related difficulties for dyslexics has yet to be mentioned.
The child who was not diagnosed as dyslexic at primary school will encounter further problems. Most teachers will probably not, unless the child is particularly bright, pick up on the fact that the difficulties she has are related to written language forms. They will not be helped, of course, by the behaviour of the dyslexic, who will probably do her utmost to conceal her difficulties, serving only to reinforce the teacher's conclusions that she suffers from more general learning difficulties. As has already been stated, but must be reinforced, the difficulties of the dyslexic are very different to the difficulties suffered by a slow learner; the help she therefore needs is also very different. Should she be relegated to remedial classes for generally slow learners, at worst, she may receive teaching that is contrary to her particular needs; at best, a teacher of special educational needs may suspect her difficulties are due to dyslexia, and take appropriate measures from there.

It must at this point be considered that special needs provisions vary considerably from one LEA to another, and from school to school within each LEA. The grant-maintained status of some schools means that SEN provisions will vary within these, and are entirely up to the school to decide upon. Such variations have serious consequences for pupils with dyslexia, which is generally the last educational handicap to be recognised (largely due to the 'exclusionary' nature of its definition), and which therefore has the lowest priority as a special educational need. Many LEAs still refuse to acknowledge that dyslexia is a special educational need, and therefore even the most severely dyslexic children cannot be awarded statements, which would at least entitle them to the help they so badly need. Such a statement is often the 'qualification' needed by children before they are awarded help in their schools. Conversely, without such a statement, many teachers refuse to believe that children have any sort of educational difficulty; they are therefore left at the bottom of the heap,
to struggle along as best as they can. Many of these 'strugglers' will be dyslexic to some degree. They are being wrongfully deprived of the quality of education to which they are entitled.

Some LEAs and schools refuse to acknowledge the meaning of the word 'dyslexia', preferring instead to use the term 'Specific Learning Difficulties' (SpLDs), which, in the author's experience, refers only to those pupils whose literacy difficulties stand out when compared to IQ test scores - that is, they are of above average ability as measured by intelligence. If, however, as also seems the case from the author's experience, pupils with dyslexia fall right across the ability range, where does this label and categorisation (and subsequent stereotypes) leave them? It has already been illustrated that diagnosis of dyslexia is problematic enough in those children who would appear to display most of the 'signs' of the syndrome; how is it to be carried out amongst the borderline cases, to be noticed by teachers who see the child two or three times per week, and who expect most children to be literate by the time they reach the secondary system?

4.2 Dyslexia and the mainstream teacher

It must become apparent that the role of the mainstream subject teacher in the education of dyslexic pupils must not be underestimated. It is the mainstream teacher who will be the first to recognise any child with difficulties in her classroom, and who must assess the degree of severity and the particular nature of these difficulties before deciding whether the child needs specific remedial help (if the child is not already receiving such due to reports from primary school). Yet the mainstream teacher's job does not end there; he will still hold the responsibility of teaching that child a particular subject several times per week. Responsibility for that child's progress in his lessons cannot be
held to the SEN teacher. At secondary level, the issue of streaming is an additionally complicating factor for the education of dyslexics; should a dyslexic child be placed in a stream according to his intelligence (as measured by IQ), irrespective of his literacy abilities which may hold him back; or according to his literacy skills, which may relegate him to a stream where his ability is by far underestimated. Both situations are far from ideal, and may leave him feeling frustrated at his inability to cope one way or the other. Conversely, groups may be arranged according to the idea of 'mixed ability' right through to exam level in some secondary schools. Yet again, the dyslexic child does not fit into any particular 'category' of pupil; the mainstream teacher therefore has the additional task of constructing schemes of work to cater for the dyslexic's ability, but allowing for the literacy difficulties he has, whilst attempting to develop these at the same time (in an ideal world, anyway!). The responsibility of the mainstream teacher towards all pupils is great at the best of times; ensuring that she caters for the strengths and weaknesses of the dyslexic is an additional responsibility, that must nevertheless be recognised.

What must therefore be examined, before it can be considered how teachers can be trained to best help the dyslexic children they teach, are the attitudes of mainstream teachers to dyslexia and dyslexic pupils in their classes; and also, the attitudes of dyslexic pupils towards their teachers, in order to assess the relationship between the two parties, and where areas of conflict arise which are detrimental to the education of dyslexic children. Only when such attitudes have been recognised can teachers be educated to equip them with the skills to help dyslexic children to get more out of their education, and to increase the prospects for their future successes.
4.2.1 Teachers and Attitudes

The attitudes teachers hold towards their pupils are of fundamental importance, as they will determine how each teacher reacts to and interacts with each pupil. They will also determine a teacher's expectations of and relationships with the children they teach. Such relationships form the recipe for educational success or failure for most pupils. Attitudes are therefore potentially very dangerous, as they can be 'infectious' - an attitude from one teacher may be passed on to another by word of mouth, and the subsequent expectations of the next teacher are shaped before he gets to know the pupil. So what is an attitude, and what makes it dangerous?

Fox (1993) states that attitude is made up of knowledge, feelings and behaviour: "It is the feelings that distinguish an attitude from simply knowledge or behaviour" (p88). He explains that attitudes are necessary for us to make sense of the world, and that we all hold attitudes. However, such categorisation in the classroom leads to assumptions being made about pupils. In some ways these assumptions can be positive; but they are often negative, with consequences for the education of a particular pupil:

Consider, however, a poor reader who is categorised by the teacher as having limited ability in all areas. The categorisation process in this instance may effectively distort the entire education that this pupil receives. (p89)

Once a teacher has made assumptions about a pupil, her attitude towards that pupil will be formed. If the assumptions are negative, it will follow that the attitude will be negative. This, states Fox, becomes dangerous when the attitude leads to stereotypes and the stereotyping results in prejudice towards individuals because they display characteristics of a certain stereotype. This process of stereotyping and prejudice must have repercussions for the dyslexic child. The prevailing attitudes of society towards dyslexia even today are that it
either does not exist, or is just a 'middle class syndrome' - again implying that it is just another word for general slow learning amongst the middle class. It must be acknowledged that many teachers are beginning to accept dyslexia as a syndrome in its own right, but remain largely ignorant as to what it is and what the implications within the classroom are. Most believe that it occurs in brighter children (as defined by IQ measurement), and that it means that dyslexics just have problems with reading and writing. The prevailing attitudes therefore lead to stereotypes of what dyslexics are, of what their intelligence level is, and that that they will always have problems with reading and writing, which will always restrict their education. This stereotype ultimately leads to prejudice, taking the form of the low expectations that teachers have of pupils with dyslexia in terms of their academic progress. Thus, the condition is largely ignored by mainstream subject teachers, who expect a dyslexic pupil to either be placed with a group of pupils with ability to match the dyslexic's written standard, or with the SEN teacher for help. Ultimately, many mainstream teachers, in practice, do not know how to help a dyslexic child with his difficulties, and therefore wash their hands of any involvement above their obligations as a subject teacher. This is largely through ignorance, but such ignorance breeds negative attitudes and stereotypes, which in the long term is not helping the education of dyslexic children, nor, ultimately, their psychological well-being and their prospects for the future.

What must therefore be assessed before any teacher education can be successfully attempted, are the attitudes of teachers towards their dyslexic pupils. Fox points out that education rarely helps to diminish attitudes; but if the underlying reasons for these attitudes can be considered once the general prevailing attitudes are known, the education of teachers towards understanding dyslexia and its associated problems should become easier, and ultimately be
more successful. What would also aid our understanding of the factors affecting the education of dyslexic pupils is an assessment of the attitudes of dyslexic pupils towards their teachers. By having some perception of attitudes on both sides, teachers can then go on to understand more clearly the needs of the dyslexic pupils whose education is their responsibility.

4.2.2 Pupils and Attitudes

Teaching is a two-way process; it is not merely a matter of the teacher giving out her knowledge to the pupils. Learning is an interactive process; therefore, the relationship between the two parties of the process, that is teacher and pupil, is of fundamental importance to this process. If a teacher and pupil do not have a good relationship, the motivation of the teacher to help the pupil to learn will be severely restricted. Of course, such relationships are inevitable; there are bound to be personality clashes where so many people are involved in such a restricted environment as a school. However, if a teacher's approach to a child is based on a preconceived stereotype, the child will be at a disadvantage immediately. It is therefore important that teachers frequently self-evaluate in terms of their attitudes to and relationships with their pupils. Yet such a task may require an objective third party - it must never be assumed that a teacher's judgment of a pupil is always correct - teachers are human too! Most teachers probably have little idea of how their pupils perceive them, and a study into such with pupils of all ability ranges would be useful to teachers in the evaluation of their classroom relationships. However, the writer feels that dyslexic pupils' perceptions of their teachers are particularly important to understand. No-one but a dyslexic can understand the frustration felt at not being able to express what is meant, at not being understood for what you really
are, for being labelled and therefore having assumptions made irrespective of individual ability.

It would therefore be useful, if not revelatory, for teachers to understand how they come across to their pupils; and if dyslexic pupils perceive their pupils in a different light than their peers perceive them, it may be that teachers are reacting, albeit subconsciously, in a different manner to dyslexics purely due to their label 'dyslexia'. Such a study has been carried out by Carolyn Hicks (1990), which assessed the perceptions of 'dyslexic', 'retarded' and 'normal' readers to their real and ideal class teachers. The study was carried out on eight children in each group, all of whom were in their final year at primary school. She found that 'normal' and retarded readers perceived their real class teacher in a similar way, but the dyslexic children did not agree with those perceptions. The dyslexic children did, however, agree with the 'normal' readers as to what their ideas of an 'ideal' teacher would be. The dyslexic children therefore had a very different idea of what their 'ideal' teacher should be like in comparison with how they perceived their actual teacher. It would seem that the dyslexic children are somewhat dissatisfied with their actual experience in the classroom. What must now be considered is whether the classroom environment is equally dissatisfactory when dyslexic pupils move to secondary school; and if this is so, why, and what can be done to alleviate the problem?

4.3 The aims of the research

The aims of this research are therefore fourfold. First, is to assess the way that mainstream secondary teachers receive and subsequently react to the dyslexic pupils in their classes; second, is to assess how dyslexic pupils perceive their teachers in comparison with the perceptions that 'normal' and 'retarded' readers hold of their teachers; third, is to assess the degree of
concordance between 'actual' and 'ideal' teacher perceptions within each group of readers which, Hicks explains, will provide "a measure of each group's satisfaction with current classroom experience". The final part is to assess the degree of agreement between teachers' own claims of their attitudes towards dyslexics, and how dyslexics perceive this is put into practice.

5. Method

There are two parts to the method of this research: a questionnaire for teachers, followed by a questionnaire for pupils, based on Carolyn Hicks' experiment.

5.1 Teachers' questionnaire

This questionnaire was administered to 108 mainstream secondary school teachers. The age, experience and subjects taught by these were completely random, in order to achieve as broad a picture as possible of the 'typical' attitudes of teachers towards dyslexic pupils. The questionnaire was divided into three sections.

Section one contained questions about the teacher and his/her teaching experience in particular to determine whether the teachers have taught dyslexic pupils, how they perceive dyslexia from such experiences, and whether or not they felt that they understood the difficulties of dyslexia, and whether they made attempts to help the dyslexic children to cope with the subject despite these difficulties.

Section two was made up of generalised statements about dyslexia, to which the teachers had to state the degree to which they agreed or disagreed with them. These questions were phrased in such as way as to hopefully distract teachers from thinking that a particular response was the 'correct' one;
some of these questions were therefore somewhat provocative in content, although this did not mean that they expressed the opinion of the writer - far from it. One teacher who had a dyslexic daughter stated that he had taken offence to one question in particular; it must be stressed that this was not intended on the part of the writer, and should not have been construed as being the writer's own held opinion. The aim with this section was to extract the teachers' opinions about dyslexia without relating the statements to their own classroom practices, and therefore hopefully achieving more truthful opinions than a more personal approach would have done.

Section three consisted of four open-response sentences. These were sentences which were started, but left open for teachers to complete in any way that they wished. The aim of this section was to allow teachers to make any important points which the rigidity of the set response sections did not permit. It was also to allow for any points which the writer may have overlooked in setting the responses to earlier questions, and to give teachers the opportunity to say what they felt was important to note about dyslexic pupils.

5.2 Pupils' questionnaire

The pupils' questionnaire was based on the 'description cards' used by Hicks in her experiment. It was decided that Hicks' experiment would be replicated on secondary school pupils for a number of reasons. The main and most obvious reason was to assess whether dyslexic pupils felt their classroom experience improved, was equally as unsatisfactory or worse at secondary school; this was felt to be particularly important to assess as the environment is so different to that of primary school. It was also felt that Hicks' samples were rather small, as she used only eight children within each of the three groups of
subjects. The experiment therefore required replicating in order to test the validity of assumptions made according to her results.

However, several revisions were made to the original experiment. The experiment was carried out on Year 10 secondary schoolchildren, aged 14 to 15 years, who were all from the same school (to ensure identification of groups based on the same criteria)\(^1\). It was administered to three groups of pupils, who generally matched Hicks' groups. The pupils in these groups were selected according to the judgements of the school's senior SEN teacher, after consultation with subject teachers. The three groups consisted of: 1. pupils with SpLDs (dyslexic) as defined by Miles' criteria (1974), of a discrepancy between IQ (at least average) and reading age, plus three or four other 'signs' (see Literature Review); 2. Generally Slow Learners (the writer's preferred term), characterised and distinguished from the dyslexics by their below average intelligence; and 3. all other pupils not included in these two groups, considered to be of at least average intelligence and reading ability, and referred to as 'average+ pupils'. However, these groups differed from Hicks' in respect of the numbers involved in each. It was felt that the eight subjects used in Hicks' experiment did not reflect the perceptions of the overall pupil population, and in that respect the results were somewhat invalid. It was therefore decided to conduct this experiment over pupils in a year 10 population of one secondary school; 134 pupils took part. Year 10 form tutors were asked to administer the questionnaires; some did not wish either themselves or their pupils to be involved, and so the spread of the three groups across the school population was not as representative as desired. Of the pupils who did take part, 16 fell into the dyslexic group, 10 were generally slow learners, and the remaining 108 pupils were regarded as being at least average readers. This attempted to provide results which would represent the perceptions of each group of pupils as
a proportion of the population they represent. It is estimated that 3-4% of the population are dyslexic, 18% are estimated to have SENs, and the remainder are average or above; it would therefore seem sensible to gather numbers of results from each group according to the proportion of the school population they represent. Although the dyslexic pupils outnumber the generally slow learners in this experiment, it was felt that these numbers were more representative of each population group than Hicks' samples. There may be significance in eight dyslexic pupils showing similar perceptions of their teachers, but they may make up 90% of the school's population of dyslexics. Eight 'normal' readers, on the other hand, could easily be eight who do not like a particular teacher, and only represent 2% of the school's population of 'normal' readers; they are not, therefore, reflecting the perceptions of all of those they represent.

Hicks assessed the teachers concerned in her experiment according to the Jones (1969) Teacher Competence Inventory in order to match her group of teachers. It was felt that for the purposes of this experiment, such an assessment of teachers would be both difficult and unnecessary as, unlike the primary children, these pupils will have a different teacher for every subject. It was also felt it was important to assess the reactions of pupils towards all of their teachers, to assess whether there were any particular qualities which were perceived to recur in the majority of teachers, in either a positive or negative light.

The structure of secondary education as opposed to primary meant that another change had to be made to the experiment. As has been noted, different teachers are responsible for different subjects; it was therefore important to recognise that asking pupils to describe 'a' teacher was not specific enough, and could lead to results based on a summary of all the teachers who teach each child. It was therefore decided that pupils should be asked to describe 1. their
favourite teacher, 2. their least favourite teacher, and 3. their 'ideal' teacher. It was felt that from this it would be possible to determine even more clearly whether dyslexic pupils' perceptions of their teachers were different to their peers' perceptions. It would then be possible to focus on exactly why dyslexics (and all other pupils) did and did not like their teachers; and whether any 'improvements' could be made, according to their 'ideal' teacher descriptions.

The different age of the pupils also meant that it was necessary to change some of the teacher descriptions that Hicks used. Although six of the nine original descriptions of teacher behaviour were retained, it was felt that the descriptions "My teacher is interested in me"; "My teacher writes nice things on my work"; and "My teacher is fair" were inappropriate for 14-15 year olds. These were removed, leaving the following six descriptions:

- My teacher has a sense of humour.
- My teacher is helpful. (Revised; the original read "kind and helpful")
- My teacher controls the class well.
- My teacher doesn't shout a lot.
- My teacher gives me interesting work.
- My teacher explains things well.

The description "My teacher listens to my problems" was added to this list, as it was felt this may be pertinent to a dyslexic's 'ideal' teacher, and therefore its score regarding actual teacher behaviour would be important to note.

The experiment was administered in questionnaire form, not on a one-to-one basis as in Hicks' experiment. This was mainly because of the greater number of pupils involved, but also to avoid segregation of the generally slow learners and dyslexic pupils. It was carried out in pastoral form periods, with form tutors explaining the instructions, which were printed clearly at the
beginning of each section. The procedure was the same for each section. The pupils were asked to read each list of descriptions, and to decide which one best described either the particular teacher or themselves. This description was numbered 1. They were then instructed to read through the list again, and decide which was the next best description, to be numbered 2. The instructions asked the pupils to continue to do so until they had numbered all the descriptions in each section. The descriptions were ordered randomly, but kept in the same order for each teacher description to avoid pupils attempting to provide the 'right' answers. Pupils were assured that teachers would not see the results, and that they were not for teachers' use.

1 One Comprehensive, maintained secondary school was involved in the survey, from an education authority which, at the time, did not provide statements of special educational need for pupils with dyslexia.
6. Results
6.1 Teacher questionnaire: Results

6.1.1 Section 1: About you as a teacher.

This section of the questionnaire was designed to attempt to find out about the teachers' attitudes towards the dyslexic pupils they have in their classrooms; how the teachers feel about them, how they go about teaching them, and any particular problems they associate with the dyslexic pupils, in terms of both their own teaching and the dyslexics' learning.

All results are given as a percentage of responding teachers.
1. Do you have pupils with special educational needs in your teaching groups?

![Bar chart showing responses](image)

2. Are you aware of what each of their special educational needs are?

![Bar chart showing responses](image)

Ninety-four percent of responding mainstream subject teachers stated that they do have pupils with special educational needs in their teaching groups. This has several implications. Firstly, it is encouraging to see that so many teachers are
aware that some of their pupils have special educational needs of one sort or another; but the second implication is that there are possibly more children in our schools with special educational needs than previously thought. If Warnock's '20%' is correct, then statistically there should be four to five pupils at any one time in every classroom who have some type of special educational need. This has implications for the small, but significant number (6%) of teachers who did not answer 'Yes' to this question. Two per cent said categorically that they did not have any pupils with special educational needs in any of their teaching groups. This is very difficult to believe, and prompts the question 'What do teachers understand by the term 'special educational need'? There must be many different responses to this, indicating the confusion teachers feel over the whole issue of special educational needs. This must have serious consequences for the education of all children. The teachers who answered 'Don't know' or did not answer are the ones who would most possibly ask this very question - again, emphasizing the confusion amongst teachers as to the identification of special educational needs.

Of the 94% who do teach pupils with special educational needs, only 33% knew what the special needs of all of these pupils were. Fifty-nine per cent said that they knew what the special needs of some of their pupils were, while 4% admitted that they were not aware of what these special needs were in any of the pupils. The implications of these results do not bode well for the pupils with special educational needs. In only one-third of classes will they be taught by a teacher who is aware of every individual's particular areas of difficulty. The conclusions that can be drawn from this are that for the majority of mainstream subject teachers, the special needs of a minority of pupils are not taken into consideration during the planning and delivery of lessons. Many teachers may argue against this, but if teachers are not aware of the special needs of their
pupils, they cannot cater for them in their delivery of the curriculum. The majority of pupils with special educational needs are therefore not receiving an education which is appropriate for them, and to which they are entitled. Questions raised from this are: 1. Who is responsible for this lack of knowledge about pupils by teachers, and 2. Why are the recommendations dating from the Warnock report still not being put into practice?
3. Do you have any pupils with Dyslexia/Specific Learning Difficulties in any of your teaching groups?

The fact that 70% of teachers said that they do have pupils with dyslexia in their teaching groups is very encouraging in that it shows that most teachers are aware of the existence of dyslexia, even if they know nothing more about the syndrome. However, the fact that 22% of teachers answered 'Don't know' indicates that teachers are still not fully aware of what dyslexia is, let alone its effects on the child in the classroom. One possible explanation for this result is that although some teachers may feel that a few of their pupils may be dyslexic, if such pupils have not previously been formally diagnosed the teachers are reluctant to 'label' them. What must also be taken into account is that the wording of the question uses the terms 'Dyslexia' and 'Specific Learning Difficulties' (SpLDs) synonymously, because many teachers do not acknowledge the existence of dyslexia, yet do recognise SpLDs. In the writer's experience teachers often use 'SpLDs' as a much wider ranging term which includes other
difficulties as well as dyslexia. This may account for the high number who answered 'Yes', yet who are nevertheless still not adequately informed about dyslexia.
4. What term do you use to describe the syndrome, and what is your reason for using this particular term?

![Bar chart showing percentages of respondents using different terms for syndrome]

It is interesting to see that approximately the same number of teachers use the terms 'Dyslexia' and 'SpLDs' - the writer expected that significantly more would use 'SpLDs', as 'Dyslexia' is currently frowned upon in educational use. These
results are possibly a reflection of the fact that the term 'dyslexia' identifies the syndrome as one distinct from any other type of special educational need, which confirms its use in an educational context. However, 11% of teachers stated that they use other terms to describe the syndrome: "just a learning difficulty", "a variety including the above", and "a physical/visual impairment" amongst these, while several stated "no term used". As discussed in the review of the literature, one of the major obstacles to the diagnosis of dyslexia is the fact that a single 'name' for the syndrome cannot be agreed upon, which leads to different interpretations of the syndrome, and so confusion amongst teachers as to what 'label' to give to a child whom they suspect as dyslexic. Different labels have different associations to different people; one teacher who might regard a child as dyslexic yet labels her as having 'specific reading retardation' (to use a term concocted by Rutter) may send a completely different concept of that child's difficulties to the next teacher, and so on. The use of so many labels for the same syndrome only serves to detract from concern for its practical classroom consequences, and the education of the dyslexic child will subsequently suffer.

Most of the respondents to each answer said that their use of a term was that of their own personal preference. However, it must be noted that less users of 'dyslexia' responded to 'school policy' as the reason for using that particular term. This evidence backs up the earlier statement that, within schools, the use of the term 'dyslexia' seems to be discouraged. However, surprisingly more teachers stated that Local Education Authority (LEA) policy supported the use of 'dyslexia' than 'SpLDs'. This is surprising because two of the three schools in which this survey took place are in education authorities which do not provide statements for dyslexic children. Other reasons were provided for particular terms being used; most of these were just "habit/ always known it as this", although one or two did state that they used terms which had appeared in
articles that had been read. It can therefore be seen that not only is there a
great divergence in the terms used to describe the syndrome, there are several
reasons for the use of these terms. The result must be more confusion for
teachers over the whole issue of dyslexia, which of course has repercussions for
the dyslexic children they teach.
5. In your experience, how do most teachers perceive dyslexia?

The range of different ways that dyslexia is perceived is illustrated by the answers to this question. Fifty-nine per cent of teachers thought that most of their profession see dyslexia as being 'general literacy problems', which is encouraging from the point of view of the affected pupils, as it reflects that attitudes have changed from regarding dyslexia as purely a reading difficulty. However, 18% still think that teachers regard dyslexia as just this, which will affect the way such teachers perceive the ability and actual performance of dyslexics in the classroom. Even more alarming is the fact that 9% thought that most teachers regard dyslexics as just slow learners; such a misconception can lead to entirely inappropriate teaching of a dyslexic child, who is regarded as something which he is not. 'Other' perceptions were all based on 'writing problems'. It is hardly surprising that so many dyslexics remain undiagnosed throughout much if not all of their school careers, if the ones who are most likely to recognize it (teachers) are so ill-informed as to what being dyslexic means.
Of the 30% of teachers who stated that they treat dyslexic pupils 'the same as all other pupils', one or two qualified this with the statement "as individuals". This puts a slightly different perspective on the interpretation of the results. This result could be taken to mean that a. teachers do not treat dyslexic pupils any differently to all other pupils, or b. dyslexic pupils are catered for as individuals, as every other child is. In the writer's opinion it is the first of these possibilities that most teachers who made this reply meant; by ticking this box they have indicated that they do not make special provisions for dyslexic individuals in their classes. What is more significant is the fact that 56% of teachers treat dyslexic pupils the same as other pupils with special educational needs. This will have more negative implications than positive; although it indicates that teachers do regard dyslexia as a special educational need, it also shows that they do not understand dyslexia as a specific type of special educational need. Stereotypes of special educational needs do not always lead to appropriate help for pupils who have those needs; they can be twice as
disastrous for the dyslexic, who will require educational provisions which are very different to those required by, for example, the generally slow learner.

Only just over 10% said they treated dyslexics completely differently. Although the writer is not suggesting that dyslexics should have special treatment, it must be acknowledged that dyslexia as a special educational need is unlike any other, and dyslexic pupils must have teaching that is relevant to their needs.
7. Do you find that dyslexic pupils work well orally in class?

8. Do you feel that the standard of written work by dyslexic pupils does not always reflect their ability?
9. Do you feel that dyslexic pupils try to avoid tasks involving reading and writing?

10. Do you find that dyslexic pupils are generally of average or above average intelligence?

These questions were asked in order to find out whether the
'stereotypical' dyslexic exists in mainstream classrooms (stereotype of dyslexic = good spoken language ability, poor reading and written language skills, and average or above-average intelligence). These results indicate that this stereotypical dyslexic does exist in classrooms: altogether 86% of teachers said that dyslexic pupils tend to work well orally in class; 85% overall felt that the standard of written work by dyslexics does not reflect their ability; 78% in total felt that dyslexic pupils try to avoid tasks involving reading and writing; and 83% overall said they found that dyslexic pupils are generally of average or above-average intelligence. There are several reasons that may account for these results. The most obvious is that most dyslexic pupils do show these characteristics in the classroom situation. However, there are other factors which influence teachers' perceptions of dyslexic pupils. To take one bone of contention for the writer, the diagnostic process excludes children of below average intelligence; teachers are therefore led to believe that to be dyslexic, a child must be of average or above-average intelligence. Secondly, expectations of dyslexic pupils may be coloured by stereotypes, which result in pupils being treated according to these stereotypes, not their individual needs. Although many of these traits may be characteristic of dyslexics, the attitudes of teachers must have been influenced by stereotypes and the diagnostic process, leading to many dyslexics remaining unidentified purely because they do not 'fit' these preconceptions. Further, teaching methods and resources will also be tailored towards the needs of these stereotypes, not the needs of individuals.
11. Do you feel that you understand the problems which are specific to dyslexia?

12. Do you attempt to make provisions for these difficulties within your own lessons?
It is encouraging to see that 59% of teachers feel that they understand some of the problems which are specific to dyslexia. With so many different types of special educational need and their different manifestations in individuals, no teacher can be expected to fully understand all of the special educational needs which their pupils have. It is interesting to note that 6% feel that they thoroughly understand the difficulties of the dyslexic, while a further 17% feel they understand most of the problems. What must be considered from these results is to what extent is the information that teachers have about dyslexia correct? Teachers may feel they understand some of the issues relating to dyslexia purely through the stereotypes that surround the syndrome. The fact that 15% said that they do not understand dyslexia as distinct from any other special educational need serves to emphasize that teachers do not have adequate information about dyslexia in order to be able to deal with it when it affects pupils in their classrooms.

Despite this lack of information and overall understanding of the issue, it would seem that teachers do try to make provisions for dyslexic pupils in their classrooms at least sometimes. However, only 15% stated that they always make provisions for dyslexic pupils; in 85% of mainstream lessons, therefore, there is a good chance that dyslexics are expected to cope and keep up to standard with all other pupils. What must also be questioned are the nature of these provisions, and their appropriateness to the educational needs of the dyslexic pupils.

It was surprising to see that only 6% of teachers were honest enough to answer 'never'; however, if the teachers who did not answer are added to this (assuming that because they did not answer, they do not attempt to make such provisions), the total of teachers who never attempt to help dyslexic pupils with
their particular difficulties is 15%. How such children are meant to progress in an environment where their problems are ignored is not conceivable.
6.1.2 Section 2: Statements.

This section was designed to take away the emphasis from the teachers' personal classroom interaction with dyslexics, in order to find out what teacher attitudes towards dyslexic pupils really are.
1. There is no such thing as 'dyslexia'.

2. Dyslexia is a special educational need.
Question 1 was intended to be provocative. Altogether, 85% of teachers disagreed with this statement; more significant, perhaps, are the opinions of the other 15%; if even teachers do not acknowledge that dyslexia exists, what chance do affected children have in their classrooms of firstly, identification of their difficulties, and subsequently, appropriate teaching? It is interesting to note that one of the respondents told the writer: "My daughter is dyslexic - there's no such thing as dyslexia really, it's just learning difficulties". If a teacher who is also a parent of a dyslexic is this confused, it is not surprising that so many others in the profession are also.

The answers to question 2 are, in light of those given to question 1, confusing. This time, 88% felt that dyslexia is a special educational need - this number must therefore include some of those who had just stated that dyslexia does not exist! This contradiction only serves to prove the enormous conflict and amount of information that teachers have about dyslexia.
3. A dyslexic pupil is no different to any other slow learner.

From the point of view of the dyslexic, it is encouraging to see that overall 82% of teachers do not regard dyslexics as just more 'slow learners' with a different label. Yet to refer back to question 6 of section 1, the majority still treat dyslexic pupils the same as all other pupils with special educational needs. Yet again, it would appear that lack of information and training are the main cause of misunderstanding amongst teachers.
4. Teachers have low expectations of pupils with dyslexia.

There were mixed feelings about this question; overall, the total who agreed with this statement had the greatest response (39%), while approximately equal proportions of teachers surveyed either disagreed or did not feel strongly either way. It would seem that although most teachers would agree that dyslexia is a special educational need, their expectations of dyslexic pupils vary widely. This will, of course, have serious consequences for the education of affected children. What must be considered is whether those who do have low expectations base them purely on the ability and problems of a child, on just the label 'dyslexia', or also on their own capacities for teaching a child with such a disorder.
5. Dyslexic pupils cause additional problems for the teacher in terms of their behaviour in class.

The results of this question were unexpected, as they do not match the common portrayal of the dyslexic who has behavioural problems (which are generally caused by his desire to camouflage his difficulties by bad behaviour, or as a result of the frustration felt at being misunderstood, and unable to complete written tasks within the allocated time). By far the greatest opinion in this survey was an impartial one, indicating that dyslexic pupils seem no more problematic in terms of their behaviour than any other pupils. In fact, more teachers disagreed than agreed with this statement. One explanation may be that behavioural problems are associated with more severely affected dyslexics, who are a minority within a minority (4% of dyslexics are severely affected), and who will therefore not be a common occurrence in the mainstream classroom.
6. It is important to help dyslexic children with their literacy skills in mainstream classes, as well as teach them knowledge of the subject.

7. The mainstream teacher can make a significant contribution towards helping dyslexic children to overcome many of their learning difficulties.
8. It is the responsibility of the mainstream teacher to help dyslexic pupils to overcome their learning difficulties.

Questions 6, 7 and 8 are linked in that they directly concern the dyslexic child in the mainstream classroom, which, of course, directly affects the mainstream classroom teacher.

In question 6, 74% in total agreed that it is important to help dyslexic children with their literacy skills in mainstream classes. Although this is a very positive attitude, it does not, of course, demonstrate how many teachers actually put this philosophy into practice.

Again, a positive attitude on the philosophy of question 7 is apparent, with 72% of teachers overall agreeing that the mainstream teacher can make a significant contribution towards helping dyslexic children to overcome their learning difficulties. However, the response changed dramatically in question 8, with only 43% agreeing that it is the responsibility of the mainstream teacher to help dyslexic pupils to overcome their learning difficulties. More significant is the fact that 35% of teachers would not commit themselves to answering either...
way, and 22% overall disagreed. It would seem that although teachers may agree with the theory behind their role in helping dyslexic children with their particular difficulties, in practice they are much more negative, and less inclined to feel that the education of dyslexic children is their duty, the same as it is to all other children in their teaching groups.
6.1.3 Section 3: Open-response questions.

This section of the questionnaire allowed teachers to express their thoughts in their own words, which the structure of the previous two sections had not. Less than 40% of responding teachers completed this section. However, the comments from the teachers who did provided an interesting insight into their real feelings about the issue. A selection of responses to each prompted sentence will be used to illustrate teachers’ thoughts and perceptions about dyslexia.

1. Dyslexia is . . .

Many of the responses were along the lines of “the inability to read words”; “a specific difficulty affecting literacy”; “word-blindness”. Others, however, proved that some teachers are more perceptive of the syndrome and its difficulties for affected children:

"... another term for teacher failure."

"... an often convenient way of dismissing some pupils' problems."

"... not fully understood by many teachers; a term overused by the general public."

"... insufficiently recognised in the school in which I teach."

"... a frustrating problem for the sufferer, often unrecognised by teachers."

It would seem that some teachers do recognise that they do not know enough about the syndrome, that there is much that they can do to help their dyslexic pupils, and that they understand something of the feelings of dyslexic children. These were, of course, the minority of answers; more teachers need to be made aware of the above before they can also help such children.
2. Dyslexic pupils are...

There were no 'trends' apparent in these answers; the teachers who had taken the trouble to answer this section had obviously considered the issue very carefully. Some responded:

"...normal."
"... often ignored and left to struggle."
"... to be encouraged to develop a positive attitude towards their difficulties."
"... probably misunderstood because of the complexity of the term."
"... usually underachieving because they do not get the help they need."
"... as varied as other pupils; some will try to overcome disadvantage - others use it as an excuse."
"... often bright."

These teachers are recognising both the positive and negative aspects of dyslexic children; it is important that the strengths of such children are recognised, as well as their weaknesses, so that both can be built and improved upon. Again, however, the need for more teacher awareness is obvious.

3. Dyslexic pupils in the mainstream classroom...

Many of the responses to this sentence stressed that teachers felt specialist support was necessary; that the teachers themselves could not provide all of the support that dyslexic pupils require. Other responses were very mixed:
"... have the same rights to entitlement as everyone else."
"... could be encouraged by using different techniques than most
teachers use."
"... is no guarantee of acceptable progress."
"... another challenge!"
"... would be a problem."
"... are in danger of missing out on their education."
"... can create difficulties for the teacher in a large class with no
support."

Although these teachers may have demonstrated some understanding for the
problems of dyslexic children, it would seem that they do not feel confident about
their ability to help dyslexics specifically within their own lessons. One important
point has been identified by one of these teachers only; that teachers need to
think about their classroom methods, and be receptive to adopting new
techniques for accommodating dyslexic pupils into their classrooms. Teachers
obviously appreciate that dyslexic pupils are entitled to their place in the
mainstream classroom; they need the knowledge and skills to be able to help
these children.

4. Teaching pupils with dyslexia is . . .

One-third of all responses to this sentence included the word 'difficult' -
illustrating just how inadequately prepared for this aspect of the job teachers
are. Most of the replies were generally negative:

105
"... something I have had little experience of."

"... an additional burden for the over-pressed teacher."

"... difficult for staff who have no real understanding of the problems involved."

"... a highly skilled activity - training needed."

"... harder since there are two facets to cope with; subject and language."

"... slow work but satisfying when an end product is produced."

"... another strand to the role of teacher, not separate from it."

Lack of training, understanding of the syndrome and teacher time seem to make the issue of teaching dyslexic pupils a wholly impossible one for most mainstream teachers. Access to knowledge of the difficulties of the dyslexic in the mainstream classroom needs to be given to all teachers, to improve their confidence in their own abilities to provide these children with the education to which they are entitled.
6.2 Discussion

These results have many implications, both for the way that dyslexics are being taught at the moment, and for the training and education of teachers about dyslexia as an educational issue. What must be noted is that the teachers who took part in this survey volunteered to do so; the opinions of the teachers who were not interested in taking part in this survey are therefore not represented.

It becomes obvious from the answers made to these questions that teacher understanding of the concept of dyslexia varies widely between some idea of the difficulties that will occur in the classroom, the various misconceptions ("dyslexia is another word for a middle-class slow learner", to give one example), and the stereotypes. Such varied attitudes will have serious consequences for teacher attitudes towards dyslexic children, and ultimately the way that they are taught. Where to apportion the blame for this lack of knowledge and understanding is the next question. Should teacher training institutions be held responsible for ensuring that student teachers have a more thorough knowledge of working with pupils with special educational needs? In the writer's experience, it would seem that the whole issue of special educational needs has a very low priority on initial teacher training courses. Are schools themselves sufficiently responsible in ensuring that training on the issue of dyslexia is provided for all teaching staff? Is it an issue for LEAs as a whole? Or for the entire country, which the Government should be responsible for? The answer is probably all of these, to differing extents.

From whichever source, much more training is obviously required for teachers to enable them to help dyslexic pupils. The general confusion found in this survey indicates that teachers do not know enough about what dyslexia is, how it manifests itself, and what the consequences for the affected child in the classroom are. Until teachers are equipped with this knowledge, they do not
have the tools with which to provide an appropriate education for dyslexics. The secondary environment makes this factor all the more crucial in a dyslexic child's education: consider the dyslexic pupil, who has a different teacher for each lesson. Even if all of these teachers are aware that the child is dyslexic, it is unlikely that they will all hold the same concept of what dyslexia is. A dyslexic child may therefore be treated differently within each lesson because he is dyslexic. Indeed, a teacher who attempts to make provision for dyslexic children in her class, but who has, through no fault of her own, a wholly inaccurate perception of what dyslexia and that particular child's difficulties are, may ultimately cause the child more educational harm than good.

More confusion is caused over the different types of label or terms given to the syndrome. Teachers are unsure of what term to use to describe the syndrome in the first place; then further confusion is brought about by the use of terms such as 'SpLDs', which some teachers/schools/LEAs use synonymously with 'dyslexia', while others do not. For the benefit of all parties, but especially the affected children, the use of one specific term would be a great leap forward educationally. This would alleviate confusion in all parties - not just teachers, but parents, and the dyslexics themselves. This is one of the more futile arguments in the whole educational debate over dyslexia; yet this is possibly the primary source of confusion for teachers, resulting in the damaging misconceptions and subsequent stereotypes of the syndrome which determine teacher attitudes and actions. Another source of confusion by teachers is over how dyslexia is different to other special educational needs - usually meaning the generally slow learners. Use of the term 'SpLDs' is consistent with 'MLDs' and 'SLDs', creating confusion amongst teachers as to what problems a child with 'SpLDs' might have.
This confusion and feeling of lack of information by teachers is reinforced by the results which showed that, although most teachers are aware that dyslexia exists, they are not sure of the difficulties that a dyslexic will encounter in the classroom, and that they therefore tend to treat dyslexic pupils the same as other pupils with special educational needs. This is not to suggest that dyslexic pupils should receive special or extra attention in the classroom; rather, dyslexic children should have access to teaching methods which are appropriate to them and their needs. It is in this area that teachers feel ill-equipped and lacking in knowledge - opinion was generally unanimous on this. Why is it therefore that training is so obviously missing in an area that so many teachers feel it is necessary?

The answer to this may be that dyslexia is (unofficially) regarded as the least important of all special educational needs in schools. Only 3-4% of the population are dyslexic and to varying degrees, with only 4% of dyslexics classed as 'severely' affected. Unlike a physical handicap, dyslexia is not obvious from looking at a child; the difficulties that go with the syndrome are also not immediately obvious. The dyslexic child will appear to be 'normal' in many respects until basic literacy has been acquired by other children of his age, at around seven or eight years old. It is not until he is way behind the rest of his year group that questions will be asked. Furthermore, many dyslexics become very adept at concealing their problems, making recognition of dyslexia as the reason for poor achievement even more difficult. Finally, the exclusionary nature of the diagnostic process means that a child will only be diagnosed as dyslexic after every other possibility has been ruled out as the cause of the child's difficulties. It is not surprising that provisions for dyslexics are placed behind provisions for other types of more commonly occurring special educational needs in terms of resources, teacher training and so on. Teachers
cannot be held to blame for being ill-equipped to deal with dyslexia; but it is an issue that is repeatedly ignored, at cost to the one dyslexic child in every classroom.

One factor which must be taken into account when considering these results is the influence of the current diagnostic process on teacher perceptions of dyslexia. The train of thought underlying virtually all teachers' perceptions is that to be dyslexic, a child must be of at least average 'intelligence'. This leads to the stereotypes of dyslexia that teachers appear to have identified in this survey. What must therefore be questioned is how many dyslexics remain unidentified because teachers rely on this system of diagnosis? Further, how many more misconceptions about the syndrome are fuelled by the continued use of this process and the stereotypes? One teacher of pupils with special educational needs, when asked by the writer whether the LEA she works for provided statements for pupils with dyslexia, replied "How can a statement be made for a syndrome which it cannot be proven exists?" Teachers are therefore having to rely on their limited knowledge, which seems to contain many misconceptions, in order to recognise pupils who may be dyslexic.

Expectations of the educational progress of dyslexic pupils vary widely, due entirely to the confusion which many teachers feel over the issue. Those who are unsure or have low expectations of pupils with dyslexic pupils are, unwittingly, part of the cause of low achievement by dyslexics. Teachers provide and mark work according to their expectations of pupils; generally, this is appropriate to the needs and ability of the pupils. However, where these expectations are too low, children will be unable to rise above them due to the nature of the work they are given. Dyslexic pupils therefore often do not have the opportunity to achieve their full potentials.
The final conclusion that can be drawn from these results is that mainstream subject teachers acknowledge that dyslexic pupils need help with literacy skills in all lessons - but do not, on the whole, agree that they are entirely responsible for teaching the literacy skills necessary for, and particular to, every individual subject. Teachers need to be made to realise that the education of dyslexic children is their responsibility, and that this includes help with the basics of writing a science report, the structure of a history assignment, or how to go about a mathematical problem, when the pupil's particular difficulties cause additional problems in going about these tasks. Ironically, it is when remedial work is used within the context of work being done within lessons that it becomes more relevant and meaningful to a child, as opposed to exercises completed out of context with the curriculum in segregated 'special needs' lessons. In-class support of development of literacy and organisational skills for dyslexics would therefore be particularly beneficial, with possibly more dramatic and positive results than any special needs provisions can provide.

The open-response questions reflected the feelings of many concerned teachers - of inadequacy towards, and lack of knowledge of and training in the problems specific to dyslexic pupils. Most striking were the repeated comments on the need for training, which would boost not only teachers' knowledge of the issue, but also their confidence in dealing with dyslexic pupils. The responses highlighted many sensitive teachers who partly understand the frustration of the dyslexic; but more significantly, emphasised the mass of confusion felt by teachers towards the whole concept of dyslexia. It may even be the case that researchers have contributed to this confusion by quibbling over issues which are of no relevance to the dyslexic in the classroom situation. As Snowling (1987) concludes, there has been far too much concentration by researchers on the aetiology of the syndrome, and the effects on the initial acquisition of
literacy, and very little written about the teaching of dyslexic children. What must be realised is that until this most fundamental issue is addressed, all of the theories of aetiology in the world will not provide dyslexic children with the quality of education which they have always been deprived of.
6.3 Pupil questionnaire: results

1. Within-group comparisons of 'favourite' teacher ratings, using a Kendall coefficient of concordance\(^1\) showed that all three groups were generally in agreement as to the attributes of their favourite teachers (dyslexics: \(x^2 = 28.8, p<0.001\); slow learners: \(x^2 = 13.2, p<0.05\); average+ pupils: \(x^2 = 116.6, p<0.0001\)). These results suggest that pupils in each group perceive their 'favourite' teachers in a similar way. These findings are concordant with Hicks' results for perceptions of actual class teachers.

2. Using a Kendall coefficient of concordance, within-group comparisons of the ratings of 'least favourite' teacher also showed agreement between pupils in each group, although this was not as strong as for 'favourite' teacher (dyslexics: \(x^2 = 14.4, p<0.05\); slow learners: \(x^2 = 4.2, p<0.70\); average+ pupils: \(x^2 = 11.5, p<0.10\)). These findings also correspond to Hicks' results for 'actual' class teacher, and suggest that members within each group also perceive their 'least favourite' teachers in a similar way.

3. A final within-group comparison was carried out, using a Kendall coefficient of concordance, of the ratings of 'ideal' teacher. Agreement on the attributes of such a teacher was found again in all groups (dyslexics: \(x^2 = 33.6, p<0.001\); slow learners: \(x^2 = 9.6, p<0.20\); average+ pupils: \(x^2 = 132.2, p<0.001\)). Pupils within each group therefore have very similar perceptions as to what their 'ideal' teacher would be like. These results are concordant with Hicks' findings for 'ideal' class teacher.

\(^1\) See Siegel, S. 1956, pp229-239.
4. In order to facilitate as much similarity to Hicks' experiment as possible, to allow comparisons to be made, the ratings of the subjects in each group were averaged; this was possible due to the high degree of concordance within groups as demonstrated above. The three groups were then compared using the averaged ratings to determine whether any agreement occurred between groups on attributes of 'favourite', 'least favourite' and 'ideal' teachers. A Kendall coefficient of concordance was used on the averaged ratings of each group on 'favourite' teacher qualities. It was found that $X^2 = 3.6$, NS. The three groups did not agree between themselves on their perceptions of their 'favourite' class teacher. Using a Kendall coefficient of concordance on averaged scores for 'least favourite' teacher found that $X^2 = 0.72$, NS. Perceptions between the groups also showed a distinct lack of agreement. Finally, a Kendall coefficient of concordance was used on the averaged ratings of each group on 'ideal' teacher qualities, which found that $X^2 = 3.6$, NS. These results suggest that there was also no significant agreement between groups on their perceptions of their 'ideal' classroom teacher. These results are concordant with Hicks' findings of between group comparisons of averaged ratings of 'actual' and 'ideal' class teachers.

5. It was felt that within-group comparisons of ratings for 'least favourite' vs 'ideal' teachers would highlight the greatest areas of dissatisfaction with classroom experience for each group. Spearman's rank order correlation coefficient showed no agreement in any of the groups. This suggests that members of all three groups are dissatisfied with their classroom experience with their 'least favourite' teachers, who differ greatly from the perceived 'ideals'. However, when rankings for 'favourite' vs 'ideal' teacher were compared, using Spearman's rank order correlation coefficient, dyslexic and average+ pupils
showed significant agreement within their groups (dyslexic: \( t = 4.68, p = 0.0005; \) average + pupils: \( t = 4.45, p = 0.0005 \)). There was no significant agreement from the pupils in the slow learners group between the their 'favourite' and perceived 'ideal' teachers. These findings contradict Hicks' results of 'actual' vs 'ideal' teacher ratings, and would suggest that dyslexics and average+ pupils are happy with the quality of classroom experience with their favourite teachers, who are close to their 'ideal'; while slow learners are unhappy with much of their classroom experience in general.

6.4 Discussion

Like Hicks', these results have several implications. These are not, though, necessarily the same as Hicks' identified from her results.

Firstly, there was significant agreement within each group as to the perceived attributes of 'favourite' class teacher, but no similarity across groups. This is a direct analogy to Hicks' results; she found that there was significant agreement within each group of the perceived attributes of 'actual' class teacher, but no similarity between the groups' perceptions.

Comparisons of the rank orderings of the groups showed that the most outstanding attribute of all three groups' 'favourite' teacher was that of "a sense of humour", although the extent to which this was the most important feature differed from group to group. For the average+ pupils, it was by far the most important feature; but for both the dyslexics and the slow learners, this attribute was equal in importance to "My teacher is helpful" - another personal quality. This may be because both dyslexic and slow learner pupils both feel that they need help with their work frequently, and are therefore more at ease with a teacher who gives help freely. There were also differences in the attributes which the three groups rated as least important in their 'favourite' teacher (that
is, the qualities rated last). Both the average+ and slow learner groups felt that "listening to my problems" was least important in their favourite teacher, while this was third on the dyslexics list of rankings. The dyslexics felt that "interesting work" was the least significant attribute of their favourite 'teacher'. The dyslexic pupils may feel that they have more problems than pupils in either of the other groups, or are at least more aware of them than the slow learners are of theirs. The need to find a teacher to whom they can talk about their problems may be especially important in the secondary school environment, where different teachers teach each subject, and where therefore dyslexic pupils may feel misunderstood by not just one, but several teachers. It would therefore seem that although "sense of humour" is the most important quality to all groups, there is much difference in the importance placed on other teacher qualities between the groups.

It was also found that there was significant agreement within each group on the perceived attributes of their least favourite class teacher, but again, no similarity across the groups.

When the rank orderings of the groups are compared, it can be seen that by far the most emphasis is placed on disciplinary qualities by the dyslexics, with "my teacher controls the class well" regarded as the most salient attribute of their 'least favourite' teacher, and "my teacher doesn't shout a lot" as the least attributable feature. Slow learners placed the latter as the most attributable to their 'least favourite' teacher, which may reflect some misunderstanding of the way that particular statement is worded. This group ranked "sense of humour" as least attributable to this teacher. Average+ pupils placed "My teacher is helpful" as most attributable to their 'least favourite' teacher, with again, "sense of humour" in last place.
These results say a lot about the areas in which different pupils are dissatisfied with their classroom experiences. As Hicks found, the dyslexic pupils isolated discipline qualities as the most notable in their 'least favourite' teachers. It would therefore seem that amongst the dyslexic pupils, discipline qualities, when seen as the most salient in a teacher, are regarded as negative characteristics. Although many children respect discipline in their teachers, it may be the case that dyslexic children experience discipline generally in the form of censure and criticism, and so discipline is therefore regarded as a negative characteristic in a teacher. As Hicks notes, this may be because of the behavioural problems which dyslexic children are often said to show, although the survey of teachers' attitudes to dyslexia earlier showed that dyslexics do not appear to show particularly problematic tendencies of behaviour. Hicks' second explanation is that dyslexic pupils are often said to be lazy and undermotivated, usually because of the small amount of work that requires a huge amount of effort from them to produce. This is one feasible explanation for dyslexic pupils regarding discipline qualities as the ones most apparent in their 'least favourite' teachers. However, teachers who do realise how much effort is put into every piece of work will, (possibly subconsciously) begin to pressurize the dyslexic child into trying that much harder, and, as Hicks points out, this may be regarded as a type of disciplinary measure. A further explanation is that some children will ultimately abuse the label of 'dyslexia', in order to do little or no work. One teacher of pupils with special educational needs told the author of the boy she met who insisted that he was no good at any project because he was dyslexic - but of course, he was not, merely abusing the label for his own 'gain'. Teachers have become cynical about both the term and its associations, and may therefore exert more in the way of discipline on those pupils believed to be dyslexic.
Finally, pupils within each group showed significant agreement as to the attributes they would like to see in their 'ideal' teacher; but there was no concordance between groups. All groups noted "sense of humour" as the attribute they would most prefer in their 'ideal' teacher; but again, the extent of this differed between groups, as did choices for other rankings. Average+ pupils ranked "helpful", as the next most important characteristic, with both discipline qualities ranked last. The slow learners also ranked "helpful" second, but their scores for all other rankings were very close, indicating that after these two qualities, there was little agreement within the group as to the rankings of the other characteristics. This group ranked "listens to my problems" as the least important quality in an 'ideal' teacher. The dyslexics ranked this quality second, reinforcing the argument from their ratings of 'favourite' teacher. Like the average+ pupils, the dyslexics ranked discipline qualities last. This indicates that dyslexic and average+ pupils are more interested in the personal qualities of their teachers than work-related qualities, with discipline firmly last. The slow learners prefer a sense of humour to any other personal trait, with mixed opinions about other attributes in their 'ideal' teacher. These findings are generally concordant with Hicks', although she found that dyslexic and average+ pupils placed more importance on work qualities than the generally slow learners in this study. Much of this may be to do with the age of these pupils, who, having only one more compulsory year of school to complete, are in the position where they can see every point or no point to schoolwork.

Hicks used the degree of concordance between actual and ideal teachers to measure the degree of satisfaction with classroom experiences. In the case of the present study, it was necessary to measure the degrees of concordance firstly between 'least favourite' and 'ideal' teachers, and then between 'favourite'
and 'ideal' teachers, to determine the satisfaction of secondary pupils with classroom experience.

The degree of satisfaction would be measured by the concordance between 'least favourite' and 'ideal' teachers. The fact that there was no agreement (as would be expected) shows that all groups are dissatisfied with this classroom experience. Conversely, average+ and dyslexic pupils both showed significant agreement between 'ideal' and 'favourite' teachers, which indicates that both groups are happy with some classroom experience. Pupils in the slow learner group however showed no agreement between 'ideal' and 'favourite' teacher. It is possible that at this late stage of their school careers, slow learners are thoroughly dissatisfied with their entire school experience, and feel that school has little left to offer them.

What this study has not been able to illustrate is how many teachers live up to the dyslexic group's idea of a 'favourite' teacher. It is apparent from this that dyslexic children in secondary schools are happy with some of their classroom experience; this is a positive note for the training of teachers to start from, which illustrates that dyslexic children are not entirely failed by the education system. What has hopefully been illustrated is that the secondary school experience as a whole is not a dissatisfied and negative one throughout for dyslexic children, as Hicks' survey seemed to suggest the primary environment is.

However, it must be acknowledged that the teacher qualities favoured by dyslexic pupils are very different to those preferred by other pupils; teachers therefore have to be prepared to take this into account when catering for all pupils in their teaching groups. As Hicks noted, many teachers do not understand the concept of dyslexia and its consequences for an affected child; more research does need to be undertaken into the performance,
underachievement and whole-school experience of dyslexic children to help teachers understand them better, in order to be better equipped to help them. At the same time, dyslexia is one of those educational 'taboo' subjects, where teacher participation is difficult to procure. Yet in order to make the teaching of dyslexics easier, and the school experience better for affected children, more work must be done with teachers to ensure that they have the understanding and knowledge to help these children achieve their potential in school.
7. Conclusion

The results of the teachers' survey have clearly shown that secondary mainstream teachers do not feel that they have enough knowledge about dyslexia, are not clearly aware of how it is different to any other special educational need, and do not feel that they have been given enough training on the whole issue. These teachers are therefore not equipped to understand and provide adequate and effective support for the one dyslexic child that may be in every class they teach.

The results of the pupils' survey indicate that dyslexic pupils are not happy with some of their classroom experiences (that is, with their least-favourite teachers). The reasons that the dyslexics gave were different to those given by generally slow learners and average+ pupils. Dyslexic pupils' experiences of secondary school are therefore unlike other pupils' in some ways. This is probably linked to the perceptions and attitudes of their teachers towards the concept of dyslexia.

Many people would claim that dyslexics tend to under-achieve at school because of the very nature of the syndrome - children who do not have access to literacy skills must have difficulties at school because the education system revolves around literacy. The writer would argue that it is rather the education system which is failing dyslexic pupils, and for the very reasons given above by the participants, pupils and teachers.

In considering, therefore, how aspects of the education system as it stands could be improved to take into account the needs of dyslexic pupils, the difference between the primary and secondary school environments must not be overlooked. The traumatic transition from the primary to secondary school (as illustrated above, pp62-64) will shape a dyslexic's attitude towards education for the rest of his school years - an attitude that will probably remain negative, as
the child is reminded everyday of his academic failure merely by having to attend school. If teachers are reinforcing such negative attitudes, there is little hope for the education of dyslexic children.

The consequences of such negative thought and attitudes of both teachers and affected pupils towards dyslexia are more severe than many would imagine. Osmond (1993) discusses the work of Jill Hutchings, a London probation officer who worked in prisons. She became convinced that dyslexia was one of the major reasons for many of her clients' life of crime. Her research, which culminated in the BBC 'Public Eye' documentary (broadcast in June 1992) found that over fifty per cent of prisoners could be dyslexic. The feelings of low self-worth and frustration from people who are otherwise very capable in the outside world, and similar attitudes in society towards dyslexia, would seem to relegate sufferers to the 'scrap heap', or dole queues; crime may be seen as the only way out.

In the writer's opinion, the education system is fully to blame for such a situation. This is not to isolate teachers as scapegoats, as without the tools (or knowledge) they are ill-equipped to attempt the job of educating dyslexics. However, the education system needs to be held responsible for ensuring that all teachers have the information and knowledge they need to enable them to adequately provide for the education of dyslexic children; teachers might then acknowledge that the education of dyslexic pupils is their responsibility, not just that of the special needs teacher.

The education of dyslexic children in mainstream schools by mainstream teachers is a legal obligation. It was the Tizard report in 1972 which heralded the educational denial of the existence of dyslexia: "... we cannot attach any significant meaning to the term "acute dyslexia" and we are sceptical of the view that a "specific syndrome of 'developmental dyslexia'" has been identified" (from
Chasty & Friel, 1993, p17). This attitude has been very difficult to disperse, and still exists to a more than desired extent today.

The Warnock report in 1978 led on to the Education Act 1981, where many of the recommendations of the report were entered into legislation. For dyslexic children, one of the most important developments was that 'categories of handicap' were no longer used; instead, importance was placed on how serious a child's special needs were; and so the needs determined the provision, not the name of the particular handicap. This meant that provisions could be made for dyslexic children, who no longer had to endure prejudice against the name of their disability. Another important development from this Act was the definition of a 'learning difficulty'. The second definition of 'learning difficulty' given in this Act was:

...the child has a disability which prevents or hinders him from making use of educational facilities of a kind generally provided in school, within the area of the education authority concerned, for children of his age. (from Chasty & Friel, op cit., p25)

Dyslexic children can, through this definition, be regarded as suffering from a learning difficulty for the purposes of receiving adequate educational provisions. Despite such legislation, however, it was found that many schools and LEAs were not putting the requirements of the 1981 Act into practice. The HMI report Getting in on the Act (1992) found little consistency between LEAs as to the proportion of pupils with statements, notions of appropriate provisions, and time taken to prepare a statement. The 1993 Education Act has introduced the Code of Practice, to be implemented from September 1994. This aims to ensure that the needs of all children with special educational needs are identified and provided for, preferably within mainstream education. This includes children with special needs who do not have a statement. The Code will also emphasize
the need to identify special educational needs as soon as possible, especially regarding early action when special needs are identified in children under five.

The implications of the Code of Practice can be nothing but positive for dyslexic children, as long as it is implemented in all schools. The danger is that teachers do not have enough information about special educational needs, and of course dyslexia in particular, to put this legislation into practice. However, what the Code of Practice does stress is the legal obligation that all teachers have towards all children in identifying and providing for their special needs to the best of their ability. It needs to be brought to the attention of teachers that this includes the 'forgotten' dyslexic children. There are a number of issues which need to be urgently addressed, in order to enable teachers to carry out their responsibilities to dyslexic pupils.

The first is that of training for teachers. This issue was raised by the majority of teachers who answered the 'open-response' section of the questionnaire; they felt that the whole concept of dyslexia was not addressed in their schools, that they did not know enough about it to feel confident in the way they approached the teaching of dyslexic pupils, and that training on the issue as a whole is greatly lacking. The issue of special educational needs is one that is not addressed adequately by teacher training institutions. This is where prospective teachers should be introduced to the issue as one which will affect their everyday work, with 20% of their pupils on average affected in some way. Yet the issue is regarded as one which 'specialist' and experienced teachers will deal with - probably determining the attitudes of many teachers towards pupils with special educational needs; that is, that they are not the mainstream teacher's responsibility.
One reason why dyslexic children often remain unidentified is because teachers have great difficulty in distinguishing a dyslexic from a generally slow learner. This is because of the knock-on effects of the syndrome, which lead to all-round poor academic performance, as discussed in the review of the literature. Training for teachers concerning the different needs of both groups of children would help to alleviate this confusion, and result in more rapid identification of the different needs and provisions required by dyslexic and generally slow pupils. Whole-school policies on dyslexia need to be formulated; yet teachers and schools possibly do not realise how many children are affected, as teachers are unable to identify the dyslexic children in their classrooms. Even when teachers have been trained to deal with dyslexic pupils (usually special needs staff), it is assumed that they will address the issue entirely, and other teachers are not involved. What would be more useful, for both teachers and dyslexic pupils alike, would be for specially trained teachers to share their skills and knowledge with all other members of staff; the pooling of such a resource must make financial sense in several ways.

LEAs and governors of grant-maintained schools must be held responsible for formulating policies on the education of and provisions for dyslexic children; but they must then ensure that these policies are implemented in all schools, and that training is provided across the education authority for all mainstream teachers. Unfortunately, this is where money becomes involved; and again, the dyslexics, those with the least 'important' special need, are relegated to the bottom of the resources queue again. LEAs and governors must be held to account for ensuring that provisions for dyslexic children are made.

Another area of difficulty for teachers lies in the use of the diagnostic criteria as they exist at the moment. Diagnosis is made on purely exclusionary
factors - if a child’s classroom difficulties cannot be attributed to any other cause, only then is dyslexia considered. A further criticism is of the next stage in the process, where a discrepancy between IQ and reading age are looked for. Miles (1974, p61) stated that "An important criterion used in deciding whether or not the child is dyslexic is that of 'discrepancy'". The writers would take this further, and state that in their experience, most schools, even some of those claiming to specialize in the teaching of dyslexic children, regard this discrepancy as the vital criterion used in diagnosis. Yet Naidoo, two years earlier (1972, p16) had stated that "It is obvious that if aetiological factors such as genetic transmission and neurological dysfunction are implicated, specific dyslexia can occur at all levels of intelligence" (writer’s italics). There is no evidence so far which shows that dyslexia is a 'selective' syndrome which affects only children of average or above-average intelligence. The 'discrepancy' criteria for diagnosis would therefore seem to be completely inappropriate: not only does it exclude all members of the population who are of below-average intelligence, (therefore becoming another equal-opportunities issue - see Cline & Reason, 1993) it would seem that diagnosis is being made through criteria which are in no way related to either the origin or manifestation of the disorder. These diagnostic criteria are therefore of no relevance to an educational context - yet these are factors which informed teachers are using to determine dyslexia.

The assessment and diagnosis of dyslexia are where the most fundamental problems for the dyslexic should end; in reality, this is where they begin. The ineffectiveness and inappropriateness of the current methods of assessment and diagnosis result in many dyslexics remaining unidentified throughout their school careers - and subsequently, continuing to suffer problems throughout their adult lives. The point of assessment is therefore in crucial and immediate need of review.
Objectives for diagnostic process review

There are three objectives which are of equal importance as far as their role in the diagnosis of all dyslexic children is concerned. The first is that diagnosis requires inclusive factors which add up to a whole picture of dyslexia. It is not satisfactory to end up with a diagnosis of dyslexia purely because no other explanation can be achieved. Diagnosis by this method only serves to reinforce the fact that educationalists and others feel inadequate in terms of identifying and dealing with problems which are specific to each child with difficulties in the classroom, and who subsequently attempt to camouflage this by merely giving the child's problems any 'label'. Unfortunately, this does not always result in appropriate action being taken. A method of diagnosis which determined dyslexia by agreed criteria would distinguish the dyslexic from the generally slow learner, both of whom may find themselves labelled in either category.

Secondly, any diagnostic method must take into account those dyslexics who are of below average intelligence or who have other learning difficulties in conjunction with dyslexia. All dyslexic children have a right to an appropriate education, however great or small their "potential" may be considered to be. As the syndrome appears to be largely genetic, (Smith et al, 1983; Pennington, 1989; Rabin et al, 1993) there will continue to be children of below average intelligence who are affected; through working to the current definition, the education system is therefore consistently failing one section of the population, in a manner which is prejudiced and which would not be tolerated in any other situation. Provisions must be made for those pupils who suffer from dyslexia in conjunction with other learning, behavioural or emotional difficulties. Ignoring the dyslexia may only exacerbate the other problems.
Finally, a workable alternative to the IQ-reading age discrepancy must be found as the diagnostic criterion. Although the use of this in the initial identification of the syndrome in many children must not be denied, under this current system, many dyslexics remain unidentified throughout their lives, and problems which could be overcome through adequate teaching continue to disable them into their adult lives. As IQ bears no relevance whatsoever to the aetiology or manifestation of dyslexia, it cannot be regarded as a satisfactory criteria for diagnosis. Researchers such as Stanovich (1991) have suggested alternatives for the IQ score; Stanovich himself proposes using a listening comprehension, but admits that this system is not flawless. The writers would propose that a more practical approach is appropriate to an educational diagnosis, focusing on a child's understanding of spoken and written language forms. Once dyslexia has been established in this way, a separate test of ability would be necessary to determine appropriate educational action for each dyslexic. This takes Stanovich's proposal one step further, yet is still imperfect in the extent to which it includes those dyslexics with other learning difficulties, and a suggestion as to how 'ability' should be measured. More work needs to be undertaken to find an alternative which is more effective, more relevant to the nature of the syndrome, and, most importantly, acceptable to all educationalists as a more satisfactory method than the one currently in use.

It would seem therefore that the diagnostic procedure for dyslexia currently in use is inadequate because it is based on neurological definitions which are irrelevant to an educational situation, where the greatest difficulties incited by the syndrome are experienced. None of the above objectives for review of the diagnostic process can begin to operate until these definitions are either disregarded or re-written within an educational context. Only when
assessment and diagnosis are made on these terms will dyslexic children begin to be fully recognised and understood.

Leading on from the issue of improvement of the diagnostic criteria, one of the seemingly most trivial, yet to the dyslexic possibly most important issues, is that of nomenclature. As noted in the review of the literature, there are so many different terms or 'labels' bandied about for the syndrome that teachers and affected pupils alike are entitled to be confused. This was illustrated in the teachers' survey, where it became obvious that different terms which teachers claimed were being used to describe dyslexia are, in fact, including other more general learning difficulties as well; hence the difficulty in determining the dyslexic from the generally slow learner. A universal term (at least within educational use) must be determined to overcome this confusion which is making life difficult for both dyslexics and their teachers, but ultimately, at the expense of the education of the dyslexic.

The very diagnostic process and use of terms as discussed above are the major influence on teachers' attitudes towards the whole concept of dyslexia. As was reflected in the results of the teachers' survey, these result in the creation of the 'stereotypical dyslexic', which most of the teachers in the survey identified as the pupils they regard as being dyslexic. Stereotyping by educationalists is highly dangerous; those who do 'fit' the stereotype will be treated in a certain way because of it; and those who do not will be disregarded in terms of that stereotype. There will always be those dyslexics who do not 'fit' into the stereotype, whose problems and difficulties are therefore overlooked, who will be receiving an inappropriate education, and whose entire future will be determined by the actions of those who reinforce these stereotypes by acting upon them. Similarly, there will be non-dyslexic children who do fit the dyslexic
stereotype. Stereotyping benefits neither parties; in fact, it is detrimental to the educational progress of both. IQ measurement is therefore not only inappropriate as a diagnostic criterion, it is highly damaging in terms of the creation of stereotypes and subsequent provision of appropriate education for a dyslexic.

What was also reflected in the survey was that teachers tend to have lower expectations of dyslexic pupils, based purely on the associations of the label 'dyslexic' and the accompanying stereotypes. Solity and Raybould (1988) recognise the implications of low expectations of pupils by teachers:

Clearly, through having notions of pupils being 'handicapped', our expectations of their future performance are likely to be lower than if they were perceived as 'non-handicapped'. When looking at children in a class, and generally asking of all of them: 'What are their educational needs?', it might be easier to steer clear of having lower expectations of some children than others. . . . what can be asserted with some confidence, is that our expectations can often be an extremely influential factor in determining what children can achieve in schools. (p17)

Low expectations can therefore be dangerous for the education of dyslexic pupils; as Fox (1993) notes, this is because "expectations affect teacher behaviour, which in turn affects the behaviour of the person in the other group, whose response will confirm the expectations" (p95). Fox continues that it is through such mechanisms that teachers form attitudes, through which they protect their own self-concepts. Changing attitudes therefore means destroying part of the protection of this self-concept. This is probably why the teachers in the survey were so negative about their responsibilities to dyslexic children; their lack of knowledge on the issue leads teachers to become defensive when their responsibilities and the way they are carried out are challenged. However, part, if not all of the answer to this lies in the training and education of teachers. At secondary level, where so many teachers come into contact with each child, it is
imperative that they do not all hold the same low expectations of dyslexic children, as this will undoubtedly have negative consequences for their academic progress.

The education system is failing dyslexic children because it fails to provide teachers with the simple tools they require to enable them to provide access for dyslexic children to the education to which they are entitled. As has been illustrated, the issue of dyslexia in an educational context has many different facets; issues which all need to be addressed in turn before teachers are able to deal competently with the dyslexic children in their classroom. Much more research is required to find out exactly how dyslexic children learn, and which teaching methods are most and least effective for dyslexic pupils in the mainstream classroom; the education of dyslexic pupils must not be at the expense of the education of all other children, just equal to it. In the short term, merely raising teacher awareness of the immediate classroom difficulties of dyslexic children could have a profound effect on the children's attitudes towards their education and their psychological well-being, which in turn should improve academic performance. This is by no means the long-term answer to the education of dyslexic children; but raising awareness brings recognition of the fact that there is a problem. Teachers, researchers and others may then in turn do their best to ensure that dyslexic children receive the education to which they are entitled, who then, as their peers, have the opportunity to achieve throughout the rest of their adult lives.
References


Dyslexia Institute. *Successful Learning for Dyslexic People*.


APPENDIX 1.

Table 1. Mean rankings by each group of their favourite class teacher (to nearest whole number).

<table>
<thead>
<tr>
<th>Quality</th>
<th>Average</th>
<th>Slow learner</th>
<th>Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher has a sense of humour.</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2. My teacher listens to my problems.</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>3. My teacher is helpful.</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4. My teacher controls the class well.</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. My teacher doesn't shout a lot.</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. My teacher gives me interesting work.</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. My teacher explains things well.</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 2. Mean rankings by each group of their least favourite class teacher (to nearest whole number).

<table>
<thead>
<tr>
<th>Quality</th>
<th>Average</th>
<th>Slow learner</th>
<th>Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher has a sense of humour.</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. My teacher listens to my problems.</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. My teacher is helpful.</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. My teacher controls the class well.</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5. My teacher doesn't shout a lot.</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>6. My teacher gives me interesting work.</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>7. My teacher explains things well.</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3. Mean rankings by each group of their ideal class teacher (to nearest whole number).

<table>
<thead>
<tr>
<th>Quality</th>
<th>Average</th>
<th>Slow learner</th>
<th>Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher has a sense of humour.</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2. My teacher listens to my problems.</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3. My teacher is helpful.</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. My teacher controls the class well.</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. My teacher doesn't shout a lot.</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. My teacher gives me interesting work.</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>7. My teacher explains things well.</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX 2.

Teacher questionnaire: responses to Section 3, Open Questions.

1. Dyslexia is...

   ... an educational need that includes reading, writing, spelling etc., and other problems.
   ... a disadvantage to a pupil, but its effects may be overcome by persistence and determination.
   ... not fully understood by many teachers; a term overused by the general public.
   ... takes a variety of forms.
   ... a problem with both reading and writing
   ... another term for teacher failure.
   ... a disability, which often masks the talents and abilities of affected people.
   ... an often convenient way of dismissing some pupils' problems.
   ... whatever you make it.
   ... a very specific condition - the term is often misused.
   ... an umbrella term in the way it is generally used.
   ... difficulty understanding, reading and writing words.
   ... a learning difficulty associated with reading.
   ... a frustrating problem for the sufferer, often unrecognised by teachers.
   ... insufficiently recognised in the school in which I teach.
   ... a type of specific learning difficulty affecting literacy.
   ... a specific learning difficulty.
   ... a reading difficulty that affects the standard of writing.
   ... involves reading and writing difficulties.
... to me a term used to describe pupils with specific learning difficulties.
... a problem with reading which usually manifests itself through writing difficulties.
... "?
... a problem concerning ordering, not just of reading and writing.
... a language problem involving recognising words and patterns on a page.
... a problem concerned with literacy.
... word blindness.

2. Dyslexic pupils are...
... often talented in areas other than in writing etc., often better orally.
... to be encouraged to develop a positive attitude towards their difficulties.
... labelled less able but are generally of 'above average' intelligence.
... faced with unique problems in the classroom that can frustrate and upset them.
... under more pressure than other students.
... normal.
... often frustrated by lack of success in written activities. They need support and encouragement.
... often ignored and left to struggle.
... real people.
often frustrated by the inability to communicate effectively in the written form.
... specially disadvantaged - across the whole ability range.
... often quiet and withdrawn, but willing in practical work.
... at a disadvantage.
... underachieving badly through no fault of their own.
... in need of specific help, including one to one lessons with trained staff.
... the same as other pupils but with a specific learning problem.
... people too.
... as intelligent as others but hindered because of reading/writing difficulties.
... probably misunderstood because of the complexity of the term.
... sometimes brighter than they appear; can cope with work if helped with reading.
... in need of special or specific help with learning.
... yet another problem that needs an awareness-raising exercise for most teachers.
... frequently boys, often goes unnoticed.
... at a disadvantage because of their generally weak literacy skills.
... poor or slow readers.

3. Dyslexic pupils in the mainstream classroom...

... need to have encouragement on their strengths to maximize success.
... are likely to have their difficulties understood and ability underestimated.
... need a lot of specialist support to maximize their potential.
... entitled to our consideration in terms of differentiation. Their access to the curriculum is an equal opportunities issue.
OK, but support and INSET needed.

are in the main helpful.

are no different to others.

have the same rights to entitlement as everyone else.

could be encouraged by using different techniques than most teachers use.

is no guarantee of acceptable progress.

often poorly served.

another challenge!

need individual attention, so can distract from other pupils in the group.

would be a problem.

are very often thought of as 'slow learners' where teachers are at a loss to help.

should receive in-class support where necessary.

frustrated, cannot cope with reading/writing demands of work they understand.

difficult to ensure they all get the attention they need.

suffer because they cannot have the extra attention they need.

do not get enough attention; need to be in special educational needs unit.

need support from special educational needs staff. Staff also need training to cope with the problem.

is the place where they can fully participate in the learning process.

tend to be treated as other pupils with little or no support.

have a right to achieve to the best of their ability.

probably don't get sufficient effective help.
... have a right to be there, but may not get all the attention they deserve.
... normal integration.
... are often a discipline problem unless they come to terms with the problem.

4. Teaching pupils with dyslexia is ...

... another strand to the role of teacher, not separate from it.
... challenging.
... difficult because of poor awareness of the problem.
... part of the job! Part of the challenge of improving the learning of all students as individuals.
... difficult.
... harder because preparation takes longer.
... fun.
... a worthwhile challenge. Can be time-consuming - extra resources vital.
... the responsibility of all mainstream teachers.
... a complicated issue.
... a highly skilled activity - training needed.
... bewildering and often frustrating.
... slow work, but satisfying when an end product is produced.
... difficult.
... difficult for staff who have no real understanding of the problems involved.
... a problem without the proper training or well-resourced support.
... difficult in most classrooms, teachers have no strategies to help.
... difficult because you are not sure of their true ability in a subject.
... difficult with other distractions in the room; also need specific training.
... difficult in the mainstream because of lack of support and large teaching groups.
... sometimes frustrating, but given adequate resources progress can be made.
... either a specialist task or needs specific training for teachers.
... difficult, in knowing how to best help them.
... probably less effective than it could be because of lack of knowledge.
... harder since there are two facets to cope with; subject and language.
... more difficult.
... difficult.
APPENDIX 3.
Dyslexic, Retarded and Normal Readers’ Perceptions of the Qualities of Real and Ideal Class Teachers

CAROLYN HICKS, School of Continuing Studies, University of Birmingham

ABSTRACT In order to compare different types of readers’ perceptions of both their own classroom teacher, and their ‘ideal’ classroom teacher, eight dyslexic, eight retarded and eight normal readers were asked to rank order nine teacher qualities, firstly as they pertained to their actual class teacher and secondly as they would pertain to an ‘ideal’ class teacher. The results can be briefly summarised thus: (i) ‘Within-group’ comparisons of the results indicated that each group had a similar view of their actual class teacher and also of the sort of attributes that constitute an ‘ideal’ teacher. (ii) ‘Between group’ comparisons revealed that while normal and retarded readers perceived their actual class teacher similarly, the views of dyslexics did not accord with them. Notions of ‘ideal’ teacher qualities were similar between dyslexics and normals, with retarded readers showing no agreement. (iii) Lastly, comparisons of ‘ideal’ and actual teacher ratings within each group demonstrated significant concordance for the normal and retarded groups but not for the dyslexic group. The implications of these results are discussed.

Introduction
Just as teachers inevitably make assessments, both formal and informal, of their pupils, so children also form opinions of their teachers. Such mutual evaluation has important implications for classroom interaction. The teacher’s assessment of a child should lead to a heightened awareness of the child’s social, emotional and educational requirements, thus enabling the teaching process to be tailored to specific needs. The child’s less formalised evaluation of the teacher at both a personal and professional level, will also influence classroom dynamics, in that the child whose opinion of the teacher is negative, is likely to be less satisfied with the milieu of the classroom and thus make fewer gains in the widest sense, than the
child who has a positive construct of the teacher and the total educational process. The effects may be particularly pronounced in the primary school, where the tradition of a general-subject class teacher may exacerbate any problems of this type.

Considerable attention has been focused on both children's and teachers' attitudes to a variety of educational issues, such as particular subject areas (e.g. Thomas & Costello, 1988; Pritchard, 1987), methods of instruction (e.g. Johnston, 1987) and reciprocal evaluations of each other (e.g. Worrall et al., 1988). However, comparatively little research has addressed the issue of children's opinions of their class teachers. This paucity of work is somewhat surprising in view of the current emphasis on teacher appraisal and the typically constructive nature of pupils' assessments (e.g. Meighan, 1978). However, the neglect may be explained by the potentially sensitive nature of teacher assessment and by the relatively impotent role held by the pupil.

That research which has been conducted on the topic has concentrated largely on the value of pupils' opinions for modifying teaching style (e.g. Parsons & Webb, 1980; McKeachie et al., 1980; Rezler, 1983). The range and scope of these studies is diverse, dealing with a variety of age groups from primary to tertiary (e.g. Meighan, 1977; Moses, 1986) and pupil populations, such as the disturbed (e.g. Carnell, 1983; Lubbe, 1986). Similarly, a range of assessment techniques has been employed, including repertory grids (Henry, 1981), open-ended questionnaires (e.g. Blishen, 1973; Meighan, 1978); ordinal attitude scales (Worrall et al., 1988; Carnell, 1983) and standardised tests (e.g. McKeachie et al., 1980). Perhaps because of the varied nature of the aims and procedures of the studies little consensus in the results can be identified, apart from the fact that primary school children appear to be more positive about their teacher and school in general than do secondary school pupils, and that this enjoyment is apparently unrelated to the individual's success or failure in the classroom.

It is outside the scope of this paper to provide a detailed review of the literature since the focus and methods of the present investigation deviated from existing reports making the available literature not directly relevant. The present research compared the rank-ordered perceptions of three types of reader (normal, retarded and dyslexic) of their actual class teacher and their 'ideal' class teacher. This distinction between types of learner and the method of deriving the child's perceptions in particular differentiate this study from existing ones.

More specifically, the aims of the study were twofold:

(a) to assess the degree of concordance between dyslexic, retarded and normal readers' perceptions of their actual class teacher; a corollary to this was a comparison of the three groups' concepts of the attributes they would desire in the 'ideal' teacher.

(b) to assess the degree of concordance between 'actual' and 'ideal' teacher ratings within each group, thereby providing a measure of each group's satisfaction with current classroom experience. This measure rests on the concept that the wider the discrepancy between 'actual' and 'ideal' ratings the greater the inferred dissatisfaction (and vice versa), and is a technique which has been used widely, notably by Gage et al. (1963).
Method

Subjects

Three groups of subjects were used, each group comprising eight children, in their final year at junior school. All were of average intelligence as measured by the NFER non-verbal reasoning test.

Group 1: dyslexics. This group comprised five boys and three girls, mean age 10.4 years, with a mean reading retardation of 1.3 years (standard deviation 3.27 months). The criteria for classification as dyslexic were in accord with recommendations made by Miles (1974) and Thomson (1979), and used previously by Hicks (1981). These were: at least average IQ, auditory and visual short-term memory problems, sequencing problems and absence of any other causal factors, e.g. limited school experience or brain damage.

Group 2: retarded readers. This group comprised five boys and three girls, mean age 10.7 years and mean reading retardation 1.1 years (standard deviation 3.14 months). This distinction between 'retarded' and 'dyslexic' was made principally on the presence or absence of the typical identifying features of dyslexia. The criteria for the selection of this group were as follows: at least average IQ, no short-term memory defects, sequencing problems, no directional confusion nor bizarre spelling errors, and an alternative obvious explanation for the reading retardation, e.g. socio-economic factors, poor school attendance, etc. (Rabinovitch, 1968).

Separate groups of dyslexic and retarded readers were selected on the basis of Rabinovitch's (1968) classification. While there has been some controversy over dyslexia as a separate type of reading disorder, the qualitative distinction between retarded and dyslexic readers has been emphasised by a number of researchers, e.g. Miles (1989); Vernon (1979); Fischer et al. (1978); Rutter et al. (1971), and demonstrated by the physiological findings of Preston et al. (1974) and Preston et al. (1977).

Group 3: normal readers. This group comprised four boys and four girls, mean age 10.5 years, all with reading levels within two months of their chronological age.

The small number of subjects involved requires explanation. Prior to the selection of the subject sample a number of teachers were drawn from comparable schools within a large urban environment. They were assessed on the Jones (1969) Teacher Competence Inventory, in order that a matched group of teachers could be identified, from whose classrooms the subject sample would be drawn.

The evaluation of the teachers was carried out by two trained, competent observers each of whom rated the teachers on one occasion. The results from the raters were correlated using the Spearman test to obtain inter-rater reliability scores. Those teachers whose inter-rater correlation coefficients were above +0.71 (the specified inter-rater reliability score for the Jones inventory) were identified. From these a group of matched teachers was selected.

The matching of teachers was based on both overall and sub-section performance on the Inventory (personal, social and teaching qualities). It was essential to select a
group of teachers who were as closely matched as possible, since the existence of major differences between them would have been reflected in the children's assessments of their class teacher, thereby vitiating the whole study.

Some explanation of the choice of the Jones Teacher Competence Inventory is necessary. The search for an adequate set of criteria on which to assess teaching competence has continued for decades, without reaching any real consensus. In addition, there is a further problem of how best to assess these criteria however they may be defined. The three major approaches commonly used (systematic observation, participant observation and questionnaire surveys) are all beset with disadvantages (Kyriacou & Newson, 1982). Consequently, any selection of assessment technique must rest on a set of informed decisions by the researcher, taking into account the purposes for which the evaluation is to be used, the specific areas of the teaching process relevant to the research issue under consideration, together with any related problems and parameters.

For the purposes of the present study, a number of criteria were important. Firstly, the manner and nature of the assessment had to be acceptable to the initial sample of teachers involved. While the use of video recordings provides an objective record of classroom events, it is perceived as being very threatening by the majority of teachers. Where a piece of research is dependent upon teacher cooperation for its implementation, techniques of this sort are not a viable choice and a less threatening and unobtrusive form of evaluation must be used instead.

Secondly, the assessment schedule had to be acceptable to the raters. Lengthy training procedures and complicated analyses of teacher competence were therefore not appropriate.

Thirdly, the assessment technique had to be based on a defined structure, such that comparisons between teachers could be made in a relatively systematic way. Allied to this was the intention that the evaluation needed to focus on overt behavioural incidents, since this was the main reason for matching the teachers. Defining objectives in behavioural terms has been widely recommended (e.g. Stones & Morris, 1972).

Fourthly, an assessment schedule which evaluated the overall quality of the classroom climate was required in preference to a numerical or quantitative statement of events, because the focus of the research was on qualitative style. Furthermore, assessment of this type partially overcomes those objections to systematic observation schedules which level criticism at their lack of concern with the dynamic nature of the classroom (Kyriacou & Newson, 1982).

Finally, a highly reliable technique was required, since low inter-rater reliability would have undermined a fundamental point of the project.

The Jones Teacher Competence Inventory satisfied all these requirements. It is a direct modification of Poppleton's (1968) assessment schedule, which in turn was derived from Flanagan's (1954) Critical Incidents Technique. Intended for secondary school teachers, Poppleton's inventory of teacher evaluation is based on those observable behaviours in the teaching process which are thought to differentiate good from poor teachers. However, "fairly broad behavioural tendencies rather than isolated incidents which might rarely occur" are assessed on a "global impression", (rated on an ordinal scale of quality) and in this respect it differs from Flanagan's Schedule.

The major difference between Jones's and Poppleton's inventories lies in the teachers for whom it is intended. While Poppleton concentrates on secondary
Readers' Perceptions of their Teachers

school teachers, Jones' focus is junior school teachers. Despite that, the overall inventory is very similar and is based on the same theoretical principles. It is a structured 13-item assessment of behavioural events based on overall impressions and as such can be construed as a high-inference schedule which can provide a qualitative assessment of the classroom climate. Because of its simplicity it requires little training of the observers. It is not intrusive and is minimally threatening to teachers. Its inter-user reliability is +0.71 (as opposed to Poppleton's +0.6), and has been used elsewhere (e.g. Hicks, 1980). With these characteristics and its sound lineage, the Jones inventory was deemed suitable as a measure of teacher competence, bearing in mind the requirements of the study.

Because of the considerable difficulties involved in matching, only three teachers could be found who were sufficiently closely matched on both the overall scores and each of the 13 sub-classes (averaged overall scores on the Inventory for Teacher 1 = 50; Teacher 2 = 49; Teacher 3 = 50). Total matching of teachers is clearly impossible to achieve given the dynamic nature of the teaching activity. However, the teachers in the sample obtained identical scores on all the Inventory's 13 sub-sections except one, where a discrepancy of one mark was obtained. This degree of homogeneity was considered an adequate measure of matching on the main teacher characteristics.

However, selecting a small number of matched teachers ensured that each had at least two members of the three-readers' groups in her classroom. In terms of design, this was considered preferable to selecting a large unmatched sample with only one or two subjects in the class. In this latter situation any reported differences in approach might have been a reflection of overall individual teacher differences as opposed to qualitatively distinct teaching styles directed towards a particular type of reader.

Materials

Nine cards were used, each of which bore a description of teacher behaviour. Three cards had statements relating to personal qualities, ("My teacher is kind and helpful"; "My teacher is interested in me"; "My teacher has a sense of humour"), three to work qualities ("My teacher writes nice things on my work"; "My teacher explains things well"; "My teacher gives me interesting work") and three to discipline qualities ("My teacher is fair"; "My teacher controls the class well"; "My teacher doesn't shout a lot").

These broad categories of teacher qualities (personal, work and discipline) were derived from classifying the replies of 173 children to interviews about their class teacher conducted by Parsons & Webb (1980); they are also similar to three of the four categories of assessment used by Meighan (1978). The specific statements also derived from the pupils' comments in the Parsons & Webb study (op. cit.) and from the work of Blishen (1973). Only positive statements were used for two reasons. Firstly, it was considered unlikely that the subjects would select negative qualities as the most apposite descriptions of their teacher because of social desirability factors and the generally positive view of teachers that primary school pupils typically hold (e.g. Meighan, 1977). Secondly, it was not the aim of the study to make a full and detailed evaluation of the class teacher, but simply to discover how far groups of pupils differed in their opinions of their teacher. Given that teacher
evaluation is a potentially sensitive area, it was considered prudent to attempt to reduce any possible resistance to the task by the parties concerned.

**Procedure**

The procedure was divided into two parts:

**Part I:** ratings of actual teacher. The cards were presented simultaneously to each child, in a random pre-arranged order and each statement was read twice by the experimenter. It was established prior to starting the study that each child could read the cards. The cards remained on the table for the child to examine. The child was asked to select a statement which best applied to his/her own teacher. The response was noted and the card removed. The child was then required to select from the remaining cards that statement which now applied best. Again the response was noted and the card removed. The procedure was repeated until all the statements had thus been rank ordered.

Each child was assured that the responses were totally confidential and would not be revealed to the class teacher.

**Part II:** ratings of ‘ideal’ teacher. The child was asked to think of their ‘pretend, ideal’ teacher. The above procedure was repeated for this teacher. Again, each child was assured of the confidentiality of the responses.

**Presentation of Parts I and II** were randomised to counterbalance order effects.

**Results**

The results can be summarised as follows:

1. Within group comparisons of ‘actual’ teacher ratings, using a Kendall coefficient of concordance showed that all groups displayed significant homogeneity of class teacher evaluation (dyslexics: \( x^2 = 17.3, p < 0.05 \); retarded: \( x^2 = 16.8, p < 0.05 \); normal: \( x^2 = 27.8, p < 0.001 \)). These results suggest that each type of reader perceives the class teacher in a similar way.

2. Within group comparisons of ‘ideal’ teacher ratings, using a Kendall coefficient of concordance showed that each group had similar concepts of the attributes of the ideal teacher (dyslexics: \( x^2 = 28.85, p < 0.001 \); retarded: \( x^2 = 23.4, p < 0.01 \); normal: \( x^2 = 18.05, p < 0.05 \)). The results indicate that members within each group have a similar notion of the qualities of the ‘ideal’ teacher.

3. The homogeneity of agreement demonstrated in the above analyses legitimised averaging the ratings of the subjects in each group. Using the averaged ratings, the three groups were compared to ascertain whether there was any between group agreement on both ‘actual’ and ‘ideal’ teacher ratings. Using a Kendall coefficient of concordance on the averaged ratings of each group on ‘actual’ teacher qualities, it was found that \( x^2 = 3.95, NS \). This suggests that there was no significant agreement between the groups on their perceptions of their ‘actual’ classroom teacher. This lack of agreement among the subjects was confirmed by the results of a Kendall coefficient of concordance computed on the individual rankings of the 24 subjects \( (df = 8, x^2 = 11.91, NS) \). Further analyses using the Spearman rank order correlation coefficient, to compare the averaged scores of pairs of groups (i.e. normal vs
Readers' Perceptions of their Teachers

...retarded; normal vs dyslexic, retarded vs dyslexic) shows that the dyslexic readers were not significantly similar to the normal and retarded readers in their perceptions of the qualities of their actual class teacher, although there was a significant relationship between normal and retarded readers' ratings ($r_s=0.8$, $p<0.02$). A Kendal coefficient of concordance computed on the averaged ratings of each group on 'ideal' teacher qualities also revealed that the between group assessments were not significantly similar ($x^2=15.02$, NS). A Kendal coefficient of concordance was calculated on the individual rankings of the 24 subjects. The results corroborated this lack of agreement ($df=8$, $x^2=13.76$, NS). Further analysis using the Spearman rank order correlation coefficient to compare pairs of groups as above showed that Retarded readers were not significantly similar to either Dyslexic or Normal readers on the attributes desired in an ideal teacher, although there was a significant correlation between the views of Dyslexics and Normals ($r_s=0.8$, $p<0.02$).

4. Within group comparisons for each subject group's averaged ratings of actual vs ideal teacher qualities using the Spearman rank order correlation coefficient, showed significant correlations for the retarded and normal groups ($r_s=0.683$, $p=0.05$; $r_s=0.783$, $p=0.02$ respectively) while no significant correlation was obtained from the dyslexic group. These results suggest that retarded and normal readers are satisfied with current classroom experience, in contrast to the view of the dyslexic group.

Discussion

These results have a number of implications. Firstly, there is significant agreement within each group on the perceived attributes of their actual class teacher, and yet there is no similarity across the groups in this respect. Further analysis of this latter finding suggests that normal and retarded readers perceive their teacher in a similar way, with dyslexic readers seeing their teacher in a different light. These results could be interpreted as being indicative of a qualitatively different teaching style being directed towards the dyslexic group or alternatively, as suggestive of a lack of interpersonal perspicacity on the part of the dyslexic. This last interpretation, however, lacks credibility, in that there was significant agreement within the group on actual teacher attributes, and it is unlikely that all dyslexics would lack perspicacity in a similar way.

Looking at the rank orderings of the groups, it would appear that normal and retarded readers regard the most salient aspects of their class teacher as being kind and helpful, showing a personal interest and writing nice things on school work, whereas the least apposite related to discipline qualities. Conversely, the dyslexics regarded discipline qualities and a sense of humour as primarily relevant to their teacher, with clarity of explanation, interesting work and writing nice things on schoolwork being least appropriate.

The dyslexic group's perception of discipline as the most salient descriptor of their teachers' behaviour towards them may be associated with the behaviour problems sometimes manifested by these children. However, while these problems are well-documented (e.g. Thomson, 1984), discussions with the class teacher prior to the start of the study revealed no special behavioural difficulty amongst any of the groups of readers. Perhaps a more likely explanation lies in the fact that dyslexic children are often perceived to be failing because of laziness and undermo-
tivation rather than because of a specific cognitive difficulty (Thomson, op. cit.). In such cases, class teachers tend to pressurise the child into expending greater effort; this may be interpreted by the child as disciplinary action of the sort specified on the cards.

Secondly, members within each group had a concordant notion of the attributes they required of an ideal teacher, although, again, comparisons between the groups suggested that these ideals varied according to the type of reader involved. Further analysis showed that normal and dyslexic readers have similar concepts of the ideal teacher, with the retarded group differing from this. Both dyslexic and normal readers required interesting work, favourable work comments, personal interest, kindness and helpfulness in their ideal teacher, while valuing discipline qualities least. Retarded readers placed clear explanation, personal interest, kindness and helpfulness, and favourable comments as the most important qualities of the ideal teacher, with humour and discipline being least important.

Because this study differs in a number of critical features from existing ones, the findings are difficult to place in context. However, at a superficial level they differ from those of Blishen (1969) who found that children valued qualities of understanding, kindness and helpfulness combined with a sense of humour and good discipline most in a teacher. However, since Blishen's results derived from a mixed group, differences in preferences would have been occluded. Furthermore, Blishen's study did not require the rank ordering of a limited number of behavioural descriptors, thereby affording greater scope for open-ended comment.

The degree of concordance between actual and ideal teachers may be considered to be a measure of the degree of satisfaction with present classroom experiences, with the closer the correspondence, the greater the satisfaction (Gage et al., 1963). Both retarded and normal readers showed significant similarity between actual and ideal teacher attributes, although there was no agreement within the dyslexic group. These results suggest that the current classroom milieu may be a less satisfying one for the dyslexic child in that the actual class teachers' qualities were not those that were most highly desired by this group. While only positive attributes were used in the present study, thereby reducing the potential for expressing extreme dissatisfaction, the fact that there was no concordance between ideal and actual teacher ratings suggests that the class teacher these children actually experienced was not the one ideally required. While it is acknowledged that children's judgements of teachers and teaching may not be the most appropriate, nonetheless this discrepancy between actual and ideal may be a further contributory factor, either directly or indirectly, to school under-achievement amongst this group. While it is conceivable that the dyslexic group is dissatisfied because they are not 'succeeding' in school, rather than the reverse, the fact that the retarded readers expressed no similar dissatisfaction operates against this argument. It would seem that dissatisfaction is not simply the result of failure. This accords with Meighan's (1977) findings.

A further point of interest lies in the lack of general agreement among the opinions of the 24 subjects as a whole. While this lack of concordance is contrary to the findings of Meighan (1977) and Blishen (1969), it may be indicative of the very special needs of dyslexic children who formed a significant proportion of the subject sample.

The general implication from this pilot study in terms of teaching approach are important. It appears that amongst this small group of dyslexic readers, the nature of their educational experiences does not accord with their own perceived needs,
Readers' Perceptions of their Teachers

and that these needs are much more aligned with those of normal readers. Given that there is no general lack of teaching competence (as indicated by the Jones questionnaire and the reported satisfaction of the other two groups) it is conceivable that some teachers may not be familiar with the needs of dyslexic readers and therefore may find it difficult to make appropriate provision for them unless they have prior training. Further work involving teachers who have had specialist training for teaching dyslexics needs to be carried out to clarify this point. Even at a more general level there are implications for more emphasis in teacher training on recognising and meeting the needs of individuals and sub-groups within the classroom.

In addition, the fact that the dyslexic group's preferred qualities in a class teacher did not accord with the actual qualities demonstrated may be an important contributory factor in their school under-achievement, in that the sort of class teacher they had was not the type they most desired. Once again, further work needs to be carried out to establish whether educational progress for this group is related to reported satisfaction with the classroom milieu.

Because the numbers of readers and teachers are so limited in the present study, the work would need to be repeated on a larger sample before any generalisations could be made. Similarly, some assessment of the reliability and validity of pupil opinions needs to be established before any real conclusions can be drawn. However, the initial findings from this preliminary investigation tentatively suggest that classroom experiences may vary for different types of reader, and that the quality of these experiences may interact in some way with the child's satisfaction and performance in school.

Correspondence: Carolyn Hicks, School of Continuing Studies, University of Birmingham, PO Box 363, Birmingham B15 2TT, United Kingdom.

REFERENCES


Appendix 1

**TABLE I.** Mean rankings by each group of their actual class teacher (to nearest whole number)

<table>
<thead>
<tr>
<th>Quality</th>
<th>Normal</th>
<th>Retarded</th>
<th>Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher is kind and helpful</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2. My teacher is interested in me</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>3. My teacher has a sense of humour</td>
<td>6</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>4. My teacher writes nice things on my work</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>5. My teacher explains things well</td>
<td>5</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>6. My teacher gives me interesting work</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>7. My teacher is fair</td>
<td>8</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>8. My teacher controls the class well</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>9. My teacher doesn’t shout a lot</td>
<td>7</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

**TABLE II.** Mean rankings by each group of their ideal class teacher (to nearest whole number)

<table>
<thead>
<tr>
<th>Quality</th>
<th>Normal</th>
<th>Retarded</th>
<th>Dyslexic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher is kind and helpful</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>2. My teacher is interested in me</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3. My teacher has a sense of humour</td>
<td>5</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>4. My teacher writes nice things on my work</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>5. My teacher explains things well</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6. My teacher gives me interesting work</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>7. My teacher is fair</td>
<td>7</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>8. My teacher controls the class well</td>
<td>8</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>9. My teacher doesn’t shout a lot</td>
<td>9</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>