

Policy and Prevalence of Dyslexia
in Wales

'Thesis submitted in accordance with the requirements of the University of Liverpool
for the degree of Doctor in Philosophy by Carol Ann Hayes.'

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Abstract

The objective of this study was to explore the numbers of children identified by schools in Wales with dyslexia, with reference to the policies within the twenty two local education authorities for providing appropriate education for these children. The research explores factors such as the absence of standardised diagnostic tests in Welsh, and varying educational policies in Wales, that work to support children with dyslexia.

The thesis provides evidence derived from a detailed investigation of schools in Wales, describing how they identify, assess and sustain children with dyslexia. A questionnaire examined the guidance that schools receive from the policies, implicit and explicit, which are prepared by local education authorities, and examined how, in the bilingual culture of Wales, best practice is ensured throughout the principality. Prevalence figures are provided for the planning of provision and the allocation of resources.

A detailed consideration of research methods with qualitative and quantitative data gathering techniques ensured that the methodology employed, that of questionnaires, proformas and interviews, was appropriate to the objectives of the study and enabled the research questions to be examined in their entirety. A representative sample of schools in all twenty-two local education authorities in Wales was randomly selected for the survey.

The research showed that although there were pockets of good practice, their dissemination and adaptation was not consistent throughout Wales. Further, that there were many discrepancies and a lack of coherence between stated policies and classroom practice. Support for children for whom Welsh was their first language was especially limited. This was compounded by a lack of an agreed definition for the term dyslexia, resulting in considerable disparity between providers in the identification of the condition.

The study concludes by considering the implications of the failure to identify children with dyslexia. The consequences of this policy failure are considered from societal, political and individual perspectives.

Chapter 1

Introduction

*“What (said Elphinston) have you read it through?.....
No, Sir, do you read books through?”*

[Ib 19th April 1773] Dr Samuel Johnson 1709-1784

Introduction

1.1. Origins of the Research

1.2 Rationale for the Research

1.2.1. Stress and Anxiety

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1.6. Study Overview

1.7. Research Questions

Introduction

The focus of this research is to explore the numbers of children identified by the schools in Wales as having dyslexia or dyslexic tendencies and to offset this with an audit of policies within the twenty-two local education authorities. The research question will be to explore whether all children with dyslexia and dyslexic tendencies in Wales are being identified appropriately, and are there coordinated policies within Wales to ensure quality provision for the said identified children.

This section of the thesis sets the work into context discussing the nature of the research, why there is the need for the research at the current time and in the current political climate, and a discussion of the possible methodologies employed.

1.1. Origin of the research question

“Mummy I am so unhappy!” This started the investigation into dyslexia and school policy; a son who could not read at the age of eight, despite an early years teacher for a parent and all the pre-reading activities of stories, talking rhymes, jingles and language experiences. Then came a long battle with schools and local authorities to obtain for a child in their care specialist help and understanding.

At the same time, the supervision of a small-scale student research project brought certain concerns to light. This project examined the number of children with dyslexia in three schools in South Wales and three in North Wales. The project appeared to show that a number of large secondary schools (some with as many as 900 pupils on

roll), were of the opinion that they had no issue with dyslexia in their schools, as they had no children with dyslexia on roll. Miles (2004) estimates a range of 3% to 6% of dyslexia in the population as a whole. It would, therefore, be extremely unlikely for a school of this size to have no experience of children with dyslexia or with dyslexic tendencies; more likely there was a misapprehension, misperception or misreading of the signs of dyslexia in the children in their schools. This brought about the idea that perhaps there were more unhappy children in schools in Wales, who were not receiving the help and understanding that they needed.

The research stage of this thesis began in the year 2000, the research sought to assess the likely number of children with dyslexia or dyslexic tendencies in schools in Wales, by local authority, to enable a comparison with the expected research figures. The schools surveyed were asked to calculate the number of children statemented or referred to them for dyslexia assessments presently on their rolls. The hope was that a wider figure could be extrapolated from the sample if the sample were large enough. Each respondent was asked to give their own definition of the term “dyslexia”, to ascertain that each school’s figures represented the same in each area and to ensure consistency of definition, and thereby reliability of the figures.

Each state financed school in Wales is responsible to a local education authority and is required by the National Assembly for Wales to have a policy for the particular needs of special needs children within their area. Each policy is unique to the authority and compiled by senior teaching staff with specialist knowledge of special educational needs provision and local authority staff with understanding of the financial and administrative facilities within the local area. The policies must adhere to the Special Educational Needs Code of Practice for Wales (2002), as prepared by the National Assembly for Wales.

*“This Code of Practice is effective from 1 April 2002. From that date LEA’s, schools, early years settings and those who help them ---including health and social services ---must have regard to it. They must not ignore it-----
These bodies must fulfil their statutory duties towards children with special educational needs but it is up to them to decide how to do so.”*

(Special Educational Needs Code of Practice for Wales, p. xi)

The existing code, first promulgated in 2002, follows the current government thinking on inclusion of special needs children into main stream classrooms, with appropriate support, such as School Action and School Action Plus policies, offered according to the particular needs identified.

“There is a clear expectation within the Education Act 1996 that pupils with statements of special educational needs will be included in mainstream schools “

(Special Educational Needs Code of Practice for Wales, p. 11).

This research approached all twenty-two local authorities in Wales to identify which policies they had developed for children with dyslexia and with dyslexic tendencies, and how these were interpreted and implemented by the schools within their region.

The secondary research, in the literature review, showed considerable variation in definition, and the lack of agreement between researchers in the field of a clear “standard” definition of dyslexia, which could be followed and understood by all local authorities, and all schools within them. Without a clear standard definition, ensuring that all participants within the programme were responding in the same way was difficult. Differences between authorities, however small, will affect the reading of the research and the possible conclusions that can be drawn from it. The research attempts, not only to ascertain how an authority or individual school defines the condition, but also how that condition is then recognised and managed in individual children within that school or authority. The inability to read to an expected level of a certain age by a child may be only one aspect of this condition, but a more holistic approach is clearly taken by many schools and areas, taking into account physical, social and emotional factors.

The investigation aimed to identify at what age dyslexia and dyslexic tendencies are first assessed in children in Wales and whether those children who were referred for dyslexia were later statemented. Schools in key stage one, key stage two, three and four were all targeted, and questioned about the numbers and age of the children being

referred. This was seen to be an important question for a summary of the research, because it would seem likely that at different ages children will need differing support in place to enable them to fulfil their potential in spite of their disability. For this support to be put in place, it was necessary to ascertain the age of referral. This might also establish a link between diagnosis and assessment. Recommendations from this research will be linked closely to early identification and the importance of diagnosis at the earliest stage related to the ability to put into place the appropriate measures to remediate. The age of diagnosis will also be related to policy provision.

“Nursery staff often feel particularly aggrieved that they have no in-house experts to help them identify difficulties. At a critically important time, when early intervention could be particularly effective and when some difficulties could be ameliorated before the children were even aware that they had them, these professionals have to cope alone.”

(Macintyre and Deponio, 2003, p.2)

These early years are the critical building blocks for the future. If, as Trevarthen (1997) claims, 50% of all learning occurs in the first five years, then it is better to err on the safe side and identify possible difficulties and offer support at the earliest stage.

The research needed to establish how children were tested for dyslexia or dyslexic tendencies, what tests were employed and under what conditions. To establish prevalence it was necessary to establish what the schools, psychologists and authorities were testing for and whether the manner of testing varied from school to school or local authority to local authority. If one school was testing for dyslexia on the basis of “poor reading in relation to intelligence”, and another testing with a more holistic approach, with difficulties of decoding, aspects of reading and writing, plus physical, social and emotional factors, it is difficult to compare like with like. It was also important to understand what conditions children were subjected to when undergoing the tests, for example, did the child need to be able to read to complete the test. Anxiety was thought to be a possible contributory factor to accurate assessment in a testing situation.

“Dyslexic students are often used to feeling anxious at the start of a lesson, confused after a few minutes and totally lost by half time. Giving them the security of a reliable framework reduces this anxiety and allows them to focus upon the more detailed aspects of the task, which they know they may find difficult, without losing the thread of the whole.”

(Mortimore, 2003, p.99)

The research sought to establish whether systems were in place to overcome this, or at the very least to limit its' effects upon the overall assessment of the child.

“.....providing a student with a brief generalised passage prior to reading a longer more detailed piece provides a bridge between the student's existing schema and the new information.....Giving them what are sometimes called advanced organisers makes them feel safer. It reduces anxiety and therefore allows them to focus upon new facts or details that they might otherwise overlook, secure in the knowledge that the schema is reliably available for them to refer to when they want to slot the new information into an appropriate section for future use.”

(Mortimore, 2003, p. 98)

In 2002 there were, according to National Assembly for Wales “StatsWales”, 40,839 Welsh speaking children in Wales for whom Welsh is their first language. These children are often educated through the medium of Welsh, in one of the 492 Welsh medium primary and secondary schools. It was therefore important to know whether any facilities were made available to assess these Welsh-speaking children in the language with which they are most familiar. Questions were asked of both the schools and the policy makers within the local educational authorities, of the support mechanisms in place for Welsh speaking and bi-lingual, dyslexic children.

The National Assembly for Wales has a clear mandate to promote the Welsh language and increase the Welsh language provision in Wales. The Assembly is clear that children must not be disadvantaged because they are speaking their “mother tongue”. Policies need to be in place to ensure that assessment and support is available for Welsh language speakers. The intention of the research was to establish whether

issues such as primary language were taken into consideration in the assessment process.

To establish the prevalence of dyslexia in schools in Wales it was important to establish how the condition was recognised in the child, and who was responsible for referral of that child for assessment. Schools were asked who made the initial approach, perhaps indicating an awareness of the disability and how it might affect the child in his/her work or their social and emotional life. This information was also important to establish the recognised cause of the condition and whether it was medical or educational in origin. Both of these questions are fundamental to the understanding of the condition and the acknowledgement of its existence, and thereby the recognition of its prevalence within the school population by school officials and local education authorities. This then lends credence to a condition that only ten years ago was not recognised in some educational circles.

“...the reaction of the educational establishment to the concept of dyslexia was largely hostile and in some quarters it continues to be so, even though, overall, this hostility is becoming less.”

(Miles and Miles, 1990, p. 93)

If clear prevalence figures are to be established it is important that schools are accurately reporting the referrals for dyslexia that they are receiving. A clear commitment to the Dyslexia Friendly Schools Initiative (launched in Flintshire in the early 1990's) from many schools is encouraging news for those who have been crusading for support for children with dyslexia for many years. However, empty rhetoric and vacant policies do not necessarily fulfil the needs of dyslexic children. What is needed is a school committed to providing financial support for their children and the reorganisation of the school and staffing to achieve this. Inclusion must not mean support on the cheap. The research questioned the policy makers about their obligation to support children with disabilities in the main stream setting, whilst catering for the individual needs of the child and particular needs of the children with specific learning difficulties, especially dyslexia. If the schools do not believe in the accuracy of diagnosis, perhaps their commitment to the referral and support process

would not be as great. This will in turn affect the prevalence figures that they declare for dyslexia.

As a demonstration of the school's commitment to the identification, diagnosis, help and continuing support of the child with dyslexia, schools and local education authorities must have in place clear support mechanisms for the teachers and support assistants, who will be working with the children with dyslexia and dyslexic tendencies. This support must be in the form of training and professional development, to enable earlier recognition and identification of dyslexic children, and in terms of smaller class size and opportunities for one to one experiences with the children. The research questionnaire asks staff in schools whether they believe that they are adequately supported to enable their children with disabilities to achieve to their full potential. Children with disabilities in mainstream classrooms with untrained personnel could be overlooked, and however well intentioned the staff there may be a lack of understanding of the needs of the pupils that may make it more difficult for children to succeed to their full potential.

1.2. Rationale for research

1.2.1. Stress and anxiety

According to Hunter-Carsch (2001), 82% of the dyslexic children and young adults that she surveyed stated that reading and writing difficulties had impeded their progress at school. Of the adults that she surveyed, many said that it had severely effected their vocational options and life experiences. The children in the Hunter-Carsch survey described feelings of fear, shame, anger, frustration, distress and confusion, when they attempted to read and write. This in turn builds up a picture of loneliness, aberration, humiliation, unfair treatment and inappropriate help.

“After I had been diagnosed as being dyslexic I couldn't be helped to overcome my dyslexia, because by that time that I had got myself into such a state that I had a nervous breakdown.....I went catatonic and I was totally agoraphobic. I literally sat at home next to the radiator rocking backwards and forwards, for months and months.....when I tried to kill myself they put a

care order on me and put me away in a special unit.....I was given all sorts of drugs.”

(Hampshire, 1990, p. 33-9)

Reading extracts and statements such as this allows us to see the extent to which dyslexia can affect the day-to-day life, and even the mental health, of those with the condition, if they are not given the right level of support that they need. To enable that support to be put into place it is important to understand the nature and severity of the difficulties. It is vital that the policy makers, in government positions, be aware of the most up to date research in the field, and construct and adapt their policies with this research in mind. This will in turn illuminate and inform good classroom practice.

There has been evidence over the years (Beard, 1987; Crombie, 2002), which associates delays in early reading success with emotional factors, such as anxiety and depression, but it would be unfortunate to jump to the conclusion that these may be causes rather than the results of not learning to read, because the reverse seems more likely to be a plausible conclusion in most cases. Learning to read and anxiety can become a vicious circle of delay, the more anxious the child becomes about his/her inability to read, the less likely he/she is able to absorb the teaching and support that is being offered.

Children have a basic emotional need to be loved and accepted by others, (Tassoni, 2003). This forms the basis of the development of their self-esteem and feelings of empowerment. There is a strong link between the child's emotional development and their ability to learn, (Tassoni, 2003). Children who do not have high self esteem and feel insecure, with no sense of belonging find it hard to show socially acceptable modes of behaviour. According to Tassoni (2003), children who continue to read inaccurately and to have trouble with spelling and handwriting risk becoming frustrated by their own inabilities. In her experience these children are often labelled “slow” and “thick” by the bullies and the uninitiated, and may become moody and depressed. Research by Newman (1999), suggested that by the time they leave school their self-image and worth can have disappeared off the bottom of the scale. These children could well be heading for prison or worse, (Newman, 1999).

Even before they start school many dyslexic children will have experienced difficulties, and even in the first few weeks can be identified as the child who cannot do things. Children who cannot join in and play effectively can become marginalised in the playground. Some children will react to this by becoming isolated, whilst others vent their frustrations by showing aggressive behaviour, this might result in bullying, ridicule and social isolation. The same difficulties can affect the child's experiences out of school, such as cubs/brownies, etc. Here competitive games and the ability to read and write are components of many of the core activities. All of these issues mean that the social and academic expectations in the school environment can result in high levels of stress and anxiety, which may result in psychosomatic symptoms such as stomach aches, headaches, etc. Unless these signs are recognised and action taken, there is always the danger of a child becoming a school refuser.

All this adds up to a child who is very unhappy, and any research which might change the policies in the local education authorities and the support available to these children, must be undertaken to prevent the probability of such a large number of children moving down this route.

*I come to school
I see all the other friends,
Who can rite and read.
But me, I'm all on my own
Not good at riteing.
Not good at reading.
I sit on my bed,
I cry I cry I cry,
But I boh't see why,
It's so hared for me.
Can't you see?*

(Jodie Cosgrave, age 11, Palti, 1998)

1.2.2. Financial Issues

Clearly, identification of dyslexia is bound to have considerable financial implications. The Special Educational Needs Code of Practice for Wales (2002) states that:

“The Code of Practice is effective from 1 April 2002. From that date LEA’s, schools, early years settings and those who help them.....including health and social services.....must have regard to it. They must not ignore it.”

(Special Educational Code of Practice for Wales, 2002, p. xi)

If the identification of the number of children with special educational needs, and in particular children with dyslexia, increases, then this will potentially put enormous strain upon the already overstretched financial resources of the schools and local education authorities. This code states that it has become a statutory duty upon these bodies to allow a child a statutory assessment and statement of need. “Specific learning difficulties” is a label used to identify the group of children with special educational needs under the provision of the Education Act 1981 and dyslexia is also interpreted as being included under section 1 of that Act.

“Increasingly where parents consider their child has not been rightfully accorded the educational resources from the public purse that will alleviate the learning difficulty, the law is involved. Parents are legitimately challenging the opinions of the administrators, psychologists and teachers, in the courts”

(Pumfrey and Reason, 1991, p. 184)

In a situation where demand outstrips resources, it is important to be able to focus the available funds and resources in a cost effective manner.

The introduction of the Local Management of Schools, in 1988 (Circular 7/88), highlighted financial and staffing resource issues, which could adversely impinge upon non-statemented children with dyslexia. For example, over the past few years, the number of Disabled Students’ Allowances paid to students entering higher

education, by the Local Education Authorities, soared, and it is estimated the 70% of these applications are from students with dyslexia (McLean and Singleton, 2005). What is lacking is an explicit policy for resourcing levels of special needs, including how much extra teaching is made available.

Conversely, financial and resource savings would also be possible if clear identification of prevalence were possible, if a long term view were taken of policy formulation. According to Newman (1999), one third to one half of men in British prisons are dyslexic. That is possibly ten times the proportion in the general population. Dyslexic children, too often dismissed by teachers as stupid or lazy, easily fall behind at school, and become bored and disaffected, these children often turn to crime and anti-social behaviour to enliven their self-esteem. Newman (1999), suggests that the costs and financial savings to society of clear identification of dyslexia at an early age, and the ability to remediate early on, cannot be easily quantified, but would be immense. There could be savings on behaviour therapists, vandalism, petty theft, crime, the prison service, probation service, counselling services, the health service, etc. All these issues make it vital that research into identification of the policy and prevalence of dyslexia be conducted and the results acted upon in the near future.

1.2.3. Why Wales?

The principality of Wales was brought to the forefront of British politics in 1998, with the establishment of the Welsh National Assembly Government. This was an opportunity for Wales to make its mark quite distinctively on the United Kingdom and to promote the “Welshness” of Wales and the unique facets of Welsh culture. Owen (2006) shows that the strengths and traditions are different in Wales from their neighbour in England, and there is an economy of scale in Wales, and a tradition of working together, which should enable authorities to come together to tackle and solve problems. The Assembly took charge of the education system in Wales and committed itself to making it different from England, and better than the rest of the United Kingdom. Developing clear and workable policies for the special educational needs children within the principality would be one way of demonstrating the unique qualities of the Welsh system. Wales could lead the way in establishing good practice

in the area, which could be emulated and envied by other authorities and regions in the United Kingdom, thereby making Welsh special educational needs provision distinctive and forward thinking.

The research conducted for this investigation aimed to make comparisons between all twenty-two of the local education authorities in Wales, and highlight the areas of good practice that could be copied and co-ordinated by all of the other authorities. This would allow Wales to lead the way within the UK education structure, and take a strong lead in the management of the education system for children with dyslexia, whilst reflecting upon the distinctive organisations and legislation peculiar to the area.

Before there can be any co-ordination of policies it must be remembered that Wales is a multifarious country with densely populated inner city areas in Cardiff and Swansea in the south, and Wrexham in the north and then vast areas of rural schooling where transport and communications are a problem. This, and the bi-lingual education system, makes it difficult to establish one policy to cover the whole principality. Therefore, a one size fits all concept is probably not suitable....each area has its own unique style, and it could be argued, needs its own unique policies to cover the requirements of the children in that area. The Special Educational Needs Code of Practice in Wales 2002 attempts to provide clear guidance for schools and local education authorities in providing for children with special educational needs.

The purpose of this research was not to establish a one size fits all system, but to work towards a system in Wales where each authority is building upon the examples of good practice, and encouraging the schools in their area to establish a quality service for all the children in Wales, and in particular those children with dyslexia.

Devolution assumes that those with the local knowledge make the best decisions. This way each school, within each authority, could achieve a quality award for the work that they do to promote further understanding of the condition.

1.2.4. Sharing Good Practice.

Local Education Authorities have a duty to support schools to improve, and to ensure that the needs of all their pupils are met. They need to encourage schools to publish information on their special needs policies, and to share good practice when it occurs. The British Dyslexia Association, in 2004, established a BDA quality mark initiative. This initiative works very much on the belief in sharing good practice, and by establishing a “buddy” system where all local education authorities are paired with another, to support each other’s progress. Under this system, the Local Education Authority must submit their documentation and guidance to the British Dyslexia Association, and inspections of the local authorities are arranged as peer mentoring visits, at this point no local authority in Wales has a BDA kite mark of distinction for the support that they offer to children with dyslexia.

There is, however, a need for local education authorities to retain a degree of flexibility, whilst at the same time making sure that there will no longer be wide differences between the consistency of support that is available for children with dyslexia, depending upon where they are living in Wales, something commonly known as “the postcode lottery”.

1.2.5. Wasted Talents

Albert Einstein, Thomas Edison, Leonardo de Vinci, Walt Disney, Hans Christian Anderson are only a few of the frequently quoted names of famous and talented people with dyslexia. Having dyslexia does not mean that all dyslexic children can be geniuses, but does demonstrate that having dyslexia is not a bar to genius and talented behaviour. Davis (1997) suggests that:

“Their genius didn’t occur in spite of their dyslexia, but because of it!”

(Davis, 1997, p. 3)

Davis (1997) goes on to look at the condition in a positive light, as the gift of “mastery”. His suggestion is that children with dyslexia think in an entirely different way, a creative way and a multi-dimensional way, to children without the condition.

That is not to say that they are all geniuses, some dyslexic learners have no outstanding talents, although they all have strengths.

Gardner (1993) discussed the concept of multiple intelligences....that you could be intelligent without formal academic abilities. If the local authorities and schools in Wales deny the existence of dyslexia or its prevalence, or are not properly prepared through their policies to deal with it, then they run the risk of losing a pool of talent which could be tapped into, to take Wales forward into the next generation, and to put Wales on the international map.

1.2.6. Teacher Training

Unfortunately, dyslexia and coping with children with specific learning difficulties is not a separate subject taught on the teacher training programmes in England and Wales. This sort of training has been left to the private sector such as the British Dyslexia Association, the Dyslexia Institute, the Hornsby Trust, the Royal Society of Arts and the Helen Arkell Trust, to offer as continuing professional development.

It is a peculiarity of teaching children to read that it receives a great deal of media and political attention, and the impression given is that it is a simple matter requiring only a little diligence on the part of the teachers. Perhaps it is because usually teachers are very successful at the task, and it is a tribute to our teachers and schools that it is so. However, teaching children to read is a highly complex matter, as can be seen from the wealth of literature concerned with this subject matter, and none more so when the children have a disability such as dyslexia. Teachers are faced with the demands of a society that says that children must be taught to read as early as possible. These teachers must be extremely knowledgeable and highly sensitive to the needs of the children in their care. A single general programme of reading for all children is unlikely to be feasible, and presents enormous challenges for teachers. Children with dyslexia need to be motivated to learn to read, and helped to understand their “ownership” of their literacy capabilities.

To enable teachers to be responsive to the needs of all their pupils, ongoing professional development, informed by current rigorous research needs to be

supported and encouraged as part of an education policy. Only then can teachers make decisions about best practice, programmes and policy design. This research aims to move the body of knowledge upon literacy practices forward, to enable teachers to have access to this knowledge and about the best practice as seen and understood in the light of current research.

1.3. Choice of Data Collection Methods

1.3.1. Preliminary research focus

A preliminary review of the literature in the field identified important sources but also demonstrated that no similar research had been conducted so far and therefore highlighted the need for the investigation.

The literature review enabled the research to be put into context of the work that had already been conducted by others, and thereby avoided any chance of duplication of effort. The review also allowed an insight into ways of collecting and analysing data and for the presentation of the findings. The review enabled a developing structure for the report by indicating possible sub-topics and headings. This was then reinforced by the empirical research and collection of data that were being conducted alongside the major literature review. As the data collection process progressed, these headings were built upon and refined, enabling a more coherent pattern to facilitate the evaluation to compare and contrast the relationships between the facts.

The initial investigation provided the proposed title for the research and the focus for the questions that the researcher hoped to ask. This in turn aided the selection of research methods required in order to answer the questions. After the initial research, questions had been formulated possible research methods and methodologies were identified. Each methodology and method was tested against the type of data required, the sources of data and quality and reliability of data that could be obtained. Due to the large quantity of data required, the research was set within the methodological framework of questionnaires and interviews.

1.3.2. Confidentiality

To encourage participation in the research all participants can be offered the opportunity to remain anonymous, with all the information treated with the utmost respect and with a strict confidentiality policy. All participants can be offered the opportunity to have sight of the final report. This could be of benefit to children and local authorities in the future.

According to NEC (1992) the golden rule is:

“That other people will have to deal with the consequences of your reporting and you need to keep that in mind throughout your investigation” (p.51)

1.3.3. Questionnaires

When potentially large numbers are required for the research the most important and cheapest survey tool is, according to Oppenheim (1966), the questionnaire.

Questionnaires are one method of collecting large amounts of data relatively quickly and reliably. Questionnaires offer anonymity, which with sensitive subject areas may be an important consideration. The questionnaire needs to be long enough to secure the required information, but not so long as to discourage the subjects from completion. The position of the questions also needs to have close consideration, with the questions most important to the research situated at the beginning of the survey.

“Participants may elect to avoid some questions for a variety of reasons (usually unspecified). This happens more often after they have completed part of the questionnaire.” (Green, 2000, p. 20)

Questions need to be carefully phrased so as not to offend the respondents and closed questions can be included which may be considered more objective and easier to code for analysis. Flexibility can be achieved with the use of some open questions, to allow the participants to express their views more freely, to protect the validity of the data, and avoid accidental preconceptions of the researcher. Questions need to be checked

before inclusion in the final questionnaire to avoid leading questions, whilst still routing the respondent along the appropriate path. Routing entails ordering the questions so that, where possible, questions flow easily from one to another in an ordered manner.

Each question needs to be carefully written to focus upon the area of interest. Each question must be selected for relevance to the research. Anonymity can be preserved by not requesting any personal information but this could have the disadvantage of not knowing who completed the questionnaire, and respondents then tend to be those who have a strong conviction about the subject matter researched.

The greatest disadvantage to mail questionnaires is, according to Oppenheim (1966), the poor response rate. Stamped addressed envelopes may be included with each questionnaire and a personalised introductory letter, despite Scott's (1961) claim that personalising the accompanying letter makes no difference to the return rate. The non-response rate and consequent reduction in sample size can be overcome by sending out a second mail-shot, several months after the first, as suggested by Oppenheim (1966).

An ideal questionnaire possesses the following properties, according to Cohen and Manion (1980):

“It is clear, unambiguous and uniformly workable. Its design must minimise potential errors from respondents.....and coders. And since people's participation in surveys is voluntary, a questionnaire has to help in engaging their interest, encouraging their co-operation and eliciting answers as close as possible to the truth.” (Cohen and Manion, 1980, p.106)

1.3.4. Interviews

The investigation into the policies prepared by the local education authorities was conducted by way of a semi-structured interview, with a named representative from the local education authority. Cohen and Manion (1980) describe the interview as a “transaction” which takes place between one who wants to understand something

better and one who wants to give information. Its success does depend upon a motivational factor, how willing is the interviewee to disclose that information. The motivational factor can be influenced by a great range of issues. Circourel, (1964) describes the need for a mutual trust between the interviewer and the interviewee to ensure that the transaction takes place. There is a need for the interviewer to remain in control without probing so deeply that the interviewee begins to feel uncomfortable and adopts avoidance tactics. Circourel (1964) showed that even when a genuine “transaction” took place it was not always clear whether one person always understood what the other meant, however hard they might try. It is not therefore possible to control all the variables with this methodology. Hence, the reliability of the method may be at risk. It can be argued that the advantages of the interview technique outweigh the risks, and the opportunity to probe for possible interpretations are not there in any other methodology. The most positive feature of the interview is that the return rate is good. The semi-structured interview allows for a range of open-ended questions to be included. This places fewer restrictions upon the interviewee, and may result in unexpected responses that could redirect the emphasis of the interview. This type of interview can enable an alternation of factual questions and opinions, thereby enabling the respondent to feel less threatened by a string of one or the other.

Respondents do not always tell the truth or may wish to be seen as more knowledgeable than they really are, thereby creating a bias; by careful structuring of the questions, some of this effect may be limited although never eliminated. Ensuring the validity of the interview can be assisted by minimising this bias, as discussed before, sources of bias may be the characteristics of the interviewer or the respondent and the nature of the questions asked, particularly if they are designed to record attitudes or opinions. In these cases, there can be a misconception on the part of the interviewer. Other issues which may influence the relationship between the interviewer and the interviewee, according to Cohen and Manion, (1980) are colour, religion, social class and age. In the case of a single researcher, these issues are difficult to calculate. However carefully the researcher may try to control the variables within the interview situation, it will always be susceptible to a range of non-rational human factors, such as what happened immediately before and the

interviewee's personal circumstances at the time, emotions and interpersonal relationships.

The semi-structured interview is planned and structured well in advance, with the sequence of questions and schedule carefully prepared with a range of probe questions ready to encourage the interviewee to the limit of their knowledge. This allows for a degree of flexibility and freedom within the conversation whilst allowing a certain track within the interview to be pursued.

The chief difficulty with the semi-structured interview is the issue of coding. If the respondent is allowed to reply in whichever way they please, it can be difficult to analyse and quantify.

1.3.5. Sampling

Because Wales has distinct and clearly defined borders, the sample could be contained within an easily defined and contained area. Issues of time and expense need to be considered early on in the research. By using a questionnaire as the principle research tool, issues of accessibility will not be considered. It is important to ensure as representative a sample as possible. With a large initial population, it is possible to select the sample by purposive sampling, whereby the researcher handpicks the cases to be included in the sample on the basis of a judgement of their typicality. This sample then becomes self-selecting when the returns of the questionnaire are made. Respondents may be those who have a particular interest in the subject matter, or have more time available to complete the survey than others have. Because of probability and chance, however, it is likely that the sample will contain schools with characteristics of the population as a whole, for example, some large schools, some small schools, rural and inner city schools and all key stages. According to Cohen and Manion, (1980) a sample of at least thirty subjects is required for any form of statistical analysis, however the range of the relationships required in this research required a considerably larger sample to explore the subgroups within the final sample. The sample size does not need to represent the population as a whole, although the larger the population the larger the sample needs to be to ensure

reliability and validity of the final conclusions. It must be accepted that some sampling bias or sampling errors may occur.

1.3.6. Analysis

Once the data collection is complete, the phase of data processing and analysis begins. Questionnaires and coded interviews can generate large quantities of numerical data, depending upon the questions asked. This will influence the way in which the information is collated and presented.

Quantitative data will usually be collated in a graphical format. Qualitative data, such as open questions can be coded and converted to a quantitative format. Results from the data can then be collated into a series of results tables, and from this presented in a graphical format. This can highlight the results more effectively than the raw data, or numerical format. The results can be formatted with the use of the computer software package “SPSS for Windows” programme. This programme will enable an ease of analysis and manipulation of data so that a range of differing presentation formats can be made at the ‘touch of a button’. This range of formats will enable the researcher to compare and contrast the data.

Nominal data will enable a classification of scale to be used. It is not possible to measure the distance between data items of this kind, but data can be categorised and counted for the frequency of each category occurring in the data. Ratio data will also be present in the data for this research, that is, data that has recognised measurements and a total zero.

All quantitative data requires analysis that involves preparation of the data to put it into an “analysable” format. This data is then coded into response categories and collated into tables of response. This will enable the whole data to be separated into its component parts, in order to find meaningful patterns and relationships. The descriptive statistical techniques used in this research will be frequency distributors, mean, median, mode and standard deviation. This will provide a summary of the pattern of information that can be found in the sample.

Data collection from in depth interviews allows less control over the type and range of information that respondents give than methods such as questionnaires. Responses to open questions are hard to predict. Words, expressing attitudes and opinions can cause problems for the researcher, when making sense of the data obtained. Large amounts of data collected will not be useful to the research focus and will require data reduction. Patterns, themes or similarities will occur in the data and the task of analysis is to find them, name them and number or code them. Statistical tests can then be applied to describe the data more effectively and test for correlations. This requires a careful and sensitive approach to the data to retain the meaning that the respondents intended to give in their responses. In this way, much of the qualitative data can be converted to quantitative format.

Analysis is a continuous process that extends throughout the study, beginning before the collection of data, as the subject matter and analytical framework for the research is selected. Analysis continues with the construction of the questionnaire and interview schedule where it is inevitable that some questions will be rejected and rephrased. Life experiences, previous reading and values all contribute to the analysis throughout the study.

1.3.7. Reliability and Validity

When deciding whether a piece of research is valid and reliable it is important to consider the suitability of the research methods used, the target group and how accurately and representative the data presented is likely to be. According to Cohen and Manion (1980), the validity of questionnaires needs to be viewed from two perspectives. Firstly, whether the respondents who completed questionnaires did so accurately and secondly, whether those who failed to return would have given the same or similar distribution of answers as did the returnees. A major difficulty with questionnaires as a research method is that it is never possible to know the answer to these questions with absolute certainty.

Reliability refers to the means or the methods used to gather data and their relationship to scientific rigour. In other words, the information provided by the

assessment must be accurate, consistent and predictable. Having unreliable data collection methods can lead to problems of validity in the research.

Careful piloting of the research tools prior to the research investigation will help to ensure the validity and reliability of the research project. This can identify possible faults and weaknesses in the methodology and will give time for the adjustment of the data collection tool, before the full research study. Pilot work may be of the greatest help when devising questions for questionnaires and interview schedules. This can identify ambiguities and misinterpretations.

A more detailed explanation of the research methodology used during the research is given in chapters five and six.

1.4. Defining Features of Wales

1.4.1. National Assembly of Wales

As a result of Devolution in 1997 and the creation of the Welsh National Assembly, education in Wales is now seen as a distinct and separate system from the rest of the U.K., and is one of the few areas of government that has been almost completely devolved to the Assembly. With the National Assembly came the appointment of Jane Davidson as the Minister for Education and Lifelong Learning, and a range of new initiatives for children with special educational needs, including the Special Educational Needs Code of Practice for Wales (2002), Inclusion and Pupil Support Consultation Document (2005) and many others. This has created a small but listening ear and an accessible policy making assembly, which is not yet buried in the bureaucracy of Westminster. Opportunities for change in the principality have never been greater and the publication of the Inclusion and Pupil Support Document in April 2005 demonstrates the range of opportunities to influence the changes made to the education system within a clearly defined area of the UK. The Welsh Assembly Government has the opportunity to shape a better future for the children in Wales. Certainly dynamic research in the principality is needed to help to assist this new vision.

The Inclusion Pupil Support Consultation Document (April 2005) clearly sets out a vision of inclusion for all children in Wales, endorsing the right to a mainstream education outlined in the Special Needs and Disability Act 2001. The document emphasises that where parents/ carers want inclusive education for their children, then everything possible should be done to provide it.

“Equally where parents or carers want a special school place their wishes should be listened to and taken into account.”

(Welsh National Assembly, April 2005, para: 5.3)

This time of change and restructure is a time to ensure that Wales gets things “right”, with policies lead by research findings informed by the experience of workers on the ground. This is a blank sheet to work on where nothing is ruled out.

1.4.2. Dyslexia Friendly Schools Initiative

The phrase “Dyslexia Friendly Schools” was adopted by Neil MacKay in the early 1990’s when working with children with dyslexia at Hawarden High School in Flintshire, North Wales. This involved teaching children with dyslexia in small groups for five hours a week by an “experienced and highly qualified dyslexia specialist”. This was the start of an initiative which has spread throughout England and Wales and been taken up by the British Dyslexia Association. Recently a British Dyslexia Association Quality Mark has been launched to identify local education authorities who meet the needs of the dyslexic learners within schools in their area. According to the British Dyslexia Association web site www.bda_dyslexia.org.uk (accessed 23.07.05),

“In the final stage before the mark is awarded LEA’s must provide extensive evidence that they are promoting and supporting exceptional practice within the LEA and schools”

At the point of writing no Welsh local education authorities have gained this new status although eighteen English authorities are working towards it with awards already being made to Liverpool, Cornwall and Staffordshire.

When local government was reorganised in Wales in 1996, Swansea inherited the highest percentages of statements for dyslexia in any Local Education Authority, and few teachers trained to teach children with dyslexia. Swansea used this opportunity to work in partnership with all interested groups to formulate a policy to tackle the problem as they saw it. They created a package of training initiatives that raised the profile of the Dyslexia Friendly Schools initiative by developing the document “Dyslexia Friendly Education---A Good Practice Guide”. At the heart of this document was that each school should have a suitably qualified and experienced teacher to work with the children with dyslexia and that all staff should have dyslexia awareness training. MacKay (2005), the original architect of the Dyslexia Friendly Schools initiative, describes this as:

“The cornerstone of the initiative, without this the initiative is doomed to failure.” (MacKay, May 2005, Early Years Exhibition Workshop, Manchester).

Clear partnerships with parents are seen as vital to ensuring the high expectations that will be needed to assist these children and their families.

Wales would, therefore, appear, at first glance, to be at the forefront of the drive to improve the support and teaching for children with dyslexia. Research to demonstrate that such policies are still leading the field is vital, particularly in view of the British Dyslexia Association audit on Dyslexia Friendly Schools, which showed that routine screening was not taking place in many schools. This audit demonstrated that training was not always in place and that over seventy percent of schools had no staff that were qualified in Dyslexia Friendly teaching methods, and sixty seven per cent of schools had not even had an inset day on dyslexia or dyslexia issues (BDA, 2001).

1.4.3. Welsh Dyslexia Project

In September 2000, the Welsh Dyslexia Project presented to the Welsh National Assembly their vision for the education and training of children in Wales. The Project undertook to produce the Wales Dyslexia Screening Test, a project by Dr Victor Van Daal and Dr Llinos Spencer, to produce a dyslexia screening test that could be administered to all children in Wales, including those children for whom Welsh is their first language. The standardised norms were established and the tests were created to be equivalent in English and Welsh, with words matched closely for frequency and word length. The establishment of appropriate testing processes is a great advance for the children in Wales but having the assessment materials available has to be matched against the number of local education authorities and schools who use the materials and are aware that these materials are available.

“One of the most salient aspects in relation to policy is its relationship to practice.” (Reid and Fawcett, 2004, p.8)

Sponsorship from the Welsh Dyslexia Project helped to drive this research, into policy and practice in Wales forward, and will help to give further understanding of any conflict between policy and practice. Such conflict could have devastating effects upon the dyslexic children in Wales; the curriculum must be available to all children. The practice, which needs to be an interdisciplinary collaboration between the sciences and education, needs to be informed by the research and supported by the policy.

1.4.4. Bangor Dyslexia Unit

Wales is also home to the Dyslexia Unit at the University of Wales, Bangor. This is a nationally and internationally renowned specialist unit, and was the first of its kind established in 1977. This unit developed the “Bangor Teaching System”, and a range of continuing professional development courses for teachers.

This unit is at the forefront of published research into dyslexia and in particular dyslexia within Wales. The unit has developed a range of software programs to complement the units teaching systems, which are used across the world.

1.4.5. Sampling Population

No matter how extensive the research it is not possible to study all the schools and local education authorities of interest to the research. To research all schools in England and Wales is not feasible for a single researcher. It is essential to take account of pragmatic factors such as time constraints for data collection, accessibility of the population and resources available. Quantitative data, such as questionnaires can include more participants in the sample, but more qualitative data collection methods, such as interviews with a single researcher, involves fewer participants because each participant generates a large quantity of data to transcribe, code and analyse in some way. For these reasons, the research was constrained, and to use Wales for the sample population with its clearly defined boundaries and unique education system ensured a large enough, but logistically manageable population.

In addition to financial constraints, the specific interests of the researcher governed the sampling decisions. With twenty years of experience within the Welsh education system the researcher had a particular interest in, and anecdotal knowledge of, the policies already in place within a bilingual education system in Wales. Working within the Welsh system provided accessibility to the local education authorities in parts of Wales.

1.5. Topicality

One of the central themes to emerge from the 3rd International Multilingualism and Dyslexia Conference, held in Cyprus in July 2005 was the enthusiasm and energy that exists now to discover more about this condition, which until ten years ago was still being denied its very existence. What also emerged was the range of explanations for the condition, and the only thing that there was agreement about was that there was limited agreement. The origins of the condition, remediation and even an appropriate definition were all subject to further research and scrutiny. New findings from

research are reported in the newspapers and the academic journals almost weekly and each research team is fervent in their belief in their own particular theories.

Dyslexia is also becoming “big business”, with many commercial enterprises “jumping on the band wagon” and sometimes taking advantage of distraught parents/carers and families desperate to help their children with the condition. Computer programs, gadgets and gimmicks are springing up in abundance, but with still no clear indicator of whether it might be food supplements, exercises, brain scans or genetics that could be the “golden bullet”.

What does appear to be emerging is that there are anatomical and neurological differences (Rack, 2004), between children with developmental dyslexia and those who do not. This is an exciting time for those working in this area with so much yet to discover and so many pieces of the jigsaw still to fit together. The research findings must inform our understanding of dyslexia and feed naturally into the areas of policy and practice.

After so many years “in the wilderness”, there is evidence of increasing Welsh Assembly Government interest in assisting children with specific learning difficulties in the light of the Special Needs Code of Practice in Wales and their financial support for the work of organisations such as the Welsh Dyslexia Project.

Felicity Walters, journalist for the Times Educational Supplement 29th July 2005, reported upon the gulf in council spending which, she says, was laying some special needs children in Wales open to falling victim to a postcode lottery for support. The Welsh Assembly Government money for education is not ring-fenced; so that the budgets for special educational needs provision for each authority may reduce in real terms in the year 2006-2007. According to statistics released by the Assembly, 1,622 children in Wales with special needs were educated outside their local authority, because facilities within the authority were not available. Efforts to restrict the number of statements for pupils with special educational needs are being made on financial grounds, and not on the needs of the children. Spokespeople from local authorities such as Anglesey are reported as saying:

“A very high proportion of our special needs spend is tied up with statemented children and so we are now looking at reducing that and delegating more of our resources to schools”

(Walters F, TES, 29.07.05.)

However, the architect of the inclusive movement, Baroness Lady Warnock, who in 1978, called for greater inclusion of special needs children into mainstream schools and the right of children to special needs provision, now believes that her concept of inclusion has become “muddled” and that the “worthy ideal” of inclusion has gone too far. Baroness Lady Warnock (2005) is now calling for a new commission to review the situation. She writes that the statementing process has become too “bureaucratic and expensive”.

There is a strong belief that inclusion has the power to remove potential barriers to learning and provide a learning experience that will suit everyone. This belief is still to be proven, but it forms a major element in much of the recent legislation. It is possible that inclusion has the potential to remove traditional barriers to learning such as place, time, access and other well-established barriers. However, it is becoming clear that the introduction of inclusion brings with it new barriers associated with flexibility, materials and delivery methodologies. These new barriers can be just as real, and a great deal of research is still required before the full effects of inclusion can be fully recognised.

1.6. Research Questions

The broad aim of the research was to further the theoretical understanding and practical application of research into the prevalence of dyslexia, and a critical examination of policy and this phenomenon within the principality of Wales. More specific objectives were to build a new understanding and comprehension of the diversity of issues, and complexity of the subject matter. The research was conducted to identify these complexities, any possible shortcomings, challenges and the applicability of the findings to what we know and do for children with dyslexia in Wales.

As this research was primarily of an exploratory and descriptive nature it was decided to formulate a series of research questions rather than present a set of formally stated hypotheses, so as to gain a better understanding of the topics under investigation. The intention was to adapt an empirical inductionist frame of reference to guide the work without making any predictions or assumptions about what the research might find. Formulating a hypothesis may lead to either conscious or unconscious bias or a possible manipulation of data to bring about the desired outcome. These possible distortions can be unintentional and unconscious and may prevent the researcher from noticing other phenomena that might be important to the study.

Three specific questions flowed from this:

- What is the prevalence of children with dyslexia or dyslexic tendencies within the state funded school population of Wales?
 - a) *Does this differ between the twenty two local education authorities in Wales?*
 - b) *Does this differ between individual schools?*
 - c) *Does this differ between age groups?*

- Are children in Wales with dyslexia or with dyslexic tendencies, being appropriately identified, diagnosed and remediated?
 - a) *What methods or tests are being used to identify, diagnose and remediate?*
 - b) *What procedures are in place to facilitate this process?*
 - c) *What definition of dyslexia is being used in the schools and authorities to identify, diagnose and remediate children.*

- Are there co-ordinated policies within and between the twenty two local education authorities in Wales to ensure consistent quality provision for those children identified?
 - a) *If there are no co-ordinated policies, what policies do they have in common?*
 - b) *How is information from such policies disseminated?*

The research questions posed were selected for their personal interest to the researcher but also their feasibility within the constraints of time, finance and availability of resources. The research questions were selected for their clarity and freedom from ambiguity, and for their significance to our advancement of knowledge about educational practice and human life. The general purpose of this research is to add knowledge to the field of education at a time when the identification and remediation of dyslexia is viewed by many as vital to improving the life chances of the children who are struggling with literacy issues. It is hoped that teachers and administrators will modify their structures and practices in the hope of achieving greater educational gain for the children in their care. This study is one attempt to provide data, which currently does not exist in Wales.

Study Overview

Chapter One (Introduction)

This chapter offers an introduction to the whole study mapping out what lies ahead and the final destination. This section produces a discussion of the basis for the research, the theoretical and practical reasons for the research taking place and setting it into the context of the time, place and method.

Chapter Two (Literature Review)

This chapter puts the research into the context of previous research within the field. There is an historical look at the definition and identification of dyslexia over the last one hundred years and an even-handed discussion of the new areas of research coming to the fore, in terms of genetics, brain anatomy and environmental factors. It is not possible within the scope of one study to include all the available literature but an attempt has been made to highlight contradictions and significant breakthroughs in an historical context. This chapter demonstrates that the research conducted is original and needed to be conducted.

Chapter Three (Policy Formulation and Implementation)

This chapter offers a critical review of the literature on policy making, policy design and evaluation and sets the research into the context of policy formulation. The chapter contains an examination of the definition of a policy as set within an educational framework, the role of policy makers the implementation of policy initiatives.

Chapter Four (Research Methods Review)

Chapter four reviews the ongoing debate relating to the use of diverse methodologies and reveals a considerable disparity of opinion. The chapter examines some of the issues related to the selection of methodology with reference to the subject area examined within this research.

Chapter Five (Methodology and Analysis...Questionnaire)

This chapter highlights the methodology used for the study and the preparatory work undertaken before the preparation of the questionnaire. This chapter also contains the raw data and data analysis for the questionnaire. A discussion of the methods used for the research and how the research was conducted from inception to completion is also given in this section, including details of pilot studies and initial thoughts.

Chapter Six (Methodology and Analysis....Interview)

The study clearly contains two quite separate methodologies and strands to the research. This chapter continues the methodology and consideration behind the study with the raw data and analysis of the interview process. This demonstrates the collection of data from the policy makers and educational psychologists from each of the twenty-two local education authorities in Wales.

Chapter Seven (Findings)

This chapter takes the reader through the findings of the research with analysis and explanation. The research findings are linked to the existing body of knowledge,

explored earlier in the thesis, and highlights significant areas that will be explored further in the next chapter.

Chapter Eight (Conclusion)

The conclusion demonstrates the significance of the findings, draws together, and synthesises the threads of the research. This chapter also indicates where further research can use the findings discussed in chapter five, and move the body of knowledge forward into new and innovative areas.

Chapter 2

Literature Review

“It is better to be able neither to read nor write than to be able to do nothing else”

[William Hazlitt 1778-1830 On the Ignorance of the Learned]

Introduction

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Introduction

The aim of this chapter is to highlight the reason why the research was undertaken, by reviewing previous literature, research and government funded initiatives. This review is undertaken in sections 2.1 to 2.6.

This section of the thesis highlights the main contextual factors that have influenced the growth and history of dyslexia in Wales to date. This in turn provides a basis for considering the main research area. The contextual factors are summarised under five main headings:

Definitions

Aetiology

Bilingualism

Policy Implementation

Welsh Issues

2.1 Definitions

A potential difficulty for those who research the condition of dyslexia is that there are inconsistencies of definition, (Irlen; 1991, Johnson and Peers; 2003). Studies from around the world demonstrate the inability to agree a consistent definition. According to Guardiola (2001), the first reference to the concept of dyslexia occurred in 1872 with the physician R. Berlin of Stuttgart, Germany, who used the term to describe the case of an adult with acquired dyslexia, which is a loss of reading as a consequence of damage to the brain. In 1895, James Hinshelwood, an optic surgeon from Glasgow, published an article in the "Lancet". This article referred to a condition that Hinshelwood described as 'word-blindness', this inspired W. Pringle Morgan, a British G.P. to describe the case of a fourteen year old intelligent boy who, apparently, could not learn to read. This article, published in the British Medical Journal (1896), is generally regarded as the first, or one of the first reports of congenital word-blindness.

Hinshelwood continued to publish a series of books and articles that defined dyslexia as a hereditary defect that affected the acquisition and storage, in the brain, of visual

memories of letters and words, which appeared to be more common in boys. Hinshelwood (1917) was of the opinion that this was a remediable condition, but had underlying biological causes. Despite this early recognition of the condition, dyslexia was not recognised in the United Kingdom until 1970, in the Chronically Sick and Disabled Persons Act. In 1993, Dyslexia was defined as a 'special educational need' in the Education Act of that same year.

In the U.S.A. Samuel Torrey Orton (1937) proposed a genetic basis for dyslexia, but gave greater emphasis to a deficiency in the visual perception of letters, due to a brain malfunction, causing reading and writing errors, reversal of letters or words, mirror writing and orientation difficulties.

By 1975, the definition of dyslexia preferred by the World Federation of Dyslexia was that 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, 1975, p. 75)

This definition implies that those who are dyslexic must have "adequate" intelligence (this was defined by Critchley (1975) as an IQ score of 90 or more). This was introduced to distinguish children with dyslexia, from children whose reading was poor for their age, because of general learning difficulties. This definition emphasised the unexpected nature of the condition, and the discrepancy of the condition.

According to Snowling (2000), there are some very ill defined terms within this definition and she takes up the point of how much intelligence is needed for a child to learn to read. Snowling (2000) asks what is meant by 'socio-cultural opportunity'. This, she says is a definition by exclusion, and only states what the child cannot do, ignoring the more positive view of Davis (1997).

Critchley's (1975) definition also presupposes that the child has experienced appropriate reading instruction. This according to Ellis (1984) implies that a child diagnosed with dyslexia tends to be the:

"...bright offspring of 'good' homes attending 'good' schools"

(Ellis, 1984, p.106)

This concept is undoubtedly the origin of the popular misconception that dyslexia is solely a "middle-class disease", rather than the tendency for these to be the children that psychologists feel most confident to diagnose, and where they can exclude other obvious causes of reading failure (Ellis, 1984). At this stage, reading failure appears to be the only criteria for diagnosis of dyslexia.

By 1981, Tansley and Panckhurst had coined the term 'Specific Learning Difficulties'. Still the concentration was upon children who exhibit severe reading difficulties, but they now acknowledge that there could be associated problems, such as spelling, writing, number work and/or speech. The term 'specific learning difficulty' was, at this time, frequently used synonymously with dyslexia (Pumfrey and Reason, 1991). The term 'specific learning difficulty' does imply that there is something specific about this condition, according to the Shorter Oxford English Dictionary; specific is "*having a special determining quality*". This is different to a 'general' learning or academic difficulty, which in turn implies exclusionary aspects to the term. Turner (1997) described it rather as a 'subset' of difficulties, which included, within the range, conditions such as ADHD and autism, with only some areas of functioning affected in each condition.

Tansley and Panckhurst (1981) define those suffering from Specific Learning Difficulties as:

"children who in the absence of sensory defects or overt organic damage, have an intractable learning problem in one or more of reading, writing, spelling and mathematics and who do not respond to normal teaching."

(Tansley and Panckhurst, 1981, p.259)

Despite these definitions Pumfey and Reason (1991) note that many educationalists and educational psychologists remained unwilling to use a concept that they considered flawed, on the evidence available at the time. Friction frequently occurred between the believers and the sceptics. According to Whittaker (1981):

“We do not have a medical condition called dyslexia. We have an educational problem about how to teach more effectively.”

(Whittaker, 1981, letter)

A core concentration upon reading failure is beginning to open out to cover a broader horizon such as the definition given in 1995 by Frost and Emery:

“Phonological core deficits entail difficulty making use of phonological information when processing written and oral language.....problems with phonemic awareness are most prevalent and can co-exist with difficulties in storage and retrieval.....Children with dyslexia have difficulty segmenting words into individual syllables or phonemes and have trouble blending speech sounds into words”.

(Frost and Emery, 1995 [online] accessed 03.03.05.)

The British Dyslexia Association in 1989 defined dyslexia as:

A specific difficulty in learning constitutional in origin, in one or more of reading, spelling and written language which may be accompanied by difficulty in number work”.

(British Dyslexia Association, 2001, p.5)

It was at this time also, according to Doyle (1996) that the British Dyslexia Association, began to recognise that difficulties might also occur with motor skills and general information processing. Doyle (1996) recognised that dyslexia is possibly not one condition and breaks down the term developmental dyslexia or cognitive dyslexia or specific developmental dyslexia into three different subgroups. These groups he called visual dyslexia, phonological dyslexia and surface dyslexia. Visually dyslexic children he describes as children who take longer than non-dyslexic

children to perceive letters words or numbers when they are flashed up on a screen before them. Phonologically dyslexic children are those who have difficulties analysing sounds and are unable to read irregular or nonsense words. Surface dyslexia occurs when children recognise words by sounds, but not their written appearance. There is nothing wrong with their phonological skills and they are able to read nonsense words. This concept of dyslexia stresses the problems of word decoding rather than just reading comprehension skills.

By 1997, Martin Turner described a shift of position in the definition of dyslexia towards a broader and more inclusive approach, to include issues of poor motor control and difficulties with speech and balance. Turner (1997) adopts the definition given by the Dyslexia Institute in March 1996, which begins to recognise the talents of the dyslexic child:

“Dyslexia is a specific learning difficulty that hinders the learning of literacy skills. This problem with managing verbal codes in memory is neurologically based and tends to run in families. Other symbolic systems, such as mathematics and musical notation can also be affected”

(Dyslexia Institute; 1996 cited by Turner, 1997, p.11)

This definition notes that dyslexia is not one kind of learning difficulty but often co-occurs with other disorders. Turner (1997) suggests that dyslexia can occur at any level of intellectual ability and can accompany, but is not a result of, a lack of motivation, sensory impairment or meagre opportunities.

“Many dyslexic people have visual; and spatial abilities which enable them to be successful in a wide range of careers”

(Turner, 1997, p.11)

This shift of paradigm from disability to gift is taken up by Ronald Davis (1997) who discusses in his book “The Gift of Dyslexia”, that dyslexia can be considered as a “*Perceptual talent*” (p.7). Davis (1997) recognises that no two people with dyslexia are the same or experience the same condition. As a consequence, Davis (1997) suggests that dyslexia cannot be definitively recognised. He accepts that symptoms

are likely to be distortions of vision, hearing, balance, movement and time, but the severity and degree to which each of these effects a person will vary from child to child.

In 1997, Frith described dyslexia as a 'cultural phenomenon'; he was of the opinion that it was not a condition observed in non-literate cultures. Behavioural signs and symptoms will vary according to the age of the child, their ability, motivation, experience, and in particular, the writing system in which they are learning. Frith (1997) described dyslexia on three levels.

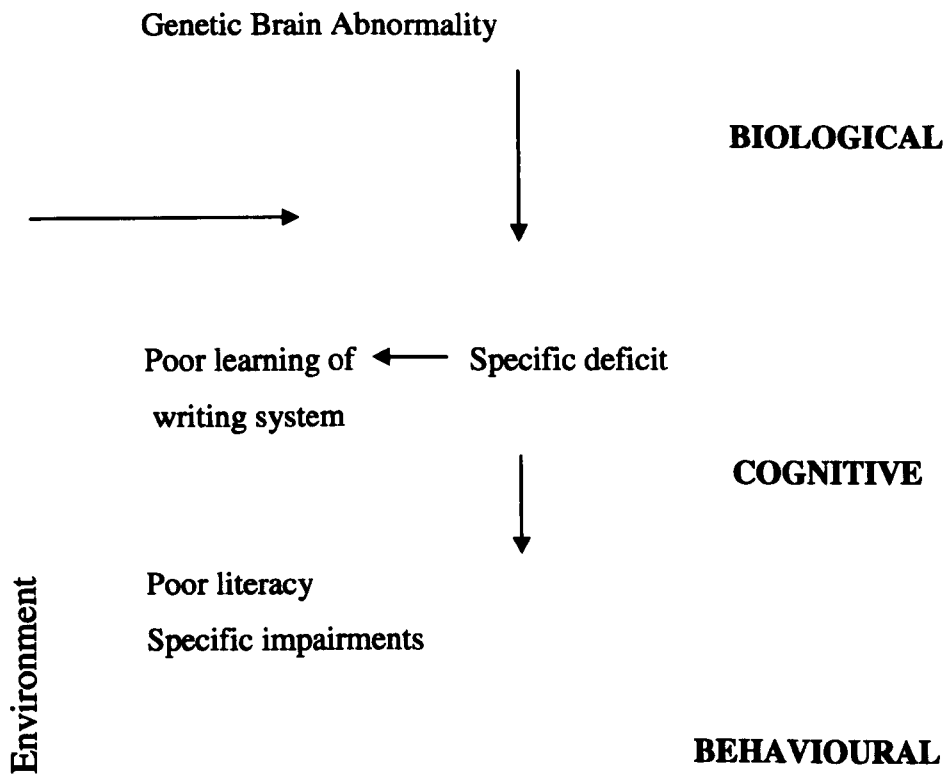


Figure 2.1 A Causal modelling diagram applied to dyslexia (Frith 1997)

The Division of Educational and Child Psychology (DECP) of the British Psychological Society published a report on dyslexia in 1999. This report stated that:

“Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty. This focuses on literacy learning at “word level” and implies that the problem is severe and persistent despite the appropriate learning opportunities. It provides the basis of a staged process of assessment through teaching”

(British Psychological Society, 1999, p.18)

This is described by Reason (2001) as a working definition, as opposed to an operational definition, which she suggested should be more specific and focused. This working definition contained no exclusionary criteria, children of all social classes, and levels of learning can be included. It is, however, a definition that waits for failure to occur (Reason, 2002). This is not a definition (Fawcett, 2003) that allows for early identification before failure is evident. It may be that any definition needs to be ‘operationalised’ (Reid, 2002), for different educational contexts. This becomes apparent in the National Assembly for Wales document ‘The Special Educational Needs Code of Practice for Wales’ (2002), which does not attempt to define the condition, only to direct teaching staff awareness of language processing skills, memory, literacy, both written and oral, sequencing, organisation, motor competence, processing of abstract ideas, concepts and experiences and the benefits of first hand sensory and physical experiences.

In March 2001, the British Dyslexia Association published an updated definition of dyslexia that encompasses many of the aspects so far discussed:

“Dyslexia is best described as a combination of abilities and difficulties which affect the learning process in one or more of reading, spelling, writing and sometimes numeracy/language. Accompanying weaknesses may be identified in areas of speech processing, short term memory, sequencing, auditory and/or visual perception, spoken language and motor skills.

Some dyslexics have outstanding creative skills. Others have strong oral skills. Whilst others have no outstanding talents, they all have strengths. Dyslexia occurs despite normal intellectual ability and conventional teaching. It is independent of socio-economic or language background.”

(British Dyslexia Association, 2001 [online] accessed 02.12.01.)

Macintyre and Deponio, (2003) describe dyslexia as “*a series of common features*” within a specific learning difficulty that overlap, making a clear definition or diagnosis a difficult and a bewildering task. This theme of overlapping common features is taken up by Miles (2004), in her description of dyslexia as a ‘syndrome’, or a collection of associated characteristics that vary in degree from child to child encompassing clusters of talent and problem. This is a multivariate explanation rather than relying on one causal factor. Frith (1997) described dyslexia as difficult to define because it can be observed at different levels, biological, cognitive and behavioural. It may be that Elaine Miles (2004) is right and that we need to refine our definitions as our knowledge grows.

More recently in a Channel 4 documentary programme (Dyslexia: The Myth, 08.09.05.) Professor Julian Elliot of Durham University questioned whether dyslexia existed at all as a discrete condition. This programme has promoted much debate within the dyslexia “industry” which has been largely critical of his assumptions.

Bancroft and Carr (1999) refer to this kind of debate as the “bubble” or the “continuum” argument. That is children with dyslexia and literacy difficulties differ in kind from other children, or that the development of reading and spelling is a problem, but all children develop in a similar way and differ only in the extend of their difficulties. Miles and Miles (1990) describe this as a “*unity versus diversity*” argument. This would imply that the diversity ‘camp’ cannot accept a single cause for dyslexia, or cannot even see this as a discrete condition; whilst the ‘unity’ faction recognise a coherent pattern, despite individual differences in each child. Dyslexia is about processing language, multitasking and managing all the complicated things that the twenty first century demands. According to the Dyslexia Institute (2005), Professor Elliot (2005), misses the point when referring to dyslexia only in terms of reading and literacy skills. The Dyslexia Institute web site (accessed 08.12.05)

suggests that it is about so much more than just reading differences and suggests that even when reading and literacy skills improve that other difficulties associated with dyslexia remain, such as poor short-term memory, organisation, sequencing and other physical differences.

Professor Elliot on the Channel 4 programme (2005) argued that there was no point in diagnosing dyslexia because it was largely an “emotional construct”. This type of academic argument and attempts to establish a discrete concept of dyslexia, results in a child being labelled as different or as failing, whereas the continuum or diversity concept sees children more as individuals. However, according to Poole (2003) to establish any sort of help or support for these children, they must first be labelled as dyslexic.

“The existence of several definitions with different possible causations reflects the lack of an agreed, reductionist, explanation for dyslexia, but has become a resource/time consuming debate because a ‘diagnosis’ is essential in order to gain assistance for the child with learning problems under current guidelines”

(Poole, 2003, p.170)

Professor Elliot (2005) implied that all children with reading difficulties were receiving extra help and that enormous resources were spent in schools as a result of the identification of something that cannot be defined. The Dyslexia Institute (2005) refutes this argument:

“This is absolutely untrue as revealed from Ofsted and the Audit Commission and the experiences of thousands of parents”

(<http://www.dyslexia-inst.org.uk/responsetoch4TV.htm> accessed 08.12.05.)

According to Poole (2003) many children never get as far as the assessment, because help and support is dependent upon “diagnosis”, then ‘battles’ for recognition take place between parents, schools and local education authorities for available resources.

“But this need to legitimise the problem exists only if one views the child with learning problems within the scientific paradigm which currently drives education policy”

(Poole, 2003, p.171)

Morgan and Hart (1989) describe moving away from a deficit model of dyslexia to a more *“environmental and ecological”* model relating a child’s development to his/her interaction with the various environments that they encounter. This would involve widening the perspective to take into account all aspects of a child’s life, not purely school-bound, including the child’s family, day care, immediate relationships with carer in the early years, nutrition and so on, thereby, placing dyslexia outside the confines of education, possibly towards a medical rather than educational model. Wilsher (1996) even claims some success with treatments for dyslexia using drug treatments, and claims statistically significant results with the use of Piracetam, the first of the nootropic drugs, over the use of placebos for developmental reading disorders.

An operational definition is important on a global level, as this will form the basis of all further research and policymaking. On an individual level, a clear definition will assist identification and consequent support. It is necessary for a clinical understanding of dyslexia, but any definition must be theoretically sound and supported by research that can be objectively measured, valid and useful. A definition should provide clear indications of how to identify whether a child is dyslexic or not.

Definitions need to inform but can only do so if they are contextualised to the working practices in place (Reid, 2002). The importance of a definition is to enable the focus to be on the best ways to help children who have particular difficulties, but it is also important to schools, teachers and psychologists who are increasingly legally responsible for children’s progress (Long, 2001). Whether that definition is a within-child constitutional definition or one based more upon environmental factors may only become known when the research linked to causal modelling is accepted by all practitioners.

Section 2.2 Aetiology

This section will examine some of the sometimes contradictory research findings put forward for the causes or aetiology of developmental dyslexia. This implies possibly falsely, that only one cause will, or even can be found. The complexity of the research, the nature of the definitions covered in section 2.1., and the range of possible hypotheses are unlikely to produce a simple definitive cause in the near future. According to Miles (1987), this condition is constitutional in origin, but may well be educational in management. Frith (cited in Reid and Wearmouth, 2002) described three levels of causal models of dyslexia, the biological, the cognitive and the behavioural (see fig 2.1), all these interact with environmental influences and this section will examine the evidence for all three levels.

The case for biological causes being responsible for dyslexia may include genetic elements and neuro-anatomical, factors themselves that might have close links and interactions. Orton (1925) was one of the first to suggest that dyslexia had a genetic connection; he noticed that dyslexia appeared to run in families. A genetic explanation would certainly explain why there is a familial link. According to Davis (1997) however, being born with this genetic code does not necessarily mean that the child will be dyslexic, it only makes it possible for them to be dyslexic. According to Snowling (2000), the risk of a son being dyslexic if he had a dyslexic father is about 40%, and with a dyslexic mother, this reduces to 36%. Daughters appear to be at slightly less risk at about 20%, regardless of the paternal or maternal connections, (Gilger, Pennington and DeFries, 1991). The implication of the Gilger et al. (1991) study was that genetics are involved in the cause of dyslexia, but as Snowling (2000) points out these families also share similar environments as well, which could potentially be an even greater influence.

More extensive research by DeFries et al. (1987), reported in the journal *Nature*, examined a range of studies of dyslexic families with twins, using a multiple regression analysis to data collected from the sample. DeFries' studies examined the proportion of twins in which both twin pairs show indicators for dyslexia. De Fries et al. (1987) found that there was a higher incidence of both twins being dyslexic if they were monozygotic (identical) than there would be expected if they were dizygotic (fraternal). This gives greater weight to the suggestion that dyslexia is genetic in

origin, but is not definitive evidence for solely a genetic aetiology, for example, concordance rates tend to work well for diseases that a child either has or has not, but dyslexia is regarded as a condition that lies more on a continuum, and may therefore be more difficult to assess. Miles (1987) cites the work of Hallgren in Scandinavia who claimed that of 276 cases of dyslexia sampled in this research, 88% had reading problems in one or more relatives, and in the 12 pairs of monozygotic twins with dyslexia, 100% of these had difficulties with reading or writing.

Further evidence, which has been cited by Miles (1987) and Miles (1993), suggests that dyslexia is constitutional in origin as it is more common in boys than girls. According to Miles (1987) and Miles (1993), as many as four times more males than females show dyslexic tendencies. Such a high incidence does not exclude the possibility of social factors playing their part, but it would seem more likely that a genetic factor is involved.

Miles (1987) finally cites evidence that the mistakes made by dyslexic children are, in his opinion, similar to those made by aphasic patients or brain damaged adults; he suggests that it is more likely that in children this is a failure of development rather than an acquired condition.

What can be detected from the literature, according to Habib (2000), is that there is doubt about an adequate explanation of the aetiology of dyslexia in terms of one underlying condition. Fisher and DeFries (2002) describe a double-deficit hypothesis, one where dyslexia results from the combined effects of two independent deficits such as the processing of phonemes and the rapid naming of simple visual stimuli, such as letters, colours, objects or digits. A single deficit model does not take account of the full range of difficulties experienced by the dyslexic child. Difficulties in devising a clear definition of dyslexia also create difficulties for researchers into the aetiology of the condition, for example, some dyslexic children have phonological coding difficulties, for others it is manifested by a spelling problem. This raises questions about the comparability of studies, and whether they are they comparing like with like. One study may describe dyslexia as a single trait, but another may see it as a cluster of related subtypes with distinct aetiologies.

Another problem for a genetic model is that the nature and severity of the symptoms of dyslexia often vary at different stages of life; this is not what would be expected if

the condition were genetic and present from conception. Fisher and DeFries (2002), despite an extensive search of the genetic research, concluded that although concordance of linkage results are encouraging, the finding of a particular genetic pattern that causes dyslexia is still a long way off. They are however, confident that this research will succeed and ultimately will narrow down and isolate the implicated chromosomes 2, 3, 6, 15 and 18, and facilitate the identification of particular genes. Interestingly the genes so far identified are closely related to those already recognized for immune response characteristics.

“These associations support the general idea that fundamentally dyslexia results from some kind of adverse immunological influence on the development of magnocells in the nervous system”

(Stein and Talcott, 1999, p.63)

The successful localization of influencing genes will be aided by new technologies in the area, with the possibility of scanning all chromosomes in the genome, and searching for genes that influence complex traits. At the moment, this is an overwhelming task in terms of human time and computing resources. Targeted linkage studies by Fisher and DeFries (2002) have implicated two chromosomal regions thought to be involved in the syndrome, that is, regions 15q21 and 6p21. One gene FOXP2 has been isolated by Fisher et al. (1998) and seems to be important in facilitating the acquisition of speech and language for some individuals. This may or may not prove to be significant in the search for the dyslexic gene/s. In a more recent study by a group of Finnish researchers led by Taipale et al. (2003), claims have been made to have ‘discovered’ a ‘gene for dyslexia’, gene DXY1C1. This does therefore appear to be a candidate for dyslexic susceptibility, but requires far more research within the field as to the mechanisms of actuation. Currently (2005), a research team led by Professor J. Williams and M. O’Donovan from the School of medicine in Cardiff is working in this field and claim to have isolated gene KIAA0319. They suggest that this gene is significant to the origins of dyslexia after an analysis of 300 families from Wales. Whilst in Germany Schulte-Körne (2005), are investigating the gene DCDC2 located near the region of chromosome 6. Changes in this gene are frequently found in children who are identified as dyslexic, and appears to have a strong linkage with the processing of speech and writing.

There does however, appear to be a breakdown in correspondence between the 'phenotype' (how severely an individual is affected by dyslexia), and the 'genotype' (the genetic make up of that individual). This could be due to different genes influencing different families or to some children with a predisposing genotype not developing dyslexia due to environmental factors. It could also be due to children without the predisposing genotype developing dyslexia due to environmental factors, or the result of the simultaneous presence of predisposing genotypes involving several different genes, which interact and result in an increased risk of developing dyslexia.

2.2.1. Magnocellular

With the increased use of brain scanning (PET, NMR and CAT) and electroencephalograms in recent years it appears, according to Bradford (2003), that groups of cells have been detected which lie just on the surface of the brain of the non-dyslexic child, (these are the largest cells in the brain). These cells in the dyslexic child are found deep within the brain and are known as "ectopic cells" or brain warts. These clusters of cells are mainly found in the left and front of the brain...the areas most important for reading and writing. Another difference in the brains of dyslexic children is the magnocellular system that is the area of the brain dealing with moving images. According to Bradford (2003), this is smaller in the brains of dyslexic children than non-dyslexic children. With the use of an EEG (electroencephalograph) it has been possible to see increased brain activity on the right side of the brain when a child is beginning to read, (in an advanced reader, this increased activity is more noticeable on the left side of the brain). With this unusual variation in left and right activity, dyslexic children could become very tired by reading activities, as they are using the side of the brain not usually "wired" for language work.

2.2.2. Visual/perceptual Disturbances

Magnocells, according to Stein and Talcott (1999), are large neurons in the brain. To enable reading to be successful the visual magnocellular system needs to be working efficiently, any weaknesses can lead to visual confusion of letter order and poor visual memory for the written word. There may, according to Stein and Talcott (1999), also be an auditory equivalent essential for meeting the phonological demands of reading, leading to a confusion of letter sounds and weak phonology. The cerebellum, which

contains the magnocells, is also thought to contribute to the control of steady eye fixations and timing for visual events when reading. This area of the brain is also thought to be responsible for “inner speech”, necessary for sounding out words. The cerebellum therefore signals any visual motion that occurs if unintentional movements lead to images moving off the retinal slip (fovea). These signals would normally bring the eyes back on target. According to research by Stein (2001), many children who are dyslexic have poor binocular fixation and visual perceptual instability. This causes the letters on a page to appear to move. Thus good magnocellular function is essential for “high motion sensitivity” and “stable binocular fixation”. According to Stein (2001), dyslexia has a fundamental sensory-motor cause.

“The condition is a wide ranging, genetically based, neurodevelopmental syndrome” (Stein and Talcott, 1999, p.59)

To enable reading to take place in English the eye movements across the page will usually be in a left to right direction. Studies by Zangwill and Blakemore (1972), found that in children with reading disabilities, the eyes moved more slowly across the page, and they were more prone to make regressions. They referred to this as “an irresponsible tendency to move the eyes in a right to left direction”. In 1993 Evans concluded that less expert readers, and those who have difficulty with reading, increased the number of fixations to inspect the written word, and this resulted in a very slow read and many more regressions. The key issue here is one of cause and effect, that is, are atypical eye movements the result of poor reading skills or the underlying cause of poor reading. In 1981 Pavlidis contributed to research in the field by concluding that dyslexic readers showed abnormal eye movements and this could be used to diagnose dyslexia in very young children. His research has not since been replicated in this country, and has been largely discredited by Miles and Miles (1990). Despite this visual causes of dyslexia have been the subject of continued research particularly with reference to the dominance of one eye over another, and a lack of adequate control of synchronized movement of two eyes together (Ott, 1997). Stein and Fowler (1985) showed that 68% of dyslexic children had an unstable reference eye. This research was also criticized in 1989 by Bishop, who found no evidence to suggest that monocular occlusion in children with an unfixed reference eye resulted in improved reading scores.

Interest in perceptual disturbances as a cause for dyslexia is still high; this was exemplified in 1983 by Helen Irlen when she presented a paper to the 91st Annual Convention of American Psychological Association in California. Irlen claimed to have discovered a new syndrome, Scotopic Sensitivity Syndrome or Irlene's Syndrome. This gave features of photophobia and an inability to see groups of words or letters at the same time.

“Scotopic Sensitivity Syndrome is not, of itself, a learning difficulty in the accepted sense. Rather, it is a complex and variable condition often found to exist as a component of dyslexia, dyscalculia, attention deficit disorder and many other learning problems.

(Irlen; 1991: p30)

Irlen (1991) claimed that children with Scotopic Sensitivity Syndrome also had difficulties with concentration. According to Irlen (1991), between 50-75% of learning disabled people suffer from this syndrome. Irlen (1991) prescribed coloured/tinted lenses or overlays to treat the problem. Subjective reports have shown that some people find coloured lenses very useful, but according to Ott (1997) conclusive proof from “vigorous scientific studies”, that tinted lenses can help poor reading performance or visual disturbances, is not available.

2.2.3. Environmental

In addition to endogenous causes of dyslexia there are potentially a number of exogenous sources, for example, teaching methods employed for reading, family background, sibling rivalry, etc. Hinshelwood (1917) used the term congenital dyslexia to mean that the reading disability stems from a neurological point of view, but this only implies that it is present at birth, but does not indicate whether this is a result of a genetic weakness, an injury, a delay in maturation, a temporary or permanent arrest in growth, a dysfunction, an inherited constitution or a pre-natal trauma. For almost a century since Hinshelwood (1917), became aware of the familial link between dyslexics and close relatives. The problem is to decide whether dyslexia is inherited or because the dyslexic family members share the same environment it is therefore environmentally related, or a complex combination of the two.

One of the most important environmental influences upon a child's ability to read

efficiently, according to Doyle (1996), is reading experience. He states that reading will improve the more the child is exposed to the printed word. This applies even to children who have severe phonological deficits. Hence, genetic factors may inhibit the speed of reading development, but environmental factors such as skills of teaching and greater exposure may influence the outcome, for children with severe dyslexia and poor phonological coding skills. These children can learn to read, subject to the appropriate choice of the teaching skills employed. Doyle (1996) describes this interaction between genetic and environmental factors in the following diagram:

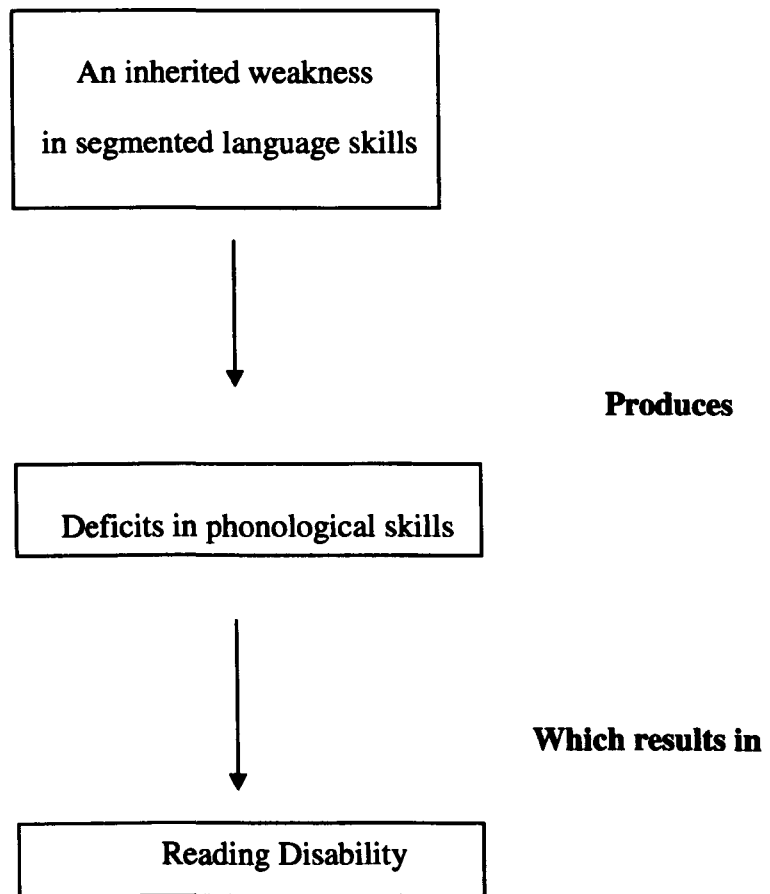


Fig 2.2.

(Doyle, 1996, p.173)

If poor teaching were the most significant factor in the development of dyslexia one would expect dyslexia to occur among several of the children taught in the same manner, and this plainly does not happen. If parental pressure were the main factor it would not explain why different children with different parents, exerting different

pressures, would always respond by failing in the same specific areas (Doyle 1996).

2.2.4. Biological

A biological basis for the phenomenon of dyslexia may be related to fatty acid metabolism (Stordy, 1997). There are two different fatty acid series, Omega 6 and Omega 3. These fatty acids must, according to Mercola (2001), be present in a healthy diet, and are as important as any vitamin or mineral to the health of the child. More recent research by Hooper et al., (2006) at the University of East Anglia does cast some doubt upon the overall health benefits of fish oils and fatty acids. According to Stordy (1997), the brain is 60% lipid and half of this lipid is long chain polyunsaturated fatty acids. They are the building blocks in and around nerve cells that control the efficiency of transmission of signals from one nerve cell to another. Adequate supplies of long chain unsaturated fatty acids in early life are essential for brain and visual development, and are essentially present in breast milk, (Portwood, 2004). In a randomised, double blind placebo-controlled trial, over a six month period, Portwood (2004) reports significant improvements in children's behaviour and learning skills, when fatty acids present in fish oils were included in the diets of school children in Durham. This research is still at a preliminary stage. According to Portwood (2004), there is considerable anecdotal evidence for the positive consequences of the use of fish oils in the diet of young children with reading and learning difficulties. The lack of these essential fatty acids implies a neurodevelopmental disorder, which in turn implies a causal link between biology and behaviour. Diets poor in polyunsaturated fatty acids may, according to Stein and Talcott (1999), further impair the development of the magnocellular neurons. The control of human behaviour is, according to Goldberg and Schiffman (1972), a genetic function, but reading is a behavioral function, so making the case for reading disability to be solely or even mainly genetic is difficult. The evidence so far is for the tendency for dyslexia to be familial, with a higher prevalence of dyslexia in monozygotic twins than in dizygotic twins; that dyslexia persists throughout life despite teaching, environment, the presence of biochemicals or chromosomal aberrations. In 1964 Child discussed the genetics of reading disabilities and concluded that chromosomal abnormalities were not present in the cases he reviewed. He claimed that the reading difficulties that the children experienced were to be found in most children as they started to read. In a child with dyslexia, however, they do not

disappear. He therefore claimed that it was unfair to label as a “genetic” handicap one for which most children learn to compensate for.

A link that appears to be of significance when considering functioning within a learning situation for children with dyslexia is the high incidence of children with a history of ear infections and Otitis Media (OM). Bradford (2003) researched the condition of “glue ear” or conductive hearing loss. This condition may go unrecognised by parents and teachers for many years. The early learning of sounds and words is, according to Bradford (2003), fundamental to the child being able to read. It seems sensible to suggest that a child who finds difficulty hearing sounds may have a delayed phonemic awareness, which could cause resulting life long difficulties, such as dyslexia. Peer (2005) showed an extraordinarily high incidence of severe Otitis Media (70%) in dyslexic multilingual children. If this same child also has inherited genes which predispose him/her to language difficulties, this could be when severe dyslexia becomes apparent.

According to Frith (1999, 1997), there are three levels of theory for the aetiology of dyslexia (fig 2.1), the biological, the cognitive and the behavioral. It is quite possible for all three to be correct at different levels of explanation. At the behavioural level, there will be problems with reading and rhyming deficits, at the cognitive, problems in phonological awareness, automatization and slow processing speed and at the biological, difficulties in other language and magnocellular pathways within the cerebellum. These are all facets of an underlying phenomenon.

Despite the range of research over the last thirty years, it is still apparent that there is no one underlying cause that can be attributed to dyslexia, either biological, behavioural or microphysical. It would appear however, that brain activity in dyslexic individuals is different from those who do not have the condition (Mortimore, 2003). Thus it may eventually be possible to identify the differing patterns of brain function and the differing genetic patterns of an individual dyslexic child. Klansen (1972) on the other hand was of the belief that it would never be possible to trace dyslexia back to a single aetiological factor owing to the complexity of the reading process. He described dyslexia as a ‘polyetiological syndrome’.

“There is now much evidence from animal studies that the brain is far more malleable than used to be thought, particularly in youth....Therefore if we can

discover how dyslexics' mild problems arise, and learn to recognise them early enough, there is every hope that we will be able to obviate them, especially by encouraging development of the talents whose benefits have preserved this interesting neuronal magnocellular abnormality in the human genome.” (Stein and Talcott, 1999, p. 60)

2.3. Prevalence

This section will investigate the frequency with which dyslexia is found in children and adults. It will be difficult to address the issue of prevalence as long as the definition of dyslexia remains unclear and controversial. Whilst different researchers base their research upon different definitions, operational or working definitions, no definitive figures or percentages can be established. Much will also depend upon the skill of the “tester” and their knowledge and personal “prejudice”.

“The absence of consistent selection criteria makes the matter very much one of guesswork, moreover, it is for these reasons that no satisfactory figures are available for the incidence of dyslexia.”

(Miles and Miles, 1990, p. 14)

A further difficulty, according to Miles (2004), with assessing prevalence of genuinely dyslexic children is the practical aspect of the time taken to undertake testing on a large scale.

The range of frequencies quoted within the research to date is wide and various. According to research by Silver and Hagin (1960), this ranges from 2% to 25% in western cultures. Klasen (1972) also estimates an incidence of between 2% and 25%. Further back in time, Bender (1957) puts the figure at between 5% and 15%. In 1976, Tarnopol and Tarnopol, reviewed the prevalence of dyslexia across the world and suggested a figure of 8% as a median figure. According to Critchley (1981), at least 10% of the British school population have some difficulties with reading and writing, but only a proportion of these will be dyslexic. Snowling (2000) suggests that the tests used to assess dyslexia will affect the incidence figures, and that the better

psychometric tests used by Rogers (1983) consequently gave a lower prevalence of 2.29%. Miles (2004) estimates a range nearer to 3%-6%. However, when there is such a variety of diagnostic tests, methods and criteria used within the research, it is difficult to compare like with like.

The problem is not only what definition to use but also what “cut-off” point there will be to the criteria used. Thomson (1990) suggests that any child whose reading age is two years behind his chronological age should be considered to have a severe reading difficulty. This, of course, ignores the difference between specific and general learning difficulties. Gaddes (1976) took a different view, and asserts that a two-year difference means different things at different ages. His study used reading tests that suggest that at six years of age, 1% of the population are two years delayed in their reading ability and at seven years of age, there are 2% delayed readers. This percentage, he claims, increases proportionately so that at nineteen years of age 25% of the population has a reading age that is two years behind their chronological age. This is difficult to accept, as a child of six years of age who is two years delayed is a non-reader, and should not be able to contribute to the test at all. Whereas at fifteen years of age a reading age of thirteen years, means a reasonably competent reader, who can read most of the material required for his/her secondary education.

Yule et al. (1974) examined the prevalence of dyslexia, using a cut off point that assumes a normal distribution of discrepancy scores, which described the difference between expected and actual levels of attainment of 2.8% of children scoring more than two standard errors of measurement below their attainment score. Using these criteria, they reported a prevalence figure ranging from 3.1% of ten year olds on the Isle of Wight, to 6.3% of ten year olds in London, based on a discrepancy model between IQ and reading accuracy. They claimed that these figures showed clearly that environmental factors were important to the incidence of dyslexia as they were higher in the inner city population.

More recently than Yule et al (1974) was Shaywitz et al (1992), who used a “cut-off” point of 1.5 standard errors of measurement below expectation and reported prevalence ranges of 5.6%-7%. They also reported a variance in prevalence rates from year to year in American schools. Only 28% of children defined as dyslexia at

the end of the first grade were given the same diagnosis at the end of the third grade and only 47% of these showed dyslexic tendencies by the end of the fifth grade. These figures, according to Snowling (2000), bring into question whether a discrepancy definition of dyslexia is over inclusive, perhaps an over focus upon reading, as the only symptom of dyslexia, is not therefore helpful.

Research by Owen et al. (1971) showed a sharp increase in numbers of children referred for specific learning difficulties between the ages of eight and eleven years of age. Their data suggested that of the 2% of children referred for remedial education for the condition, 4% were six year olds, 10% were seven year olds, 57% were eight to eleven year olds and 18% were eleven to sixteen year olds. Reid (1994) suggests a figure of 15% of children who remain undiagnosed until the eleven to sixteen age range. More recent research by Williams (1999) carried out at Pentonville Prison and Feltham Young Offenders Institution indicates that a significant number of undiagnosed dyslexics are within the adult and young people's prison population. The British Dyslexia Association, in 2004, also found a link between dyslexia and offending, with a much higher incidence amongst offenders, usually between 30-50% of the population as a whole. This might suggest that there could be an underestimate of the condition at the younger and older age ranges, perhaps because of some aspect of the referral system.

2.3.1. Gender Differences

There would, according to Turner (1997), appear to be genuine imbalances between the ratios of males to females with dyslexia. Turner's (1997) case study estimates 4.6 males to 1 female. That dyslexia is more common in males than females is also agreed by Critchley (1981) and Naidoo (1972) who both estimate the ratio of 5:1 and Zangwill (1981) who puts the ratio at 3 or 4 boys to one girl. Money and Alexandra (1966) suggests a much lower ratio of 2:1. In a review of the literature, Schiffman (1972) found a frequency rate varying from 3:1 to 10:1 in favour of greater male incidence.

That there is a difference according to Turner (1997) is then clear, the reasons why, however, are more debateable, Turner (1997) suggests that hormonal or intrauterine factors may be involved, or perhaps a greater biological vulnerability (Santrock,

2001). Thomson (1990) says rather controversially, that despite our present laws and views on anti-discriminatory practice, perhaps there still is a vestige of feeling that it is more important for boys to be able to read than girls, (girls can after all get married and be dependent), as a consequence referrals are more common amongst males than females. According to the Schools in Wales General Statistics for 2004, (www.wales.gov.uk), there are significant differences between the numbers of males and females statemented in schools across Wales, which can be seen in figure 2.3.

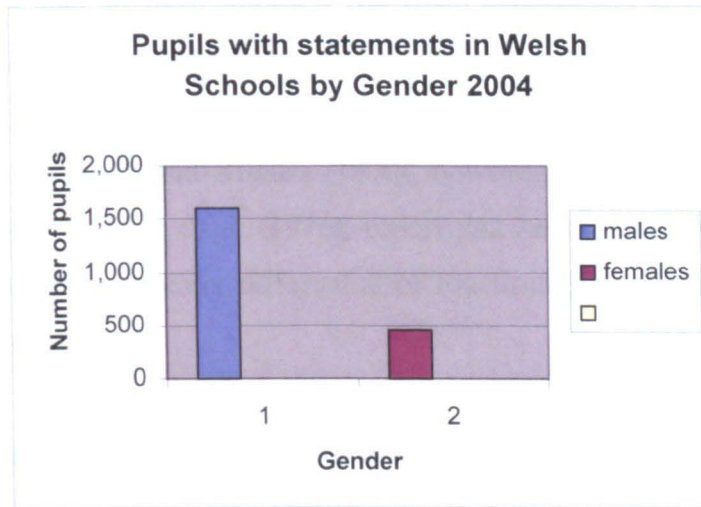


Figure 2.3.

Other social factors, which might contribute to this imbalance, are that boys are more interested in pleasing classmates than teachers, therefore they read less (Moseley, 1972). Kellmer-Pringle et al. (1966) also showed that reading schemes do not engage boys in the same way as girls, tending to be more “home-orientated”, whereas male interests, they say, are more global. These factors may result in a higher referral rate from teachers for treatment because of their disruptive or even hyperactive behaviour (Santrock, 2001).

Maturational and developmental delay of cognitive skills may also be the cause of the differential male/female ratios. Many dyslexic children have delayed language skills and males show a greater incidence of speech delay than females (Davie et al., 1972). Girls generally develop and mature much earlier than boys (Santrock, 2001; Bee, 2002) so there could be an interrelationship between verbal and visuo-spatial skills between the sexes. Girls could pass some kind of verbal skills threshold, earlier than boys, at the time that reading is being taught (Kellmer-Pringle et al., 1966). Maccoby and Jacklin’s (1974) research showed that males tended to be better at visuo-spatial

functioning than girls. In that case, they suggest, it is possible that there is an interrelationship between the left hemisphere of the brain, which specialises in language, and the right hemisphere of the brain that specialises in the visuo-spatial function, and affects the incidence of dyslexia.

The suggestion that the left hemisphere of the brain, and therefore language processing, is in some way developmentally delayed or dysfunctional and thereby affects a reading threshold, is taken up by Leisman and Ashkenazi (1980). Their research suggests that in most children the right hemisphere of the brain is subservient to the left hemisphere of the brain, whereas in dyslexic children the two hemispheres act more independently. Bakker et al. (1973), found this to be greater in females than males, Knox and Kimura (1970), however, found this to be similar in males and females. Bakker et al. (1976), report that an age and sex interaction for older males could give a greater differential of functioning and hence the perceived differences of gender ratio.

There are suggestions in research by Shaywitz et al. (1990) that this differential between the genders is a false one, and that closer examination of the studies so far conducted do not hold out the differences between girls and boys. Shaywitz et al. (1990) acknowledged two types of identification for dyslexia, that is research based and school based. Their suggestion was that only in the school based identification was there a gender bias. Miles, Haslum and Wheeler (1998) however suggested that this conclusion could be explained by a difference of definition of dyslexia, and that when children were assessed for Specific Developmental Dyslexia (a condition based on multiple criteria) as opposed to Specific Reading Retardation (expected reading levels compared with intelligence) as in Shaywitz et al. 1990, then the traditional pattern of gender bias remains apparent.

The Schools in Wales General Statistics (www.wales.gov.uk) show that in Wales pupils with statements for specific learning difficulties in 2001-02 were 1899 males compared with 510 females, a ratio of 3.72:1 males to females.

2.3.2. Languages

Dyslexia appears to manifest itself differently in different languages. In Klasen's (1972) review of the international perspective in English speaking cultures the reading/spelling weakness is slightly more noticeable and prevalent than in non-English speaking cultures; this is possibly, because the rules of English are so irregular and complex. Klasen (1972) cites Schomburg who claims that in England, 1 out of 4 students, at the age of fifteen cannot read fluently and that 21% of twelve year olds are "backward readers", with a reading age of seven years or less.

In German speaking nations Klasen (1972), estimates that about 5% of the school population are dyslexic he also cites Kirchoff (1964) who puts that figure more widely at 2%-20%. Haltgren's (1950) research in Sweden, according to Klasen (1972), gave a figure of 2% and Kretschmer (1962), also cited in Klasen (1972), gave incidents in Switzerland at between 4% and 18%. Kirchoff (1962), cited by Klasen (1972), estimated that Copenhagen had 3.5% of the school population as dyslexic. In the USA, Satz et al. (1978) estimates that 15% of children have SpLD, (that is approximately eight million children).

Country	Author	Incidence
Belgium	Grammaticos	5%
Britain	Matty	4%
Czech Republic	Matějcek	2-3%
Finland	Lyytinen	10%
Greece	Mazi Everatt	5%
Italy	Smythe	1.3%-5%
Japan	Yamanda	6%
Nigeria	Olusanya	11%
Norway	Bogetvedt	3%
Poland	Bogdanowicz	4%
Russia	Boldyreva & Inshekova	10%
Singapore	Daruwalla	3.3%
Slovakia	Mesarosova	1%-2%
USA	Young	8.5%

Figure 2.4. Incidence of Dyslexia across Countries (Salter and Smythe 1997)

The Japanese system of writing is unique with three types of script. By the age of six or seven Japanese children are expected to have mastered two of them. Yamanda and Banks, cited in Miles (1993), discuss whether Japanese children can be described as dyslexic and found that there are children in Japan that can be tested to show dyslexic tendencies, but that there was not a higher proportion of boys reported than females.

2.3.3. Bi-lingualism

There appears to be no clear picture of the prevalence of dyslexia among bi-lingual children, according to Hunter-Carsch (2001). It is usually assumed in the secondary schools in England and Wales that monolingual children who are already showing difficulties in reading and writing one language will have significant difficulty when learning more than one language.

Degrees of phonological regularity in some languages, such as Welsh, ensure that the same alphabetic letter stands for the same sound, (this is not always the case in English). Miles (2004) suggests that in phonetically regular languages reading is unlikely to be too serious a problem for the dyslexic child. Geller (2001) reports that the prevalence of dyslexia varies with the ratio of sounds to written letters, thus in Italy where the language has twenty sounds and thirty three letter combinations the incidence of dyslexia is low, but in English speaking countries where there are at least forty sounds to one thousand, one hundred and twenty letter combinations the incidence of dyslexia is relatively high. Welsh, like Italian is a totally phonetic language, every letter combination is sounded and always sounded in a similar way.

According to the Schools in Wales General Statistics 2004 (www.wales.gov.uk), which are the most up to date available at this time, the number of children statemented across Wales for specific learning difficulties in 2003/4 were 485 in primary schools and 1,465 in secondary schools. In the under fives group this figure is 14 children, 470 in the 5-10 years age group, 1,462 in the 11-15 year age group and 114 in the over 16s age group (see Figure 2.5.). No break down of figures is available between the Welsh and the English medium schools.

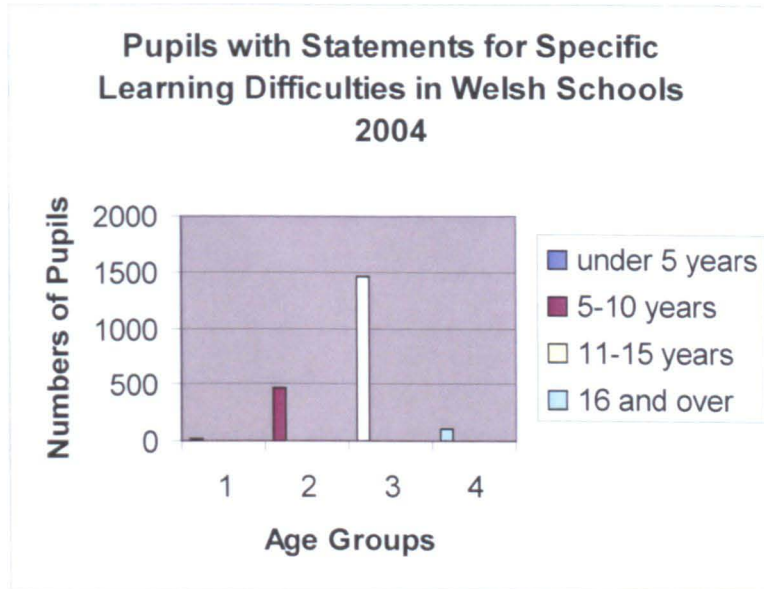


Figure 2.5.

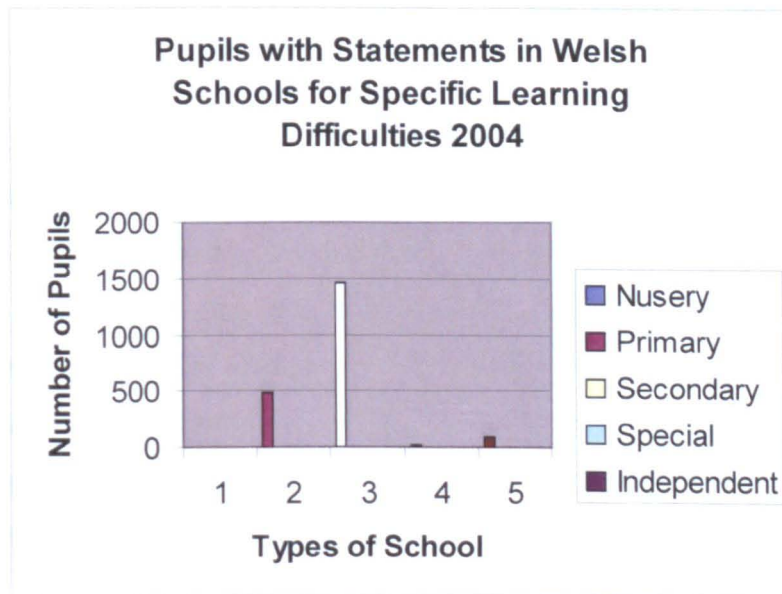


Figure 2.6.

The number of special educational needs cases taken to appeal in Wales in 2004-2005 is recorded in the Annual Report of the Special Educational Needs Tribunal for Wales issued in October 2005. In this report, it can be seen that the number of appeals for specific learning difficulties and autistic spectrum disorders account for more than half of the appeals across Wales (fig 2.7.).

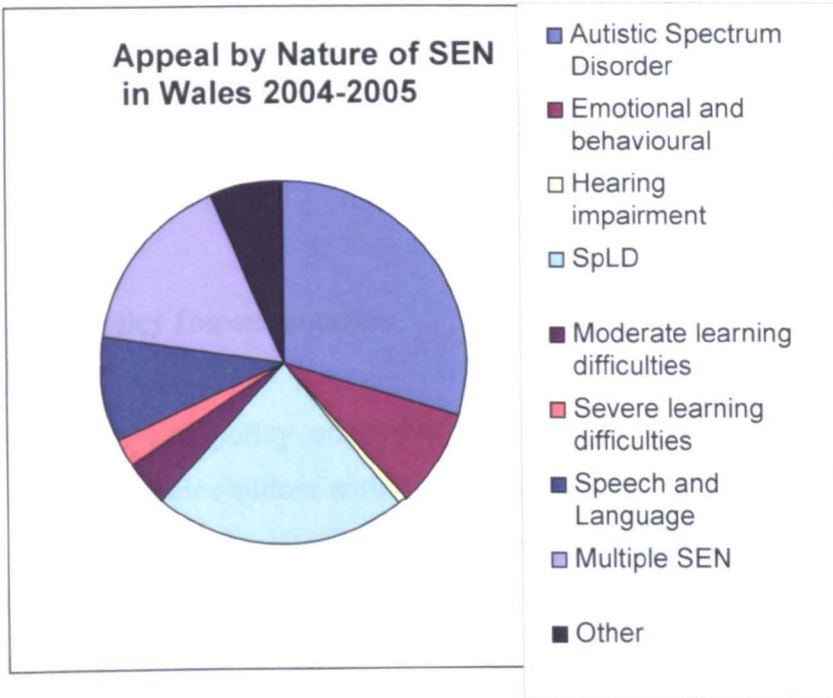


Figure 2.7.

The British Dyslexia Association (BDA, 2005) estimates that approximately 10% of the children in the United Kingdom are on the dyslexia spectrum and 4% are severely dyslexic. Despite this the Welsh Assembly Government states in the Special Educational Needs Code of Practice for Wales (2002) that nationally only 2% of children have special needs, but it reminds us of the importance of early identification and the need for appropriate help to be put into place for the child as quickly as possible. According to Pumfrey and Reason (1991), dyslexia can be classed as Severe Dyslexia, Moderate Dyslexia and Mild Dyslexia.

“the middle group might not even be diagnosed as dyslexia and their dyslexia conceals the intelligence, but undiagnosed dyslexia can be a constant source of worry and strain”

(Ott, 1997, p. 13)

This wide spectrum means that prevalence figures are only “guestimates”. This results in statistics that are unreliable and fundamentally flawed. To use such

statistics in further research into dyslexia could bring into question the reliability of all the future research in the field.

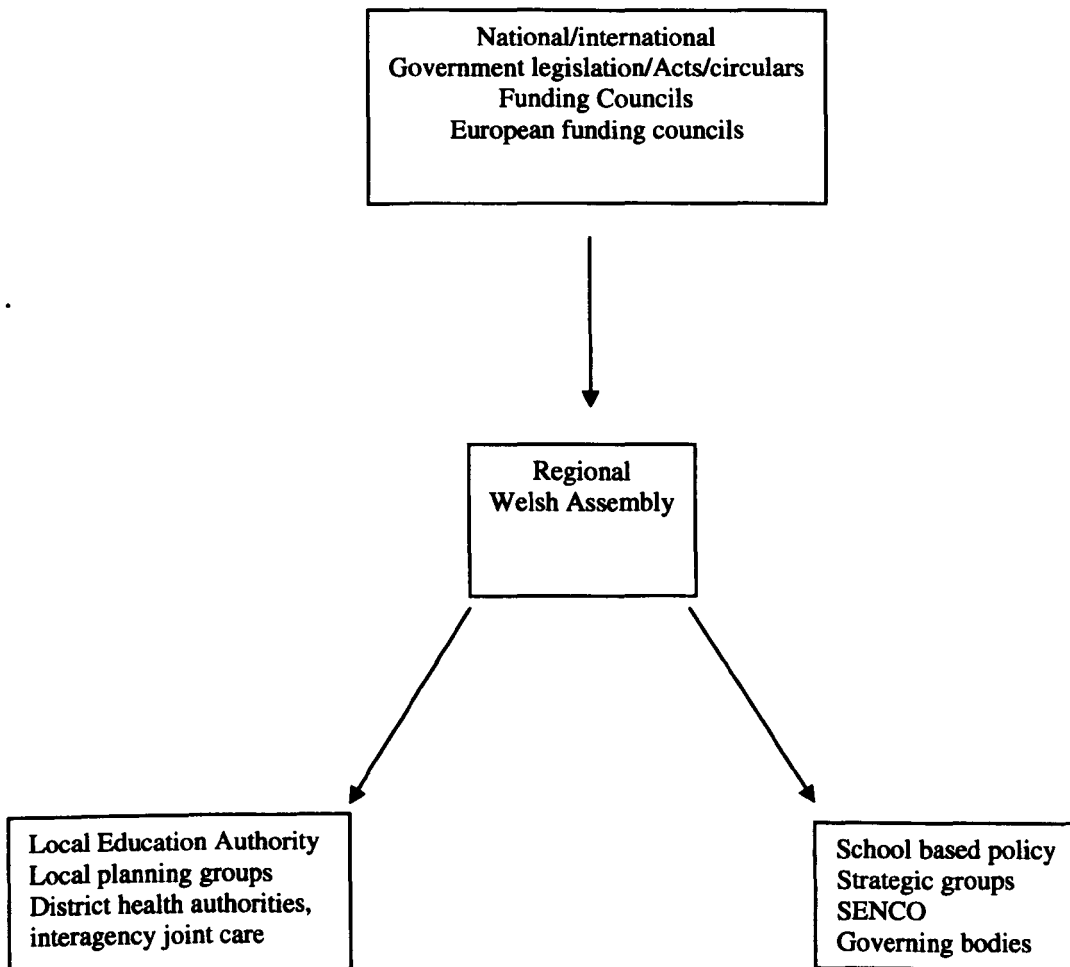
“If you can’t measure it, you can’t manage it”

(Ott; 1997, p. 12)

2.4. Policy Implementation

Legislation and policy on dyslexia should provide protection and reassurance to parents and their children with this condition. This section will examine the advances in this area, the government supported working party investigation into dyslexia and the subsequent guidance and legislation. Policy development is an area where there has been constant movement and progress over the years since dyslexia and specific learning difficulties have been more widely accepted conditions. Policy has moved from a situation where dyslexia was not a recognised condition to one where the Special Educational Needs Code of Practice for Wales (2002) makes it incumbent upon a school to identify and support the child with dyslexic tendencies. According to Fawcett (2002), at the time of her writing, the situation in the UK for the child with dyslexia is one of the best in the world, well in advance of the USA. In this area, Fawcett (2002) claims that the UK government is outstanding, with large amounts of funding dedicated to the implementation of their policies.

Policies validate what is happening on the ground level, they help to secure resources and they demonstrate the support from the most senior managers. This section will show that a hierarchy of policies is made at all levels from national through to regional to local levels. Government legislation and circulars also have a major impact upon policy formulation.



Hierarchy of policy making in Wales Figure 2.8.

According to Macintyre and Deponio (2003), in the past children with dyslexia and dyslexic tendencies were simply urged to cope in the best way that they could. This frequently resulted in children believing that they were stupid and inadequate. Teachers concerned themselves with what the children could not do and failed to recognise the considerable talents that they did have. Children with the most severe difficulties were educated in special schools, where it was thought that their difficulties were understood and managed better with more favourable teacher/pupil ratio, but according to Maintyre and Deponio (2003), these children were seen as 'different', and they missed out on the opportunities for social interaction and could not benefit from sharing lessons with their peers. Macintyre and Deponio (2003) believe that the very policies that were put in place to help them were in fact compounding their problems.

There have been major changes to the policy of schools concerning dyslexia since the 1993 Education Act, this in turn led to the UK government producing the Special Needs Code of Practice in 1994, which was revised in 2001 and adapted for the schools in Wales in 2002.

In 1995, the Disability Discrimination Act was passed and amended in 2001 to its present title the Special Education and Disability Act. This Act states that a person with a disability is:-

“One who has physical or mental impairment, which has a substantial and long term adverse effect on his or her ability to carry out normal day to day activities.”

(SENDA, 2001, p. 4)

This Act suggests that mental impairment includes learning difficulties that effect memory, concentration and the ability to learn and understand. This definition is very broad, but clearly dyslexia falls within the category of a disability for the purposes of the Act. Individuals do not have to establish that they are dyslexic, but merely show that their condition constitutes a disability that has significant adverse day-to-day effects. This now makes it illegal to discriminate against learners either by treating them less favourably, or by not adjusting the environment or the curriculum to ensure that they can access the curriculum. Local Education Authorities are now *required* to prepare an accessibility strategy in writing and to review it regularly.

According to a survey in 1991 by Pumfrey and Reason, only 42% of the Local Education Authorities in England and Wales had formulated a policy on specific learning difficulties. This was less than a similar survey that they conducted in 1983 when 58.2% of the forty-two authorities surveyed had a policy. Of the policies surveyed, Pumfrey and Reason (1991) found that the terms specific learning difficulties and dyslexia were used to mean the same thing. The survey in 1991 showed that 89.9% of the LEAs that responded, did provide statements for children with specific learning difficulties. However, there were considerable differences in the numbers of statements issued between the different LEAs. Less than 23% of the responding LEAs in England and Wales used any sort of screening procedures

sensitive to SpLD, but they encouraged schools to adopt “whole school” policies to ensure that each school had an efficient and effective method of teaching, identification and assessment strategy. Schools were then expected to make these policies and practices clear and transparent.

Research conducted by the British Psychological Society Division of Educational and Child Psychology (1999) showed that in 40% of the local education authorities, in England and Wales, approximately 75% have locally produced policy documents concerning the assessment of dyslexia and specific learning difficulties. This is despite the requirement of the Special Educational Needs Regulations (2000), which requires every Local Education Authority to publish policies on special educational needs, and to regularly monitor and update to ensure that all governing bodies draw up a policy document that is reported upon annually to parents, to ensure that it remains effective. The Special Needs Code of Practice in Wales (2002) goes further to suggest that all teaching and non-teaching staff should be involved in the development of the school SEN policy with the special educational needs co-ordinator (SENCO) responsible for the day to day operation of the policy. A summary of that policy must be included in part of the school prospectus (Welsh Office Circular 49/94). This document prescribes the issues that schools must address in their policies, but not the content. Schools in Wales are free to develop their own policies, as suit their individual circumstances, but must have regard to the Special Educational Code of Practice in Wales.

Research conducted by Reid, Davidson-Petch and Deponio (2004) in Scotland on the policy and practice for dyslexia in Scottish schools, asked authorities to indicate examples of good practice. Twenty-four local authorities responded positively, indicating that they had policies in place. The list of good practice was extensive including dyslexia advisors in all schools, educational psychologist networks for dyslexia, support packs and a range of training courses and software. This research by Reid et al. (2004) also found that most of the Scottish authorities catered for dyslexia within their policy framework, either through a dedicated policy on dyslexia, or through a more generic policy on learning. Most of those policies were then translated into guidelines and good practice guides.

In 1998, “The National Literacy Strategy” was launched in England in an attempt to raise standards of literacy in pupils within key stages one and two, and developed further in 2003 with the National Literacy and Numeracy Strategies. Under this strategy, all pupils, in England, receive one hour a day of teaching specifically related to literacy, this includes whole class and group teaching. This is then continued in key stage three, with extra support for pupils who are finding literacy difficult with “catch-up”, “booster-sessions” and special support materials.

Project Llwyddiant (BDA Cymru, 2005) is a collaborative project between the British Dyslexia Association, the Discovery Trust and other partners in Wales. This project is funded in the Objective One areas in Wales by the European Social Fund and is looking at ways of engaging 2000 disaffected young people between the ages of 13-19 with specific learning difficulties, to enhance their educational experiences. This intends to help the young beneficiaries of the project to achieve good citizenship, learning and ultimately increase their chances of employability, by supporting the existing systems of education, training and guidance in a partnership approach.

2.4.1. Integration to Inclusion

In 1978, the Warnock Report described the process of integration as “locational, social and functional”. The term integration referred to the sharing of the same site by special and mainstream school provision, or sharing of out of class activities or joint participation in educational programmes. Florian (1998) describes this as a process of ‘normalisation’ and says that it bears the assumption that children with special needs are not normal, and that it is acceptable to view them in this way. More recently, Baroness Warnock has refuted her original ideas on inclusion stating in a BBC News programme 10th June 2005 and reported by Mike Baker, that inclusion had gone “too far”. Lady Warnock now calls for a fundamental rethinking of the policy of inclusion and she herself describes the policy as a “disastrous legacy”.

In 1996, The International League of Societies for Persons with Mental Handicap (ILSMH) adopted the term ‘Inclusion International’, and acknowledged that exclusion was perhaps no longer acceptable; thereby valuing each person for who they are, as a needed member of society.

“Inclusion refers to the opportunity for persons with a disability to participate fully in all of the educational, employment, consumer, recreational, community and domestic activities that typify everyday society”

(Inclusion International, 1996, p. 4)

The Warnock Report (1978) assumed that approximately 20% of school aged children in the UK would have special needs requiring some additional help in their school years, with some 2% of these being excluded from mainstream schooling and receiving their education in special schools. According to Florian, Rose and Tilston (1998), there has been a growing sense of injustice about this segregated group, and the numbers of segregated children has dropped by either integrating children into main stream schools, by providing them with special needs provision for part of the day, with part of the day spent in their mainstream classes, or by improving the capacity of the mainstream schools to accommodate diversity amongst the pupils. Florian et al. (1998), sees this option as a growing trend, in schools across the world there is increasing rhetoric about human rights and the immorality of a segregated approach. The concept of inclusion is even embedded within the United Nations Convention on the Rights of the Child (1989), The United Nations Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993) and the UNESCO Report on the Education of Children with Disabilities (1997).

Inclusion involves the redesigning of the very process of learning, assessment and organisation, so as to fit the objectives and learning styles of the children, it has now become central to government policy, for example, the policy document, ‘Excellence in Schools’ (1997), states that:-

“Where children do have special educational needs there are strong educational, social and moral grounds for their education in mainstream schools”.

(DfEE, 1997a, p.34)

The Green Paper, 'Excellence for All Children' (DfEE, 1997b), endorses the 1994 UNESCO Salamanca World Statement on Special Educational Needs, which also recommends the inclusion of children with special educational needs into mainstream schools:-

"We want to see more pupils with SEN included within mainstream primary and secondary schools. We support the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Salamanca World Statement on Special Needs Education 1994. This calls on governments to adopt the principle of inclusive education, enrolling all children in regular schools, unless there are compelling reasons for doing otherwise. This implies the progressive extension of the capacity of mainstream schools to provide for children with a wide range of needs."

(DfEE, 1997, chap. 4).

All these documents, according to Florian et al. (1998), endorse the philosophy that it is the right of all children to have the same educational opportunities, including access to mainstream schools and curriculum.

In the past, children with special needs have been seen as lacking in some way. This, according to Florian et al. (1998), is a deficit model of education. This new concept of inclusion tries to recognise the value of every individual, and the positive contribution and enrichment that they can make to society; although full inclusion says Florian et al. (1998), will inevitably require changes to the curriculum and its delivery. This may require a systematic review of the issues of school change and multi-disciplinary teamwork, as well as issues involving behaviour and learning styles. Barton (2003) ascertains that special schools only exist because mainstream schools are not providing for the full range of abilities and disabilities.

The Special Needs Code of Practice (2001) was published with a guidance document and a circular on Inclusive Schools. This is the first time that dyslexia is mentioned to any substantial degree in any government produced document. Paragraph 7.52 of the Code of Practice (2001), acknowledges that each child is unique and that the schooling needs to fit the child, rather than the other way around. This is a code of

practice and therefore it is flexible, and schools are free to interpret this document in their own individual way, as long as they have 'regard' to its content, unlike assessment and statementing, which are regulated as a matter of law.

The Code of Practice (2001) emphasises the need for inclusion of all children with difficulties in a mainstream classroom. This concept of inclusion is reiterated in the National Curriculum Statement (1995), which urges teachers to "*respond to pupil's diverse learning needs*" Section B of this statement requires teachers to:-

- *"Create effective learning environments;*
- *Secure motivation and concentration;*
- *Provide equality of opportunity;*
- *Set targets for learning."*

Section C of the same statement is titled "*Overcoming Potential Barriers to Learning and Assessment for Individuals and Groups of Pupils*". This requires teachers and head teachers to review the whole school provision and planning to ensure that opportunity is made to enable all pupils to access the curriculum effectively. Despite this, there is still immense variation between local authorities, e.g. Wrexham Borough Council in their SEN policy document (2004) offer support for children with SpLD in two teaching centres. This, they state, enables them to integrate with children who have similar learning difficulties, whereas, Caerphilly Borough Council state in their latest policy document that the LEA is:

"Committed to the principle of educating children within Caerphilly's schools wherever possible."

(Caerphilly Borough Council, 2002, p.16)

Poole (2003), however contends that despite inclusion being an essential philosophy of Welsh educational policy, and placed at the forefront of the Special Educational Needs Code of Practice for Wales (2002), that the curriculum offered to the children and executed within the schools in Wales, has not significantly altered since the introduction of the Code of Practice to accommodate this philosophy. Poole (2003) considers that unless something happens to change educational practice to suit the

needs of all the children, then specialist schools, catering specifically for children with dyslexia, will become an “*attractive option*” for many of the parents of children with dyslexia.

A major policy review of special educational needs provision by the Welsh Assembly Government was discussed at the Assembly in Cardiff and reported by Porter in the Times Educational Supplement on December 9th 2005. The current statementing process was criticized for being too costly, bureaucratic and unfair. The review suggested that statements should be dropped in favour of a “record of entitlement” for children with significant difficulties. The suggestion was that fewer statements could result in financial savings, which could be redirected to provide whole school support.

2.4.2. Dyslexia Friendly Schools Initiative.

The Dyslexia Friendly Schools initiative was ‘born’ in 2000, according to Reid and Fawcett (2004) and established in North Wales at Hawarden High School by Ian McKay, at the request of Flintshire Local Education Authority. Neil Mackay is also a consultant to the British Dyslexia Association. The success of this was later taken up by, among others, Swansea Local Education Authority, which went on to develop this strategy across all schools in that area. Funding from the Welsh Dyslexia Project allowed this to be fine-tuned to the format that has been developed further by the British Dyslexia Association (2000), as a National Kite marking scheme. This initiative is, according to MacKay (2005) based on five key areas:-

- *“Policy.....putting practice into policy;*
- *Training..... ‘walking the talk’;*
- *Identification, assessment and monitoring.....rigorous scrutiny and immediate intervention;*
- *Responses to needs..... ‘walking the talk’ and*
- *Parents as partners..... ‘completing the loop’”*

(MacKay, 2004, p.227 in Reid and Fawcett, 2004)

Since the launch of the Dyslexia Friendly Schools Initiative, Reid and Fawcett (2004), estimate that 45,000 dyslexia information packs have been distributed across the UK to encourage schools to provide an environment in which children with dyslexia will be able to learn and grow.

The spirit of this initiative was that the teaching/learning strategies used with children who are dyslexic should be good teaching/learning practices, and must be appropriately used with all children. This level of inclusion will, according to Reid and Fawcett (2004), empower children who are dyslexic to be confident, and to feel that they can succeed and contribute to society. For this to be successful, the concept of dyslexia friendliness needs to underpin all teaching in the school, with all current and new staff trained in the ways of the new philosophy. This policy suggests that specialist teachers should make regular visits to the schools, and the schools should develop a culture of teaching that reflects a range of learning styles. This approach relies on all staff, regardless of their specialism, being responsible and sympathetic to operating teaching practices that will benefit dyslexic learners across the curriculum (BDA, 2000).

The Dyslexia Friendly Schools Initiative is a whole school teaching programme and it may be questioned whether a single approach will work with all children, all of the time. Winebrenner (1996) suggests that no one programme, or single approach, can take into account the individual learning patterns and multiple intelligences (Gardner 1993) of all the children in a school. No one method can seek to value individual talents and specialisms of the children or indeed the teachers that work with these children.

This concept of inclusive practice links into the Disability Discrimination Act (1995), which suggests that individuals who are dyslexic should not have to establish that they are dyslexic to have their individual needs met.

2.4.3. Teacher Education

A key issue for inclusion must involve teacher education, or the training of teachers and other professionals. This must, according to Florian et al. (1998) start with initial teacher training and permeate through the profession, with focussed and targeted in-service training and continuing professional development.

“All teachers need to be equipped with the skills required to address special needs issues, and it is therefore essential that initial teacher training gives a higher priority to making effective changes”.

(Florian et al., 1998, p.6)

The recognition of the need for training and education is reflected in some local education authority policy documents, such as Flintshire Education Policy Statement (1999) on children with special needs, which states that:-

“The LEA will maintain and update, according to teacher needs a training programme for all staff with children with special needs”

(1999, para. 2.10.)

More recently in the draft report by Rose (2005) the importance of effective teacher education was reiterated. This report emphasises that it is no more expensive to teach teachers effective methods of teaching children to read than it is ineffective methods, so it is important to get this “right”

Full inclusion will, according to Barton (2003), require a rethinking of the roles and responsibilities of teachers, classroom assistants and support workers, to enable collaborative team working for curriculum development and teaching, and this will require training and retraining. Despite this, according to a survey by Pumfrey and Reason (1991) of the local education authorities in England and Wales, there was a great diversity in teacher training provision for special needs, from none, to little, or some provision, (17.7% of the survey), to formal qualifications and diplomas (from 10.1% of the survey). Inclusion represents the opportunity to participate rather than something that can be made available, but this requires a change in professional

thinking and practice. Professionals must examine their own role in imposing limits upon the ways that people with disabilities exist in the world.

The OFSTED Report into Pupils with Specific Learning Difficulties in Mainstream Schools (1999) showed that in schools in England, few teachers and learning support assistants had formal training in the teaching of children with specific learning difficulties and recommended that the training of special educational needs co-ordinators should include guidance on the following:

“...nature and implications of specific learning difficulties and the structured multi-sensory programmes that are of benefit to the pupils with such difficulties”

(OFSTED Report into Pupils with Specific Learning Difficulties in Mainstream Schools, 1999, p.8 para. 24)

The range of policies to provide for children with specific learning difficulties and dyslexia from local authority to local authority was wide and various. The report recommends a more informed and unified approach to policy formulation. According to Lord Adonis (2005) when he was Parliamentary Under Secretary of State in the House of Lords Debate on Dyslexia, vital to ensuring the best possible provision for children with dyslexia is the “proper training of teachers”, training to include the best methods for teaching but also of assessment and screening at an early age. The Primary National Strategy (2003) in England has recently updated its advice to teachers where it advocates early intervention.

2.4.4. National Curriculum

Lewis (1991) argues that full participation for all children in the National Curriculum is desirable, but recognises that in some instances, and for some children, it is conceivable that it would benefit them to be exempt from the whole or part of it. She argues that by adapting the National Curriculum, or by placing the child in a younger teaching group, the child could access the National Curriculum without formal modification. Lewis (1991) claims that this slide from informal modification to formal modification is fluid, and it is difficult to be clear where the one becomes the other.

Lewis (1991), discusses a number of routes, for children with specific learning difficulties, through which the National Curriculum can be modified (where the child is doing the National Curriculum but it is altered in some way), or 'disapplied' (where the child is not involved in specific parts of the curriculum). This might apply for children with statements for special educational needs or for children with no statement. A child's statement, according to Lewis (1991), could exempt the child from certain foundation subjects, or from certain attainment targets within those subjects, to give more curriculum time for reading and self-help skills. Any modification or disapplication must be accompanied by an account of what is to be offered as an alternative (DfES, 1989). The government document, *From Policy to Practice* (1989), makes it clear that parents do not have the *right* to remove their child from the National Curriculum in the state system, but can request that a disapplication or modification be imposed or modified, but this would normally be discussed and resolved informally between the head teacher and the parents.

There is a clear expectation, according to Poole (2003), on behalf of the British government and compounded by the Welsh National Assembly, legitimised within the National Curriculum, that children must learn according to a pre-set plan. Government advisors decide what a child must learn and within what time scale. If children do not achieve this within this time limit, they are perceived of as "failures" and the school at which they attend is also classed as having "failed". Politically it is not acceptable, says Poole (2003), to accept too much "failure" and she cites local education authorities in England who are encouraged, by the national government, to restrict statementing of children to 2% of the school population (BDA/DfEE 1998). This can create a conflict that compounds the problems of the child with dyslexia, as support and resources for that child are only made available to the schools,

"...after much evidence of difficulties and a lengthy assessment process"

(Audit Commission, 2002)

This framework, according to Poole (2003) prevents early intervention, because a child must first fail in school before s/he is identified. Poole (2003) believes that the National Curriculum reflects the dominant values in our culture and therefore does not

really allow for children's differences, rather moving all children in the same direction.

“Celebrating a culture of left-hand side of the brain thinkers”

(Poole, 2003, p.171)

If the purpose of education is to help children to fulfil their potential then Poole (2003) suggests that a review of this rigid policy, whereby children's success is measured against nationally fixed targets, so that children who are unable to achieve these targets are put under immense emotional pressure to succeed causing distress for that child, and even family break up. Despite the attempt by the Welsh National Assembly to remove some of these pressures, with the abolition of Standard Assessment Tasks (SATs) for particular age groups (MacLeod, 2004), and league tables of schools, strict target setting does still exist in Welsh schools, with schools and their teachers judged on the degree to which they meet these targets (Estyn, 2005, www.estyn.gov.uk).

2.4.5. Code of Practice

In 2002, the National Assembly for Wales issued their Special Educational Code of Practice for Wales, to give practical advice to local educational authorities and schools in Wales, about special educational provision. This clearly states that:

“For the vast majority of children their mainstream setting will meet all their special educational needs. Some children will require additional help from SEN services and other agencies, external to the school. A very small minority of children will have SEN of a severity or complexity that requires the LEA to determine and arrange the special educational provision their learning difficulties call for”.

(National Assembly for Wales, 2002, p.1, para.1:2)

Every school, according to the Special Educational Needs Code of Practice for Wales (2002), must have a “*responsible person*” to ensure that teachers are always informed about pupils with statements of special educational need.

The Code details the procedures for a child who has been identified as having special educational needs such as dyslexia. Initially this child will be given assistance that is “*additional to*” or “*different from*” the usual school curriculum. These strategies will be offered by the class teacher and are referred to as “SCHOOL ACTION”. The teacher may then seek help from the special educational needs co-ordinator. All information about the child must be recorded and strategies of intervention noted within an Individual Educational Plan (IEP). IEPs need to be reviewed at least bi-annually. Policy developments in relation to IEPs reflect the need for schools to address individual learner needs within a politically led educational agenda (Tod 2002).

If a request is made for assistance from an external agency, this according to the Code (2002) will be done on behalf of the child through “SCHOOL ACTION PLUS”. This may result in a upgrading of the child’s IEP, with the aid of an outside specialist such as an educational psychologist. Each of these stages must have been exhausted before the head teacher may apply for a statutory assessment, which may lead to a ‘Statement of Need’. This statementing process must be completed within a prescribed time limit. According to the Code (2002), a statement is required when a child has a severe or complex learning difficulty or needs to be exempt from some part of the National Curriculum or where the mainstream school is unable or unwilling to make the appropriate help available.

The Special Educational Code of Practice in Wales (2002) clearly recognises dyslexia as a special educational need and details the range of their needs:

“These children may require some or all of the following:

- *Flexible teaching arrangements;*
- *Help in acquiring, comprehending and using language;*
- *Help in articulation;*
- *Help in acquiring literacy skills;*
- *Help in using augmentative and alternative means of communication;*
- *Help to use different means of communication confidently and competently for a range of purposes including formal situations;*

- *Help in organising and co-ordinating oral and written language;*
- *Support to compensate for the impact of a communication difficulty on learning in English or Welsh as an additional language;*
- *Help in expressing, comprehending and using their own language, where English or Welsh is not the first language.”*

(Welsh Assembly, 2002, p.85, para. 7:56)

The Code of Practice (2002) recognises the essential role of the class teacher in meeting special needs and puts the class teacher in the front line of responsibility for the delivery of any interventions stipulated in the IEP. The Welsh inspection agency ESTYN will scrutinize the evidence of how teachers address learning needs without underestimating intellect.

2.4.6. Parent Partnership Schemes

Parent partnerships are referred to in the Code of Practice for Wales (2002); this recognises the importance of parent partnership schemes, requiring local education authorities to set them up on a statutory basis.

“All parents with children with special educational needs should be treated as partners. They should be supported so as to be able and empowered to:

- *Recognise and fulfil their responsibilities as parents and play an active and valued role in their children’s education.*
- *Have knowledge of their child’s entitlement within the SEN framework.*
- *Make their views known, and have them carefully considered, about how their child is educated.*
- *Have access to information, advice and support during assessment and any related decision making processes about special educational provision.* (National Assembly for Wales, 2002, p.14, para. 2.2.)

The parent partnership schemes were established to allow parents to make informed choices by offering information, training, advice and support. This, it is contended, would allow parents to influence and inform local SEN policy and practice. The parent partnership schemes would also allow parents access to an independent parent supporter who will offer advice and help parents to cope with the local education authorities and a tribunal should they need one.

The Code of Practice in Wales (2002) repeatedly emphasises the importance of the parent partnerships:

*“All local education authorities **MUST** make arrangements for parent partnership services. It is essential that parents are aware of the parent partnership service, so that they know that they can obtain the information and advice they need”*

(National Assembly for Wales, 2002, p.17, para. 2:16)

Emphasis is also placed upon the importance of pupil participation.

“Children and young people with special educational needs have a unique knowledge of their own needs and circumstances and their own views about what sort of help they would like to help them make the most of their education”

(National Assembly for Wales, 2002, p.25, para. 3:2)

This document shows that it is considered good practice to have policies and procedures that encourage pupil and parent involvement.

This literature review has shown that dyslexia is not a simple, “uni-phased” issue that can be overcome by structured literacy programmes or even by impressive policy initiatives alone. It is short sighted to consider children with dyslexia in isolation from other children and families with special needs. It is likely that whether inferior or high-quality practice exists it raises issues that are not specific to children with dyslexia, but reflects the overall interaction that exists in home/school relationships. A study by Griffiths et al. (2004) suggests that weaknesses in this area do exist and in

particular at the level of individual exchanges between teachers and parents. Although this was quite a small study conducted for the British Dyslexia Association and the Buttle Trust, it was an in-depth analysis of children and families across five local education authorities in England. This study also demonstrated a considerable amount of dissatisfaction across the local education authorities sampled with regard to partnerships in practice. The study goes on to discuss the need for “respect”, “effective communication”, “appropriate action by teachers and local education authority representatives” and an “extended professionalism”, to incorporate a sensitivity to a parents concerns for their children and the child’s education. However, communication will be difficult if professionals are unable to acknowledge a parent’s intimate knowledge about their own child.

Pugh et al. (1987) described parent partnerships as an active process:

“...a working relationship that is characterised by a shared sense of purpose, mutual respect and willingness to negotiate. This implies a sharing of information, responsibility, skills, decision making and accountability”

(Pugh et al., 1987, p.5)

A later study by Croll (2001) talks of a “strong tradition” of teachers seeing parents as problems and suggests that teachers attribute about a quarter of the causes of children’s learning difficulties to home factors.

The report by a working party of the Division of Educational and Child Psychology (1999) emphasised the importance of a clear working definition of dyslexia to the formulation of social policy decisions. This is, as has already been shown in earlier sections of this chapter, is still difficult to pin point. The report (1999), however, shows that although dyslexia is recognised in legislation as a special educational need, it also expects that in all but “exceptional circumstances”, it will be catered for in mainstream schools, without a statement of Special Educational Need, so will be addressed by the schools’ own special educational provision. Local policy will also largely determine the “cut off” points of diagnosis between mild, moderate and severe dyslexia, and therefore the classification of special needs.

Despite a great deal of agreement about policies involving inclusive education (Florian, 1998), difficulties still remain with the implementation. Criticisms still remain of poor quality or partial implementation, with teacher training needed to support implementation difficulties and variability (Florian 1998). It is perhaps not sufficient for a positive attitude alone for successful implementation of inclusion policies for children with dyslexia. An unskilled teacher, no matter how willing, needs support and training from more experienced colleagues, and a clear understanding of the needs of the children, their abilities and their disabilities. Policies that only partially meet these conditions are doomed to fail. The combination of a policy for children with dyslexia in schools which can be both educationally desirable and economically successful, has an understandable appeal to politicians and administrators, however, parents and educators are often more cautious and understand that policy and legislation must not be based on the presence of a label, but upon the identification and fulfilment of a need.

Section 2.5. Welsh Issues

According to the 2001 census from the Welsh Language Board (www.bwrdd-yr-iaith.org.uk/ accessed 22.04.05.) 16.3% (457,946) people in Wales speak, read and write in Welsh. However according to Tudor-Efans and Cooke (2000) the pattern of the Welsh spoken in Wales varies considerably from region to region, with a considerable range of syntactical and lexical variation and strong regional accents. In some areas little Welsh is spoken and Welsh language learners are learning it in a way similar to any new language introduced. In other areas, particularly North and West Wales there is a high proportion of first language Welsh speakers, and many children educated in Welsh medium schools. In these areas, the objective of the Welsh Language Board is for all children to become bi-lingual in English and Welsh. Children in these areas start learning Welsh as a second language in the nursery/reception class.

“Most young children from non-welsh speaking homes....dyslexic children among them...learn to speak the language without undue difficulty when it is introduced as part of the medium of communication in school”

(Tudor-Efans and Cooke, 2000, p.39)

Welsh spelling is relatively simple because once the child has mastered the alphabet (which differs from English); all the words become intelligible due to the regularity of the language. Welsh grammar, however, is according to Tudor-Efans and Cooke (2000), extremely complex, with the sort of mutations which are common to Celtic languages often difficult to hear and difficult to pronounce, especially for children with dyslexia.

Bi-lingualism used to be seen as a disadvantage to the child according to Turner (2000), when two words need to be learned for everything; but it is now considered an enormous advantage in an increasingly international world, and a “good long-term investment”. However, teaching bi-lingual children can raise particular questions, such as whether the child is having difficulty accessing the curriculum because s/he has general learning difficulties or whether the difficulties arise due to their attempts to learn in a second language. Distinguishing between these two can, according to Kelly (2002), seriously affect their rate of achievement and the learning strategies employed by the teacher.

Kelly (2002) claims that tests are frequently culturally biased and that the norms are often calculated on a different population from the children with which they are to be used. Tests often do not translate well from one language to another, and even tests that are designed for bi-lingual children, may not be suitable for use in a different part of the country. Smythe (2002) cites the case of ‘David’, who spoke only English for the first five years of his life. In line with his parents wishes he went to a Welsh medium school to enable him to be fluent in Welsh. David experienced considerable difficulty with his spelling.

“David’s parents were told that it was best if he was brought up in an English medium school. The local authority has neither the educational psychologist nor the test material to assess his literacy skills in his preferred language, Welsh”.

(Smythe, I., in Johnson and Peers, eds., 2002, p.239)

Any attempt to develop a test in another language must overcome translation problems. This requires experts in both languages to understand what the tests are trying to measure rather than simply changing the words, for example, a straight translation of a test for rhyming is unlikely to be a test of rhyming in another language.

The Welsh Dyslexia Project was established as a charity to work with parties in Wales interested in improving the opportunities for children with dyslexia in the principality. (www.dyslexia-achive.bangor.ac.uk accessed 09.07.02). An application to the National Assembly in Wales for finance allowed the Welsh Dyslexia Project to develop a testing procedure that enables Welsh speaking children in Wales to be tested for dyslexia in their preferred language of either English or Welsh. It is anticipated that a battery of tests will be developed with norms, appropriate to the language context. The original material for the tests was developed by Ian Smythe from the University of Surrey, based upon his International Dyslexia Test (Everatt, J. and Smythe, I. et al., 2000). This test was designed for cross linguistic comparisons, but adaptations were needed to enable the test to respond to the particular demands of the Welsh context. The standardisation of the tests were completed in May 2003 and are now available for all primary school pupils in Wales under the directorship of Dr Victor Van Daal at the University of Wales, Bangor.

The All Wales Reading Test, the first group reading test in both the English and Welsh languages was developed, according to Forbes and Powell (2000), by the collaborative efforts of twenty Welsh Local Authorities. The project was led by Swansea Education Psychology and Formal Assessment Service. The test was developed in consultation with the National Federation for Educational Research (NFER 2000). When developing this test it was important that it should not contain items that might discriminate against some children because of their unfamiliarity with forms of language more prevalent in other parts of Wales. Standard written Welsh varies greatly from spoken Welsh, which is a more colloquial language. Welsh and English versions of the test were developed but are not direct translations of each other, although some parity is implicit...same illustrations, similar storylines.

Lindsay Peer and Gavin Reid, speaking at the 5th British Dyslexia Association conference in 2001, emphasised the importance of meeting the needs of bilingual children on financial grounds, but also in terms of equality and what is best educational practice.

“Identifying the literacy and communication needs of the bi-lingual children in a culture-fair manner will not only help to ensure the preservation of the culture but also help to identify the cognitive abilities and communication skills of the bi-lingual children.”

(Peer and Reid; 2001, BDA conference talk)

2.5.1. Culture-fair assessments

Peer and Reid (2001) see the need to devise culture-fair tests as crucial to the ability to provide successful intervention for bi-lingual learners. This requires the provision of the resources and reading materials that acknowledge the diversity of the individuals within their communities, ensuring that they are culturally appropriate. It may be noted that, according to Peer and Reid (2001), the report on the Stephen Lawrence enquiry, (McPherson Committee of Enquiry; 1999), suggested that every school should examine its policies in order to ensure that no section of the community is placed at a disadvantage. It would be ironic to discover that in Wales, the indigenous language speakers were at a disadvantage, due to a lack of assessment and reading materials in Welsh. If the barriers to literacy for bi-lingual speakers and readers are to be overcome (Peer and Reid 2001), it will be important for the whole process of learning and acquisition of language to be understood. Once the concepts and schemas of reading, in a particular language, are understood, it will be easier, according to Peer and Reid (2001), to apply them to other experiences and learning concepts.

The importance of using culturally relevant materials is reiterated in the Report by the Working Party of the Division of Educational and Child Psychology of the British Psychological Society (1999):

“As linguistic proficiency is a pre-requisite for gaining access to meaning, children have a double disadvantage if they cannot understand the content and also struggle with the orthographic representations. Dyslexia may be masked by limited mastery of the language of tuition”.

(The British Psychological Society, 1999, p.60, para.6:7)

Turner (1997), whilst defending the case for intelligence measurement, highlights the futility of testing procedures using untranslated materials, for children for whom English is not their first language. Peer and Reid (2000) describe two situations, one of a false positive in which there is a risk of labelling a child as having a learning difficulty when none exists; thereby discriminating against a child whose home language is not “Standard English”. The second situation is that of the false negative when there is a failure to identify the learning difficulty early enough and thereby the child does not receive the appropriate support required. An example of research that show this clearly is Zindi (1994), who appeared to show that more than half of Zimbabwean children, measured on an English, untranslated test, were within the subnormal range! Bi-lingualism is therefore a major factor in any such survey or assessment. A particular difficulty in Wales is that the language spoken in the home may well not be the same as that given in the school, and that the language of the South of Wales differs considerable to the language spoken in the North of Wales. (Spencer and Van Daal 2003)

Success in learning to read according to Cline (2002) involves putting together what it says and what it means from all the cues available. Cline (2002) suggests that children reading in a second language make less use of contextual cues than when reading in their first language, hence their ability to read the second language aloud is often more advanced than their ability to understand what they read. This, according to Frederickson and Frith (1998), implies that the gap between their performance in their first language and their second language is one of comprehension rather than accuracy. The comprehension of the text appears to require skills that are more developed in their first language than their second language.

“a broad and well catalogued vocabulary, a clear understanding of syntactical structures, an appreciation of the expectations linked to the genre

of the passage, and access to the full variety of cultural reference that the author takes for granted in the reader”.

(Cline, 2002, in Reid, G. and Wearmouth, J., 2002, p.203)

Clearly, the task of assessment requires,

“...a sensitive and sympathetic understanding of a child’s community, culture, family life and individual characteristics.”

(Baker C, 2001, p.310)

According to Cline (2002), there are certain challenges to learning to read for children for whom English is not their first language, for example, an understanding of how texts are organised differently in different languages, and the cultural background of the text. Children will take longer to access words from their lexical memory and their range of vocabulary is likely to be more limited in their second language than in their first language. This is, according to Cline (2002), likely to be exacerbated when they are reading to their “frustration level”. Cline (2002) found that there was some evidence that they transfer some of their literacy knowledge from their primary language to their second language. An important factor in their ability to read in a second language is, he says, how the written language they encounter relates to their sense of cultural identity.

A case study of an English/Japanese bi-lingual sixteen-year-old male by Wydell (1999) reported that there was a total disassociation between his ability to read English and Japanese. Wydell (1999) hypothesised that any language where orthography to phonology mapping was transparent (at a whole character or whole word level), will not produce a high incidence of dyslexia. As a consequence, the concept of developmental dyslexia is almost unknown in Japan, despite Japanese children having to cope with three different scripts. Wydell and Butterworth (1999) suggested that orthographies could be described in two dimensions that are referred to as “transparency” and “granularity”. Transparency, they describe, as any orthography where the print to sound translation is one to one, regardless of the level of the translation, (phoneme, syllable, character, word). Granularity, they describe as when this relationship is opaque and not one to one. Wydell (1999) hypothesises that any

orthography where the smallest orthographic unit representing sound is whole character or word will not produce a high incidence of phonological dyslexia. Thus in Japanese the orthography to phonology translation is one to one in all the orthographies used in Japanese, and therefore it would not be expected for there to be a high incidence of phonological dyslexia in Japan. By contrast, in English, the orthography to phonology translation is not always transparent and regular, for example, *cave/have; foot/food/ boot*. Consequently the English language may lead to high incidence of phonological dyslexia. It is therefore possible, according to Wydell's (1999) hypothesis, for a child to be dyslexic in English but not in Japanese or other transparent language. Interesting parallels may be drawn between English and Welsh, which is a regular and transparent phonological language. Welsh is a highly consistent language, with few exceptions to one to one, sound to spelling regularity; irregular spellings are rare.

Everatt and Smythe et al. (2000) suggest that we need to assess dyslexia from a wider perspective, and perhaps the evidence from Wydell (1999) and Cline (2002) lends weight to this idea. The view that dyslexia is only concerned with "phonological awareness" may be too narrow and we may be preventing some children from accessing the help that they need because the language that they use does not reflect the other difficulties and biological causes that the dyslexic child could be experiencing. Deponio, Landon, Mullin and Reid (2000) showed in their study carried out in 144 Scottish primary and secondary schools that bilingual learners are significantly under represented among children who are dyslexic. Only by assessing a range of cognitive, environmental and physical difficulties that affect the acquisition of reading and writing can we hope to build a profile of the child to identify which skills need to be strengthened to enable them to access the curriculum in an equal manner to their non-dyslexic peers.

2.6. Conclusion

Assessment of dyslexia needs to be seen as a continuing process and not merely a product. All assessment can be of value when it is clear what the assessment is to achieve, in a case where it is in doubt, such as the assessment of dyslexia, it is hard to see how useful that assessment could be. It is clear from this review that there is

still a great deal of confusion about the whole area of recognition and identification of dyslexia, and still greater concerns about the best ways to help the children in the schools who exhibit signs of the condition. More questions than answers have been drawn from this review, and until there is a clear consensus of opinion within the educational and psychological world about the full nature of the condition in all its phases of severe, moderate and mild dyslexia (Pumfrey 2001), then the wider questions of prevalence and assessment will be hard to answer. Without clear agreement about the nature of the condition, it is not possible to draw clear inferences about its prevalence and to compare research, confident that it is a comparison of like with like. This could explain the wide variation in the research surrounding the area of prevalence of dyslexia and policy production.

What does appear clear is that the research has moved on from the limited definitions of dyslexia based upon difficulties in reading and of deficits with intelligence, and broadened into a definition that can depict a wide range of limitations and strengths that are closely linked. No one biological, neurological or physiological factor can be shown to be the cause, although new research does suggest that the brain activity of the child with dyslexia is different from the child who does not experience the condition (Rack, 2005). It may therefore, be possible in the future to establish the patterns of brain function and the genetic indicators, for both the correct and early diagnosis, and appropriate educational support.

This chapter has attempted to review some of research within the field of dyslexia and policy in Wales. The scope of this review is of necessity limited; constraints of time and limits of the size of research have restricted the review of to an examination of the principal empirical researchers and critical thinkers in the field of dyslexia, policy and prevalence. Furthermore, although the review addresses the works of many of the research areas, relevant examples only of these studies have been included as the literature is extensive, complex and at times highly problematic leaving many loose ends and inconsistencies.

Chapter 3

Policy Formulation and Implementation

“All government, indeed every human benefit and enjoyment, every virtue, and every prudent act, is founded on compromise and barter.”

[Ib] Edmund Burke 1729-1797

Introduction

- 3.1. What is policy?**
- 3.2. Who makes policy?**
- 3.3. Why the need for policy?**

Introduction

The aim of this chapter is to review the literature on policy making, policy design and evaluation and to set the research into the context of an insight on policy formulation. It begins with an examination of the definition of a policy as set within an educational framework. From this discussion of definitions the chapter moves on to examine the role of policy makers and their part in the complex issues which characterise and inform policy initiatives.

3.1. What is policy?

According to the Oxford English Dictionary a policy is:

“A course of action or principle adopted or proposed by the government, party or individual, etc; any course of action adopted as advantageous or expedient”.

This implies that a policy may not necessarily be a written document, but is more what effect a setting actually has, in other words what can be inferred as their accepted corporate practice. If we accept this definition, then it is possible to see that

practice may move ahead of documented policies and that written policies may come out of good practice rather than the other way around. Written policies are usually tested and trialed before they are set into concrete forms. Documented policies therefore, need agreement and concordance, without that they cannot achieve effective practice.

Reviewing the literature about the nature and definition of a policy it is readily apparent that the dictionary definition is not sufficient on its own to describe what is happening to produce effective practice. Defining the term is in itself complex and contentious. Gill (1973), describes policies as the:

Guiding principles or courses of action adopted and pursued by societies and their governments as well as by other groups or units within societies” (Gill, 1973: p 12)

Although an attractive definition, this seems to be a simplistic definition of a complex concept, in contrast Mackintosh (1992) brings within her definition the idea that there is something deliberate and deliberating about the nature of a policy.

“’Policies’ are purposive actions undertaken by the state (governments and their employees), or other institutions (such as voluntary organisations) with an avowedly public purpose. That is they are actions conceived as (or defended as) serving some wider public objective, such as social or economic development, and no (or not solely) individual private gain.”

This definition is clearly much more complex and contains within it the importance of economics, finance and the rationale and function of their development as a public good.

However, Blakemore (2003), takes this much further and describes a policy as a “living thing” and far from simply a piece of legislation or written guidelines, a policy is what is implemented in practice and what happens at ‘ground level’ or at the ‘chalk face’ According to Blakemore (2003) a policy is the:

“Aims or goals, or statement of what ought to happen. Social policies aim to improve human welfare (though they often fail to do so) and to meet human needs for education, health, housing and social security.”

(Blakemore, 2003: p 1)

From this range and progression of definitions it is apparent that a policy is no one thing or outcome but more of a process, emerging from the integration of ideas and agencies or a prescription based upon a proposal from these agencies, which usually involves public investment. This concept of policy as a process is reiterated by Ozga (2000) in her concept of policy as being everywhere in education, not just the preserve of central government, thereby creating a democracy within the process.

3.2. Who makes policy?

It could be claimed that government shapes policy in education but what happens at ground level is a complex mixture of civil servants, local officers, inspectors, teachers, governors, key interest groups such as parents and voluntary organisations and in Wales this is enhanced by a further level of national government the National Assembly for Wales. Blakemore (2003) suggests that these parties/organisations are sometimes partners and sometimes rivals in the creation and management of policies

Government devolution for Wales in 1997 represented an historic change to the administration and character of the United Kingdom. Policy divergence was an inevitable consequence as each area of the UK (England, N. Ireland, Scotland and Wales) sought to create their own distinctive identity, with unique policies to suit the needs of their own peoples. Of all the devolved administrations of the UK the Scottish Parliament has the greatest powers and the National Welsh Assembly has the least. The National Welsh Assembly has no tax varying powers and Westminster has control of the most important powers of raising revenue and taxation. The Welsh National Assembly can pass only secondary legislation (HMSO 1997), so legislation in Westminster must be implemented by the Welsh Assembly. However, the Assembly does have considerable powers to adapt the legislation as it will apply to Wales and to set its own priorities.

Welsh schools have run traditionally along English lines despite the distinctive culture and ethos of the Welsh system and the policy to teach Welsh in every school as part of the National Curriculum and the existence of Welsh medium schools at all Key Stages. Education in Wales differs from England also in the Assembly's policy decision in 2002 to suspend Standard Assessment Tasks for seven year olds, to abolish published league tables of school performance and to abandon the system of literacy and numeracy strategies in primary schools (National Literacy Trust, 2005). It is clear that although the National Assembly cannot raise its own taxes and has no power to change the overall amount of public money at its disposal, it does have considerable freedom to change spending priorities.

Ahier, Cosin and Hales (1996) talk of policy generation as "remote and detached from implementation", and as something that "gets done" to people by the policy makers. This produces a very linear model of policy formulation, much in line with the original dictionary definition (3.1), whether 'top-down' or 'bottom-up'. This model of policy formulation does not allow for extensive consultation prior to legislation or implementation, but demonstrates tight control by the policy makers. Ahier et al. (1996) suggests that state control over a government's approach to policy construction excludes practitioners, despite legislation in Wales to create parental partnerships and great control of schools by governing bodies (National Assembly for Wales, 2002).

Ahier et al. (1996) suggest that most policy can be interpreted in diverse ways. Policy, even written policy can have more than one interpretation depending upon the "tightness" of the legislation, but also upon the context or setting for that policy and its values and intents.

"for any text a plurality of readers must necessarily produce a plurality of readings" (Codd 1988: p239).

According to Bowe et al. (1996) policy design and implementation are not two separate actions, but one continuous feature of the policy making process, with the policy continuing to generate itself after its initial official formulation. Once a policy has been formulated the contexts of the classroom, departments, schools, local

education authorities and individual teachers, parents and their relationship with each other become crucial to the successful working of the policies at the 'grass roots', carrying potential constraints, contradictions and gaps. Bowe et al. (1996) suggests that there must be "*compromises and accommodations*" (p 281) to implement policy in such a variety of settings and contexts. This demonstrates a differing view to that of Gill (1973) where policy is 'done to someone'. Bowe et al. (1996) believe that educational policy implementation relies upon the goodwill, commitment and energy of the teachers to 'make it their own', thereby creating a policy making cycle. Policy in this guise is not completed at the time of writing but then evolves in relation to time and context, so that it is dependent upon interpretation and thereby re-creation.

Bowe et al (1996) point out that those implementing policies are not usually naïve readers but they are typically professionals within their own field, with a vested interest in the interpretation of the policy within the context of their own histories and backgrounds, values and interests. This implies that policy makers will be in control of the meaning of their text and that policies will have 'effects' rather than 'outcomes'.

"Parts of texts will be rejected, selected out, ignored, deliberately misunderstood, responses may be frivolous etc." (Bowe et al. 1996: p 286)

Ozga (2000) emphasizes the need for the policy makers to be kept in touch with a clear range of independent educational research to help to prevent them from over simplifying or restricting the research that they receive and using it to their own aims to support their chosen policy direction. Ozga (2000) discusses how research can be controlled by the policies and the language and needs of the policy makers, whereas self controlled research can allow the researchers to identify their own aims and objectives and their own relationship to the pre-existing policies.

3.3. Why the need for policy?

Policies are, according to Laver (1986), generated to reconcile conflict where agreement needs to be sought, where there are incompatible and contradictory ideas and there is a need for the setting of common standards.

The evidence from this review shows that many influences come to bear in the process of policy making, but Blakemore (2003) argues that the economics of the policy is the more influential upon whether a particular policy will come to fruition as it influences the numbers of staff employed to implement a particular policy and thus the use of equipment, resources and premises. The political acceptability of a policy will also influence whether a policy is accepted or not; how will the public/professionals view a particular change in policy, how does it 'fit' with the cultural, religious and ethnic mix of the population. Policy making will also be influenced by previous political decisions, the size of the government majority and changes in elections.

If we consider policy to be a social process, then the nature of the policy making institutions are important as many policy ideas cannot be implemented or even formulated until institutions emerge to put them into practice. However, values are not free of the social context in which they are conceived. It is important to know when researching policies what particular values are operating within that policy so they cannot be separated from over arching issues of equality, justice and conflict. This research is concerned with what Ozga (2000) refers to as policy analysis. She quotes Dye (1981) who defines policy analysis as.

“Finding out what governments do, why they do it and what difference it makes.” (p.39)

Policy analysis as discussed within this research seeks to influence the policy makers by adding to the body of knowledge within the area of policy construction.

Policy makers are part of the decision making process and are responsible for developing a clear vision and relevant interpretation of strategies to take up the challenge of the mission they have been given. Educational policy formulation is according to Gorard (2000) a vastly complex and political process, and owes its complexity not only to the fact that education is a sector where it is difficult to identify and define terms, such as we have seen in the definition of the condition dyslexia, but also the diversity of interests that education represents for the different

parties involved. Any policy development within an educational setting involves difficult and multidimensional problems. Faced also with financial constraints governments are not able to meet all the social demands without adopting some restrictive measures within the sector or “robbing Peter to pay Paul”, in order to rationalise the use of the allocated resources. Within the dynamics of educational management and the effective and efficient allocation of public finance, managers have to make difficult decisions to regulate the utilisation of scarce resources, without in any way leading to service disruptions and dysfunctions. Because there are so many variables and interrelations within that decision making process, juggling pressures from national government, local and regional governments, special interest groups, parents and public opinion, it is necessary to have a reliable information system, to facilitate policy making and policy for action. Clear and relevant research within any area is often in short supply, expensive, and interpretations are frequently confusing, producing more information and data, rather than facts upon which to base decisions.

A policy statement for dyslexia should, according to Mackay (2004) define good practice and clearly set out, for all teachers, parents and support staff how this good practice can be delivered, maintained and evaluated. A clear policy statement should offer unambiguous guidelines to ensure that all staff that come into contact with a child in a professional context, are aware of how to understand the ethos and culture of the school and therefore how to proceed. This will involve detailed planning if effective policies and procedures are to be developed for children with dyslexia, with vertical planning between local education authorities, schools and staff supporting children with dyslexia and a horizontal integration of ideas from all parties involved including parent partnerships and a concept of whole school support in place for the children and their families.

Chapter 4

Research Methods Review

Pan feddwn dalent plentyn I weld Llais a chlywed Llyn....
(When I had a child's talent to see a voice and hear an image....)

Gerallt Lloyd Owen poem Afon (River) 1944-

Introduction

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4.5. Conclusion

Introduction

The literary evidence reviewed in this thesis describes a substantial ongoing debate relating to the use of diverse methodologies and reveals a considerable disparity of opinion. The following chapter examines some of these issues with reference to the subject area examined within this research.

4.1. Choice of Methods

4.1.1. Qualitative versus Quantitative

According to Lincoln and Guba (1985) qualitative and quantitative research should remain separate because the philosophies of qualitative and quantitative approaches can never be reconciled, however the use of both qualitative and quantitative is widely debated in the literature reviewed in relation to issues of methodological pluralism and triangulation. The literature shows evidence of considerable discussion relating to four areas of argument:

1. How quantitative methods can be improved (Cohen et.al, 2000)
2. Differing opinions relating to the philosophies which underpin quantitative research (Kelle, 2001)
3. Arguments relating to pluralism in qualitative educational research (Cohen et al. 2000)
4. Arguments and counter arguments as to whether qualitative and quantitative methods should be combined (Kelle, 2001)

Kelle (2001) provides literary evidence which recommends that qualitative and quantitative research *can* be used together to allow a deeper investigation into a whole range of research issues by considering three perspectives of method triangulation. Likewise, Feilding and Schreier (2001) investigate how researchers view the

combination of qualitative and quantitative methods, by considering the perceptions of qualitative researchers in relation to their beliefs and attitudes to the combination of qualitative and quantitative research methods. This review revealed a significant body of opinion, which agreed that qualitative and quantitative methods can be combined whilst exposing widely differing views as to how this combination might be achieved.

Ozga (2000) proposes that a key driver in the selection of research methodologies should be a consideration of what constitutes good evidence and suggests that the type of evidence required should depend upon the phenomenon of interest and the research question posed and not solely on the paradigm.

4.1.2. Positivism and Naturalism

There is also a disparity of views amongst qualitative and quantitative researchers, which questions the objectivity of quantitative research (Hammersley 1989). For example, is quantitative research as objective as most researchers believe and what evidence is there that qualitative research lacks purity and clarity in its objectivity? Flowerdew and Martin (1998) found the views to be diverse; whilst some empiricists supported the philosophy of positivism others approached the issue with a more naturalist inflection.

“This point is nowhere more apparent than in the contexts of classroom and school where the problems of teaching, learning and human interaction present the positivist researcher with a mammoth challenge.”

(Cohen et al., 2000, p.9-10)

In the area of educational research a positivist approach is however, a well used methodology. MacNaughton et al. (2001) cite a number of examples of positivist research used effectively to investigate and assess children’s attitudes and understanding of mind, especially where there is an emphasis upon quantitative data capture through structured and semi-structured interviews or questionnaires.

“We are not faced, then, with a stark choice between words or numbers, or even between precise and imprecise data: but rather with a range from more to less precise data. Furthermore our decisions about what level of precision is appropriate in relation to any particular claim should depend upon the nature of what we are trying to describe, on the likely accuracy of our descriptions, on the purposes and on the resources available to us; not on ideological commitment of one methodological paradigm or another.”

(Hammersley, 1992, p.169)

Flowerdew and Martin (1998) found a variety of views amongst researchers; whilst some supported a philosophy of positivism combined with qualitative techniques, others adopted a more rigorous interpretation of positivism.

Gregory (1994) defines positivism as having five central elements:

- “ 1. Scientific statements were to be grounded in a direct, immediate and empirically accessible experience of the world. Therefore observation statements were privileged over theoretical ones.*
- 2. Scientific observation had to be repeatable and their generality was to be a unitary scientific method that was accepted and drawn upon routinely by the scientific community as a whole.*
- 3. Science could then advance through the formal construction of theories which if verified empirically would assume the status of scientific laws*
- 4. These scientific laws could have a strictly technical function, in that they would reveal the effectiveness or the necessity of specific conjunctions of events.*
- 5. Scientific laws would be progressively unified and integrated into a single and incontrovertible system of knowledge and truth.”*

(Gregory, 1994, p.455)

The rigidity of the statements in Gregory's definition of positivism calls into question the probability of universal adherence to them. For example in Gregory's second statement, he calls for one scientific method that would be universally agreed and adopted. The adoption of Gregory's proposals by the whole scientific community appears to be very unlikely, as the rigidity of such proposals in defining positivism would seem to be one of its greatest weaknesses.

The anti-positivist movement has greatly influenced the world of science and in particular the social sciences of psychology, sociology and social psychology. The naturalist approach to research as argued by Cohen et al. (2000), requires the researcher to share the "frame of reference" with those being observed. The naturalist approach can be seen as a far more subjective approach to research, but far from being in competition with positivism can be seen as complementary. It is possible to argue that the positivist approach whilst attempting to be objective in its approach is also mechanistic and reductionist and does not allow for the uniqueness and free spirit of the human being.

4.1.3. Debate in Relation to this Research

The research design of the current thesis is supported by the recommendations of researchers such as Kelle (2001) and Mac Naughton et al. (2001) who advocate the combination of the best approaches and methods to answer the research questions. If the mere title of the method begins to be more important than the underlying approach then the research design could become corrupt. Therefore, greater focus should be given to examining the research problem in its entirety. The research methods used should be appropriate to the objectives of the research and the needs of the particular stage reached and hence the type of knowledge to be discovered. Different approaches serve different functions in the information gathering process.

4.2. Empirical Research

The research conducted for this study falls partly into the category of empirical research. This according to Cohen et al. (2000) is research which assumes that reliable data is founded upon experience and practice. This implies that the nature of the

evidence gathering is vital to the viability of the research question or hypothesis. Mouley (1978) quoted in Cohen et al. (2000), cites five steps to the process of empirical research. Firstly, he quotes '*experience*', engaging with the research data or subject area; secondly, '*classification*' when the mass of data collected is sorted and put into identifiable groups or categories with similar or dissimilar characteristics. '*Quantification*' is Mouley's third category, when in a mathematical format the data gathered is coded and analysed. The fourth category is a '*discovery of relationships*' when the work is evaluated and comparisons are made to each other in a search for patterns or non-patterns. Finally Mouley (1978, in Cohen et al. 2000) talks of the '*approximation to the truth*', when these patterns are compared to the science as we already know it.

Empirical research obtains data from the subjects in the study; clearly, the intention of this research was to approach teachers, head teachers, educational psychologists and policy makers who are working directly with the children who are affected by dyslexia and literacy difficulties within the context of our educational society.

4.3. Evaluation of the Research Methods to be Employed

The combination of methods used for this research study, questionnaires and interviews, quantitative and qualitative, is justified in terms of research methodology on the basis that it can explain more fully the richness and complexity of the subject matter by approaching the phenomenon from more than one methodological standpoint MacNaughton et al. (2001). The data collection for this research by survey/interview was qualitative, but lent itself to quantitative analysis of the content observed. Responses were coded and represented numerically so that statistical tests could be applied to describe the data more effectively, facilitating comparisons, testing for correlations and assessing the significance of the findings. It is a common approach in validation (Burroughs, 1975) to use more than one data collection method to ensure that the researcher's picture of the research was not distorted and was not simply an artefact of the one specific method of collection. This allowed the researcher to benefit from the advantages of each of the methods, whilst trying to minimise the impact of their individual weaknesses. This is particularly so when, as in this research, there is a need to respond to a multiplicity of perspectives. Accordingly,

the range of methods and variety of data sources provided access, and insights into, the issues from the perspectives of the staff on the ground, and in the classroom, and from the perspective of the policy makers, each of whom could potentially be viewing these issues from a different standpoint, and thus have a different classification of their priorities.

As was suggested in Chapter One, there were also pragmatic reasons for adopting this approach. In particular, given the levels at which the research and interpretative analysis have been considered, namely organisational and interactive levels, then the merits of such an approach were considerable, in terms of time, financial constraints and target setting. Moreover, given the immediacy of the interviews as a style of research, and the way that the associated methodology, the questionnaire, facilitated direct access to such a rich source of data, then there were strong epistemological justifications for the methods chosen such as reliability and validity.

In sum, it is argued that the research design and richness of methods chosen, together provided the researcher with a high degree of flexibility which enabled her, through a triangulation of methods, to obtain a full appreciation of the context and situation being studied and that when combined they opened up access to a rich variety of information sources (Cohen et al. 2000). The methodology was appropriate for taking forward an empirical research investigation that required suitable methods for the study of policy implementation issues, and the management of those policies on a day-to-day basis. In short, the way the researcher viewed the potential reliability and validity of the data influenced the selection of the methods.

At this point consideration is given to the limitations and difficulties with the methods employed. Whilst it is fully acknowledged that attention must be drawn to any weaknesses or flaws in the methodology and its application, this is not intended to imply that the overall credibility or validity of the findings is compromised. In any research project such as this one, it is inevitable that the researcher may, in retrospect, take the view that the use of methods might have been improved. In addition, unexpected factors can and do arise during research, and their effect should be assessed. Moreover, the possibility that there may be reservations about the authenticity, accuracy or honesty of the replies from the respondents also needs to be

considered, according to Cohen et al. (2000) there needs to be a trust developed between the researcher and the respondents. The researcher has already drawn attention to several possible problems and flaws earlier in the study and these will be revisited in this next section.

4.3.1. Issues Arising from the Interviews

The first task is to enunciate reservations about the interview process. Two issues in particular will be addressed; the small numbers involved and therefore the issues of representation and significance; and the matter of the understanding and interpretation of the interview questions by the respondents. Upon reflection, the research could have included a wider range of representatives from the local authorities to increase the survey population, thus helping to address the issue of small sample numbers. However it is noted that each local education authority was asked to nominate a suitable person or persons to represent the views of the authority and that although it took some time, almost a year, to track down all the nominees the final response rate for the twenty two local authorities was very high at 100%. The original intention of the research was to try to ascertain the broad thrust of staff views and not necessarily to argue for precise statistical significance in these results. In addition, in some local authorities, the full time staff numbers are small and therefore the problem would not necessarily have been obviated by surveying the entire population, which is not large enough to begin in terms of precise statistical analysis. It may be noted that the selected and nominated staff to undertake the interviews represented a broad range of employment role and responsibilities within the individual authorities, with employee roles ranging from those specifically working with children with dyslexia, such as the head of the dyslexia service, to more general language support service managers, advisors, statementing officers, chief educational psychologists and special educational needs support co-ordinators. Each of these will no doubt be coming to the interview with very different perspectives, influenced by their own opinions, specialism, training and experiences. Use of an interview technique and thereby close co-operation with the subjects enabled the researcher to observe close up the issues and problems and to explore, with the respondents, the particular points in question as they arose. The interview survey was not intended to represent the principal or only

data source, but to add an additional qualitative dimension to the study and to provide support for the main thrust of the thesis.

Regarding the issue of different respondent's interpretations of questions and the difference in meaning attached to items in the survey, the view taken by the researcher is that recognition of this dimension has been a positive aspect of the use of the interview model. It provided the researcher with the understanding that the matter of interpretation of the interview and interview questions is a policy implementation issue, since it alerted her to the extent to which different groups may have differing agendas and interests in respect of policy implementation. Indeed the study has confirmed that there is a sound basis for this view.

The researcher recognises that various aspects of the researcher's personal views and predispositions relating to the subject matter and her interests in the area being investigated may have been apparent on a cumulative basis at various points in the study, including the introduction. This could undoubtedly be so when coding factors from the interview responses, where interpretation and analysis of respondent's replies are subject to question and construal. It will be evident from the work so far that the researcher has developed a strong propensity to reflect carefully and critically upon the issues under discussion. Whilst this does not, of itself, guarantee elimination of bias, or ensure the quality and validity of the study, its data and findings, it is suggested that it provides a strong and solid foundation for so doing, (these are familiar problems with almost all social research and this has been factored into the approach adopted and has also led to extreme caution in the over interpretation of data and claims made in the analytical phase). Moreover, as argued earlier in this chapter, use of a variety of methods and the element of triangulation that this affords enables the researcher to present the findings with an added degree of confidence.

4.3.2. Issues Arising from the Questionnaires

An area where possible flaws and distortions may have arisen from the methods used relates to "non-respondents", especially in the context of the questionnaire. This highlights a general problem of gaining access to potential respondents who may remain elusive to the researcher. It is obvious from invitations to complete the survey

and participate in the research that some staff were unwilling to complete the questionnaire. The researcher was also conscious that this reluctance whilst spread across all local authority areas did appear to be more prevalent in particular areas where response rates were very poor per capita of the population. It can only be speculation why this reluctance to respond might have occurred, but the increases in workload and paper work for staff in schools over the last few years could be suggested as a contributory reason for this non-response. Other factors could relate more closely to the content of the research topic with staff not fully engaged with the need for further research into the subject matter or even, more seriously, trying to relinquish their responsibilities for children's learning difficulties. Could it be that this points to a high degree of scepticism at the 'front line' operational level in some areas?

The methods used in the present study have enabled a rich body of data to emerge, nevertheless it is acknowledged that it is not possible to gain access in interviews and survey work to some members of 'front line' staff who do not have an interest in the subject matter.

The present study does penetrate well below the surface of the subject matter, but equally it is evident from the investigation that questionnaires as a methodology for research do in themselves have limitations such as those already described. This is a matter yet to be satisfactorily addressed by social science researchers, and there continues to be scope to develop more imaginative approaches to data collection in future research.

4.4. Ethics

Research investigations are associated with progress, discovery and improvement in our understanding of a problem, but in order to be acceptable any research needs to be ethical, to promote standards of behaviour and practical procedures. According to Wallen and Fraenkel (2000) the basic question to ask is,

“Will any physical or psychological harm come to anyone as a result of my research?” (p.22)

The issue of ethical research then refers to the question of 'right' and 'wrong', it is a moral issue. The Oxford dictionary defines ethical behaviour as:

“The moral principles or system of a particular leader or school of thought; the moral principles by which any particular person is guided; the rules of conduct recognised in a particular profession or area of human life”

Therefore, it could be argued that what is ethical research is that which is agreed by the professional bodies involved within that area. Ethical concerns can be extremely complex and subtle, creating for the researcher a dilemma between the 'search for truth' and the rights and values of their participants. This is described by Frankfort-Nachmias and Nachmias (1992) (in Cohen et al., 2000) as the “*cost/benefits ratio*” and by MacNaughton et al. (2001) as the “*risk/benefit equation*” .

“In planning for their proposed research social scientists have to consider the likely social benefit of their endeavours against the personal costs to the individuals taking part”

(Frankfort-Nachmias and Nachmias [1992] in Cohen et al. 2000. p.50)

Green (2000) describes ethical research as about doing,

“ what is right according to the majority, linking our personal values, standards of behaviour and conscience to our action” (p.70)

Wallen and Fraenkel (2000) discuss ethical research under three headings, firstly the protection of participants from harm, secondly the confidentiality of stored data and finally the “*knowing deception*” of research subjects.

4.5.1. Protecting Participants from Harm

Protecting participants from harm is arguably the most important of these. This will involve the consent of any participants to the research at any level to ensure that they are aware of any potential risks involved. If any risks are identified these need either

to be eliminated or assessed and contained. The sort of risk involved in educational research according to Green (2000), does not usually involve physical harm, but may pose a risk to employment, self-esteem or to psychological and professional standing, ranging from temporary worry to longer lasting emotional disturbance, upsetting the work-place relationships and security of employment. The participants can therefore feel threatened by the sustained research scrutiny. The researcher needs to be aware of the inequalities of power involved in some employment situations, which may prevent some staff refusing involvement (Green 2000).

Walsh (2001) recommends that the official permission to carry out research needs to be sought at an early stage in the research planning, either in person or in writing, but will be largely dependent upon the good will and co-operation of the subjects, and that good will must never be taken for granted. The key to this, according to Cohen et al.(2000), is close and careful planning with the aims of the research clear in the minds of both the researcher and the participants, only then will they be clear as to the demands likely to be placed upon them.

4.5.2. Confidentiality

In order to protect respondents all data, once collected, needs to be kept secure to ensure that no one else has access to this information, and any codes or keys to the records need to be kept separate from the data. Wallen and Fraenkel (2000) contend that not even the researcher should be able to link the data to a particular subject, so all data needs to be collected anonymously and participants in the research ensured that all information will be kept safe and in confidence. Further to this, any reports, articles or conference papers, which occur after the conduct of the research, should not contain identifying material.

No part of the study should be sold or reused by other people, for other research or non-research purposes, without consent, Walsh (2001). However, there does need to be a balance between this ideal and the public “right to know”.

4.5.3. Deception

This is often the most difficult issue to resolve, and according to Wallen and Fraenkel (2000), highlights the importance of informed consent and an understanding that their participation is voluntary and that they have the right to refuse to participate. It is therefore vital that all the participants have all the information and facts about the research prior to participation to enable them to make such an informed decision which Cohen et al. (2000) describes as “*informed refusal*” (p.51). It could be argued that it is impossible to inform subjects of everything, for example the statistical treatment of the data. Cohen et al. (2000) say that in these circumstances a strategy of “*reasonably informed consent*” (p.51), needs to be applied, in which the participants are aware that the information they receive may be a close estimation on the part of the researcher, and that any inquiries concerning the research will be answered honestly and to the best knowledge of the researcher at that time. The participant needs to be made aware that s/he is free to withdraw at any time. Such comprehension must depend upon the educational level of the participants’ intelligence and literacy capability. When educational research involves children the issue of informed consent becomes more complex, and will involve issues of parents, advocacy and ‘*in loco parentis*’.

- *“Wherever possible the researcher should conduct the study using methods that do not require deception.*
- *If alternative methods cannot be devised, the researcher must determine whether the use of deception is justified by the prospective study’s scientific, educational or applied value.*
- *If the participants are deceived the researcher must ensure the participants are provided with sufficient explanations as soon as possible.”*

(Wallen and Fraenkel. 2000. p. 25)

Cohen et al. (2000) suggests that a further issue to consider may be the potential damage to the scientific community of such deception.

It follows that if a subject is deceived as part of the research they cannot give informed consent since they have not been made aware of the consequences of their participation.

4.5.4. Cultural Issues

Cultural differences may lead to misunderstandings and according to MacNaughton (2001) the subject may misunderstand because of language differences or other cultural issues. Subjects must be informed about the research in a language that they understand. MacNaughton (2001), states that it is easy and dangerous to underestimate the concerns of participants whose culture and language is different from that of the researcher.

4.5.5. Ethics in the Context of this Research

All the participants in this research had the basic right to privacy, and were fully informed about what was involved in participating in the research investigation. Only when each participant felt secure in the knowledge that the material that they gave to the researcher would not be detrimental to their career and work life did they feel confident to offer an honest reply to the questions on the interview schedule and the questionnaire. All of the participants in this research were willing volunteers, and had the option to withdraw from the investigation at any point if they wished. It may be noted that on the questionnaire a small number of questions were not answered by some participants, who were perhaps exercising their right to pull out, or avoid potentially sensitive areas. Approximately 6% of the sample exercised their right to return their questionnaire written in the medium of Welsh.

Although the identity of all participants, individuals and schools, remained confidential, coding on the questionnaires allowed the researcher to identify the local authority for which they worked. Data was gathered painstakingly and meticulously,

with findings reported honestly and any problems or distortions acknowledged. All information gathered was stored securely in accordance with the Data Protection Act 1998.

“.....the only safe way to avoid violating principles of professional ethics is to refrain from doing social research altogether”

(Bronfenbrenner, 1952, p.453)

The researcher has taken steps to ensure that the intentions of the research were clear and unequivocal to respondents, written in jargon-free language, to show what is being studied, and how it will be used. The intention being to reassure the participants that their replies will be taken seriously, but will not in any way compromise themselves or the authority for which they worked. All participants had the opportunity to include their own views, issues and questions. The hope is that the completed research will eventually be of benefit to the children and schools of Wales by furthering knowledge in the area of dyslexia research and highlighting gaps within the present policy system.

4.6. Conclusion

To conclude this section, it may be seen that research involves responsibility, a researcher has a responsibility to everyone taking part in the study, to act truthfully and with integrity, acknowledging that what may be acceptable to one individual may be of a sensitive and difficult nature for another. Every participant has rights, however large or small their contribution or involvement might be and they have the right to trust that their contribution will be portrayed fairly and accurately, but trust must be earned and cannot be taken for granted. It must be remembered that the distinction between ethical research and unethical research is not dichotomous and that such judgements lie on a continuum. This ranges from totally ethical to clearly unethical (Cohen et al. 2000). Ethical principles are not absolute and need to be interpreted in the light of the research context.

Chapter 5

Survey of Teachers and Educational Psychologists in Wales:

Attitudes towards Dyslexia

“Reading maketh a full man; conference a ready man; and writing an exact man” [Ib] Francis Bacon 1561-1626

5.1. Methodology

- 5.1.1. Data Collection Method
- 5.1.2. Selection of sample
- 5.1.3. Format of questionnaires
- 5.1.4. Response Rates
- 5.1.5. Analysis Employed

5.2. Data Collection Presentation

- 5.2.1. Demographic questions
- 5.2.2. Process Questions
- 5.2.3. Information Questions
- 5.2.4. Testing Questions
- 5.2.5. Definition Questions

5.3. Conclusion

Introduction

Estimates of the prevalence of dyslexia are susceptible to definitional manipulations over a wide range. In the absence of an agreed definition, all statements about prevalence could be described as guesses, or at the very best, value judgements. All the same, diagnoses for individual children are made in our schools every day and although possibly contentious, have a major impact upon the individual in terms of

support, provision and life choices. If a reliable estimate of prevalence of dyslexia, in the general population could be achieved then individual schools should not expect to find the same rate among their pupils; nor is it likely that the rate would remain stable across place, time and first-language status. Nevertheless, the following results from the research questionnaire do ask individual schools to estimate the prevalence of children with dyslexia or dyslexic tendencies, within them. In one respect, their definition of the condition is not relevant to this estimate, as the research seeks to estimate the numbers of children that the schools are referring for their definition of dyslexia, or the definition as imposed by the local education authority, whatever that concept of the condition may be.

5.1. Methodology

5.1.1. Data Collection Method

In May 2002, an anonymous mail questionnaire (See Appendix One) was distributed to 1,500 schools and educational psychologists throughout Wales, representing each of the twenty-two local education authorities, on a representative, random selection sample. The sample was selected from the Schools Year Book 2002, to limit any factors of bias. The mail questionnaire was suited to the sample that was expected to be of reasonable educational and literacy backgrounds. A clear covering letter, on Chester College headed notepaper was enclosed with each questionnaire detailing the purpose of the survey and ensuring anonymity. The questionnaire and the covering letter were both translated into the Welsh language, and each member of the sample received them bilingually. Stamped addressed return envelopes were enclosed with each questionnaire. Each returned questionnaire was allocated a serial number as they were returned amounting to 194 returns or 12.93% of the sample. Serial numbers ran consecutively from 1-194.

5.1.2. Selection of Sample

The research population included all the schools in Wales, from Key Stage 1 to Key Stage 4, and educational psychologists involved with the identification and referral process for children who are dyslexic in Wales. A process of quota sampling was used for inclusion into the research ensuring that an appropriate quota from each of the

twenty-two local education authorities was included, proportionate to the number of schools within that authority. Thus, more schools were selected from larger and more highly populated authorities such as Cardiff and Swansea and fewer schools from smaller or less densely populated areas such as Rhondda Cynon Taff and Torfaen.

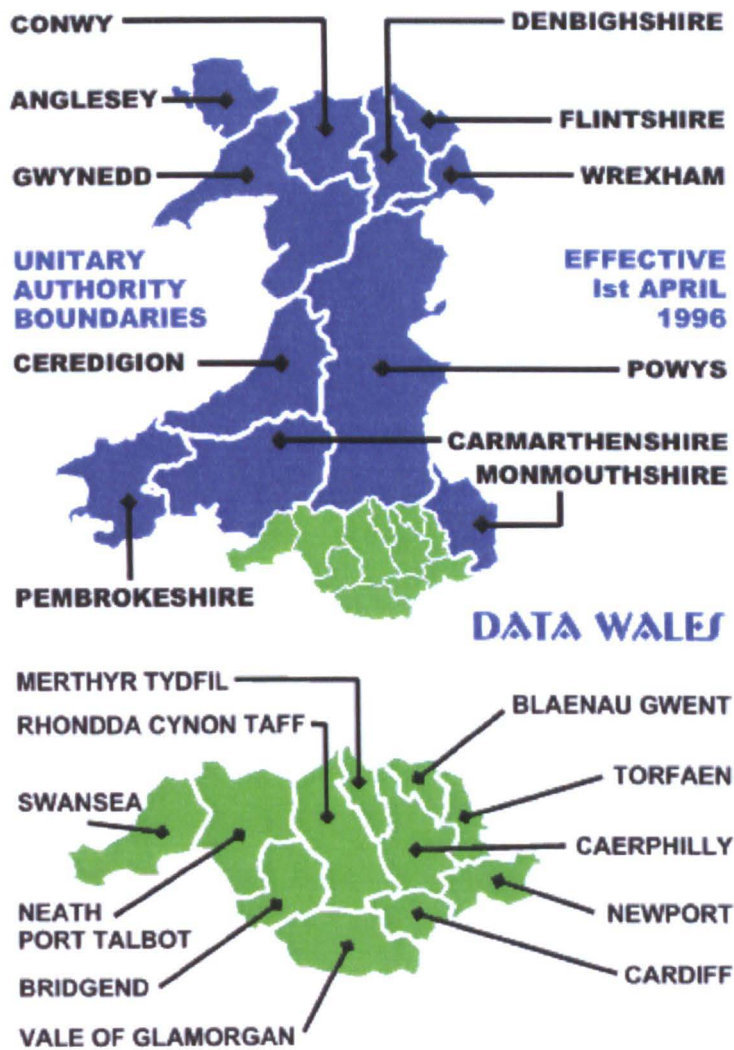


Fig 5.1

The school sample was selected from the Education Authorities Directory and Annual 2000. The sample of educational psychologists was selected from The Register of Chartered Psychologists 1998/9. One thousand questionnaires were distributed in the first instance. After a rather disappointing initial response rate a further five hundred follow up questionnaires were distributed six months later to a new quota based sample. Each questionnaire was accompanied by a letter of explanation; allowing the potential respondents to know how the research would be used, and what would be required of them. This letter also assured all potential

respondents of the anonymity of their responses (see Appendix One). Each questionnaire and accompanying letter was translated into Welsh and respondents could choose to reply in their first language.

5.1.3. Format of Questionnaires

The questionnaire consisted of thirty questions (see Appendix One). Twenty-one questions were of a checklist format and nine were open answer questions. The survey started with factual questions, and continued with questions related to the respondent's attitudes and beliefs. All questions were presented bilingually, English and Welsh. The order of the questions was carefully considered and open and closed questions were alternated, to enable qualitative comments.

The survey was undertaken in three parts, the first consisted of ten questionnaires issued in February 2002 as a pilot study to check that the survey was clearly understood by the respondents, to ensure the clarity of the questions, the time taken to complete and any ambiguities or objections to the wording or lay out. The pilot was conducted with schools in the Wrexham area, for ease of return. This allowed for fine tuning of the questions. The second part consisted of 1000 questionnaires dispatched in May 2002. Some questions had been slightly amended to improve the quality of the text following the pilot study, but most of the questions remained the same. The remaining component consisted of 500 further questionnaires to boost the final return rate.

5.1.4. Response Rate

The survey brought 194 returned questionnaires or 12.95% of the sample. A number of the questionnaires were returned uncompleted, where the respondent indicated upon the questionnaire that they felt unable to answer due to pressures of time, or that it was not appropriate to their situation. A number of educational psychologists indicated upon the questionnaire that they had retired, or were no longer working with children in Wales.

Questionnaires were returned with representation from all twenty-two local education authorities within Wales. Questionnaires were coded to identify the local education authorities but not individual's within that local authority. Each Local authority was represented by a minimum of two returns each from Vale of Glamorgan to a maximum of twenty-two returns from Swansea. In terms of percentage of the schools population, the returns from Cardiff exceeded 10% of the total school population whilst Merthyr Tydfil at 2.05% returned the lowest.

The return figures span representatives from Key Stage one to Key Stage four and a group of educational psychologists, all working with the children in Welsh schools. The largest number of returns came from teachers working in key stage two. This could be representative of the numbers of schools within these categories. There are fewer schools catering entirely for children in Key Stage one and three in Wales than of Key Stage two and mixed primary schools.

5.1.5. Analysis Employed

Data was analysed using SPSS for Windows software. Statistical tests employed were chi-squared which enables frequencies to be compared with scores landing in certain categories, to compare the number of times something actually happens (the actual frequency), with the number of times we expect it to happen (the expected frequency). Chi-squared (χ^2) does not however, tell us why something has happened. Chi-squared should not be used for frequencies under 5 (Crocker, 1974). The analysis of variance and the F-ratio were also employed; this can be used to find out whether the difference between two small groups is significant, or whether the two small groups are really drawn from the same population. It enables us to examine several groups at once to see whether they are significantly different or could have been drawn from the same population. If any one of the subgroups differs from the group as a whole, it will be indicated by the size of the value for F . However, at this stage, we would not know which subgroup was the one significantly different nor whether more than one subgroup differed significantly. A 't'-test of significance between each of the various subgroups would then be used to see where the difference lay. The 't' test was also employed and enabled an estimate of the standard error of difference between the means of two samples or two populations (Field, 2000).

5.2. Data Collection Presentation

5.2.1. Demographic Questions

The survey included questions that sought answers to the demography of dyslexic children in Wales and the educational psychologists and specialist units.

1a. Approximately how many referrals for dyslexia do you receive in a year?

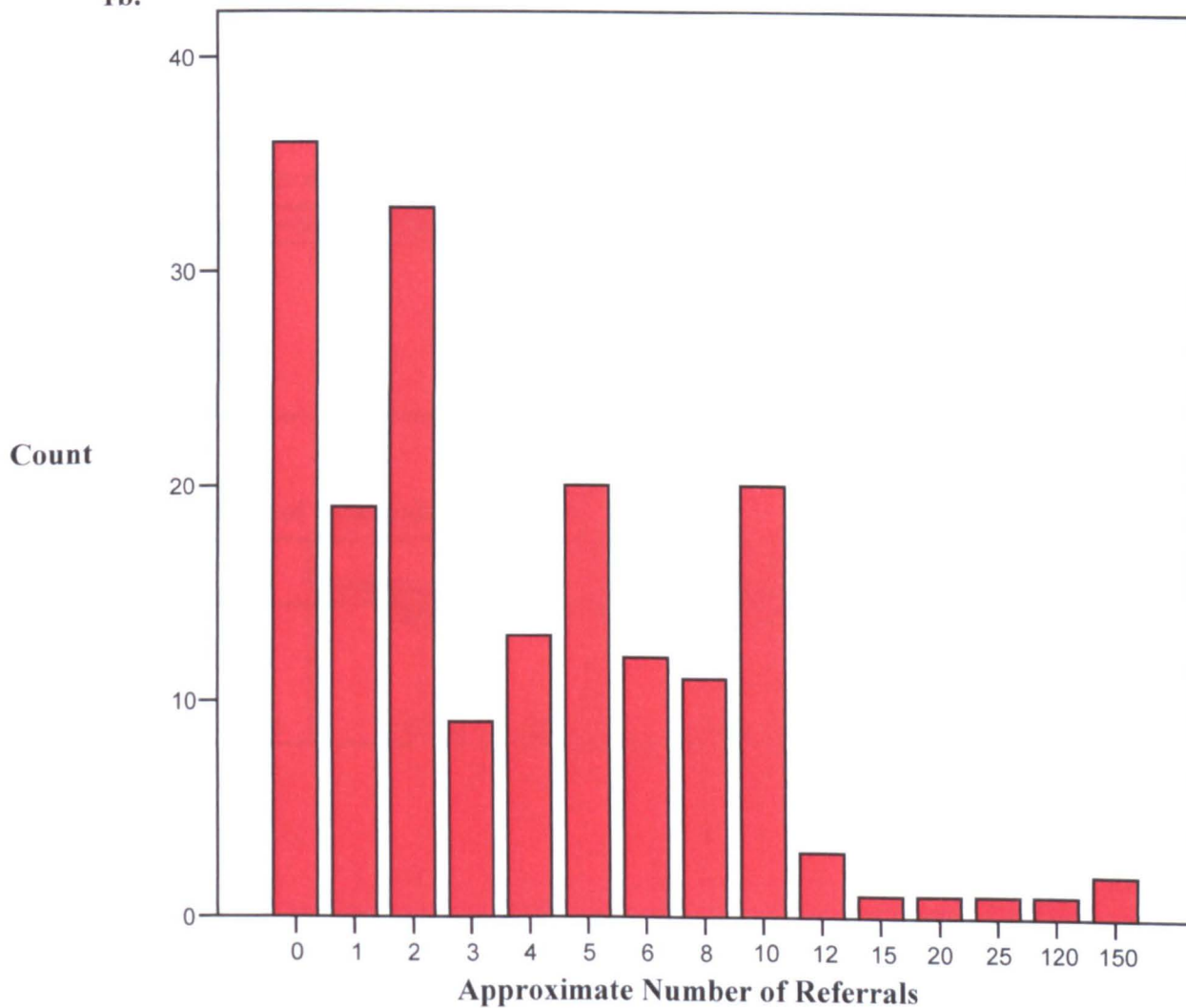
Approximate Number of Referrals

	Observed N	Expected N	Residual
0	38	10.2	27.8
1	19	10.2	8.8
2	33	10.2	22.8
3	9	10.2	-1.2
4	14	10.2	3.8
5	21	10.2	10.8
6	13	10.2	2.8
8	11	10.2	.8
10	21	10.2	10.8
12	4	10.2	-6.2
15	1	10.2	-9.2
20	1	10.2	-9.2
25	1	10.2	-9.2
40	1	10.2	-9.2
50	2	10.2	-8.2
60	1	10.2	-9.2
100	1	10.2	-9.2
120	1	10.2	-9.2
150	2	10.2	-8.2
Total	194		

Approximate Number of Referrals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	36	19.8	19.8	19.8
	1	19	10.4	10.4	30.2
	2	33	18.1	18.1	48.4
	3	9	4.9	4.9	53.3
	4	13	7.1	7.1	60.4
	5	20	11.0	11.0	71.4
	6	12	6.6	6.6	78.0
	8	11	6.0	6.0	84.1
	10	20	11.0	11.0	95.1
	12	3	1.6	1.6	96.7
	15	1	.5	.5	97.3
	20	1	.5	.5	97.8
	25	1	.5	.5	98.4
	120	1	.5	.5	98.9
	150	2	1.1	1.1	100.0
Total		182	100.0	100.0	

1b.



1c.

This base figure may be distorted and needs to be separated between schools, educational psychologists and specialist units, because the number of referrals from educational psychologists and specialist units, who are working with much larger numbers of dyslexic children on a regular basis, is higher than for non-specialist units and SENCO's in state schools. The population of children that they work with is likely to reflect the number of diagnosed dyslexic children in their local community. Referrals for schools in the study were as high as twelve in the previous year to as low as nil. Educational psychologists reported referrals as high as sixty and as low as nil. Nil returns accounted for 18.56% of the returns.

2a Approximately what percentage of these referrals comes from:

- LEA**
- School**
- Parents**
- Other?**

Percentage of Referrals from LEA

	Observed N	Expected N	Residual
0	190	48.5	141.5
5	1	48.5	-47.5
10	2	48.5	-46.5
100	1	48.5	-47.5
Total	194		

Percentage of Referrals from LEA

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	180	98.9	98.9	98.9
5	1	.5	.5	99.5
10	1	.5	.5	100.0
Total	182	100.0	100.0	

Percentage of Referrals from School

	Observed N	Expected N	Residual
0	47	10.8	36.2
5	1	10.8	-9.8
10	7	10.8	-3.8
20	5	10.8	-5.8
25	5	10.8	-5.8
33	3	10.8	-7.8
40	4	10.8	-6.8
50	47	10.8	36.2
60	4	10.8	-6.8
70	2	10.8	-8.8
75	2	10.8	-8.8
80	10	10.8	-.8
85	1	10.8	-9.8
88	1	10.8	-9.8
90	6	10.8	-4.8
95	1	10.8	-9.8
99	2	10.8	-8.8
100	46	10.8	35.2
Total	194		

Percentage of Referrals from School

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	45	24.7	24.7	24.7
10	7	3.8	3.8	28.6
20	5	2.7	2.7	31.3
25	5	2.7	2.7	34.1
33	3	1.6	1.6	35.7
40	3	1.6	1.6	37.4
50	42	23.1	23.1	60.4
60	4	2.2	2.2	62.6
70	2	1.1	1.1	63.7
75	2	1.1	1.1	64.8
80	9	4.9	4.9	69.8
90	6	3.3	3.3	73.1
95	1	.5	.5	73.6
99	2	1.1	1.1	74.7
100	46	25.3	25.3	100.0
Total	182	100.0	100.0	

Percentage of Referrals from

	Observed N	Expected N	Residual
0	86	10.2	75.8
1	2	10.2	-8.2
2	1	10.2	-9.2
5	1	10.2	-9.2
10	8	10.2	-2.2
15	2	10.2	-8.2
20	10	10.2	-.2
25	2	10.2	-8.2
30	2	10.2	-8.2
40	4	10.2	-6.2
50	47	10.2	36.8
60	2	10.2	-8.2
66	2	10.2	-8.2
67	1	10.2	-9.2
70	1	10.2	-9.2
75	5	10.2	-5.2
80	6	10.2	-4.2
90	6	10.2	-4.2
100	6	10.2	-4.2
Total	194		

Percentage of Referrals from Parents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	82	45.1	45.1	45.1
1	2	1.1	1.1	46.2
5	1	.5	.5	46.7
10	8	4.4	4.4	51.1
15	1	.5	.5	51.6
20	9	4.9	4.9	56.6
25	2	1.1	1.1	57.7
30	2	1.1	1.1	58.8
40	3	1.6	1.6	60.4
50	43	23.6	23.6	84.1
60	2	1.1	1.1	85.2
66	2	1.1	1.1	86.3
67	1	.5	.5	86.8
70	1	.5	.5	87.4
75	5	2.7	2.7	90.1
80	6	3.3	3.3	93.4
90	6	3.3	3.3	96.7
100	6	3.3	3.3	100.0
Total	182	100.0	100.0	

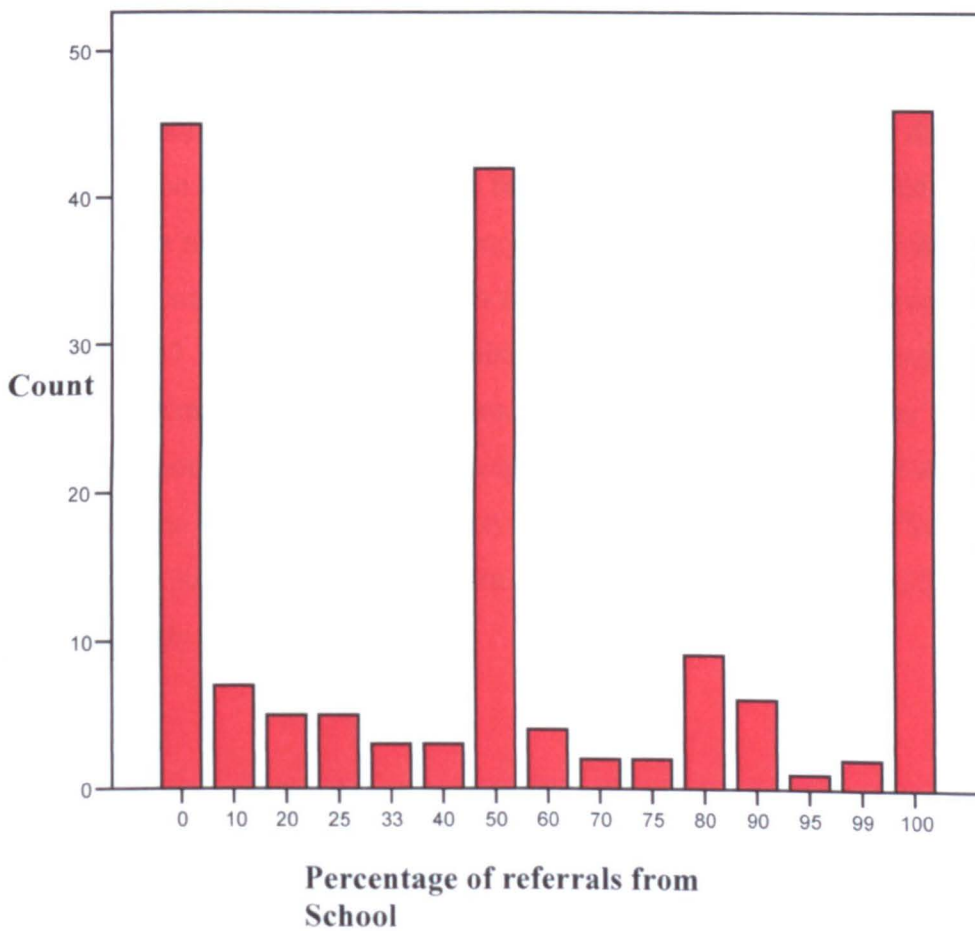
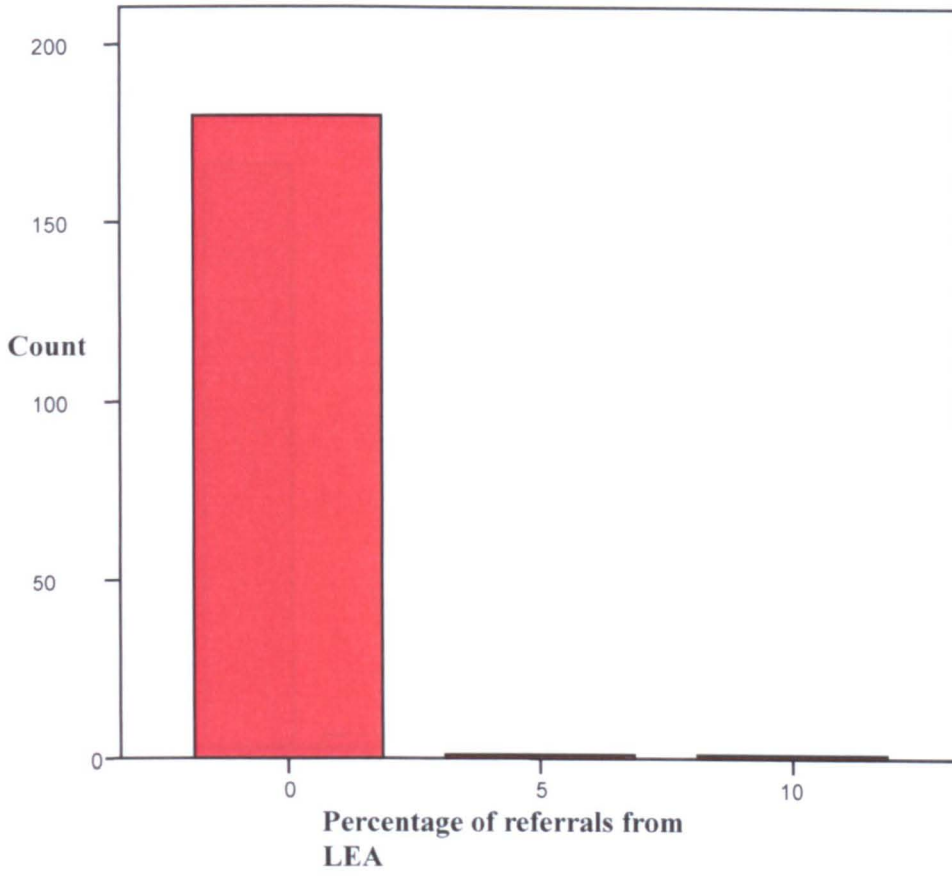
Percentage of Referrals from Other

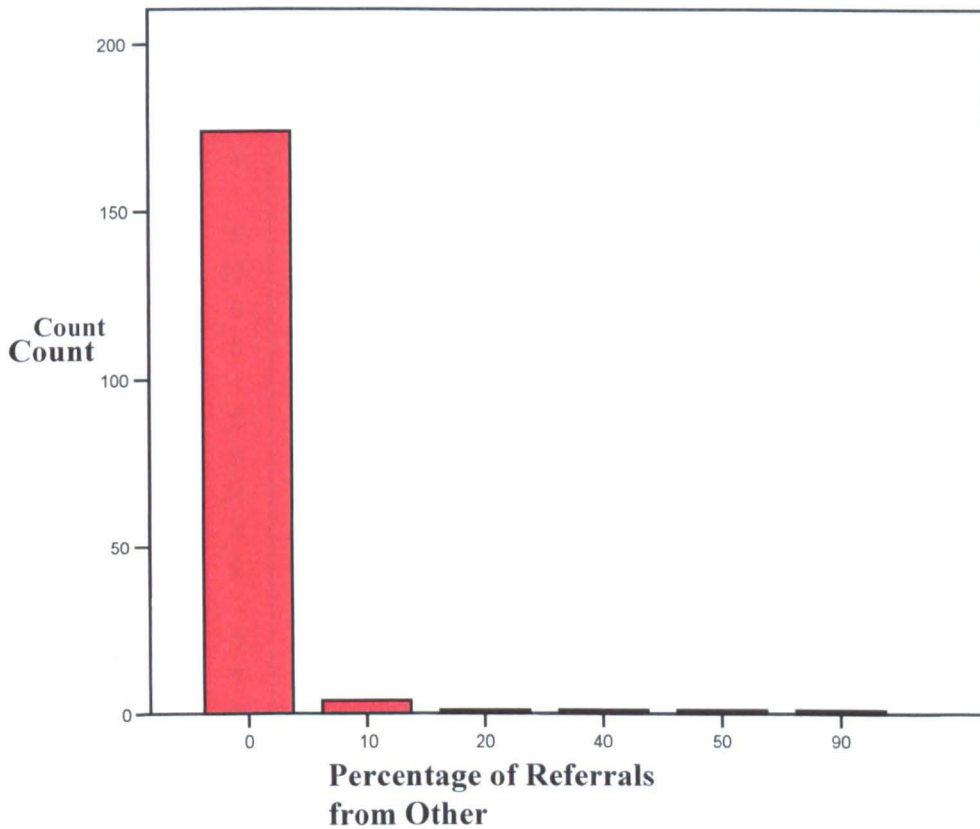
	Observed N	Expected N	Residual
0	184	32.3	151.7
1	4	32.3	-28.3
20	2	32.3	30.3
40	1	32.3	-31.3
50	2	32.3	-30.3
90	1	32.3	-31.3
Total	194		

Percentage of Referrals from Other

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	174	95.6	95.6	95.6
10	4	2.2	2.2	97.8
20	1	.5	.5	98.4
40	1	.5	.5	98.9
50	1	.5	.5	99.5
90	1	.5	.5	100.0
Total	182	100.0	100.0	

2b.





2c.

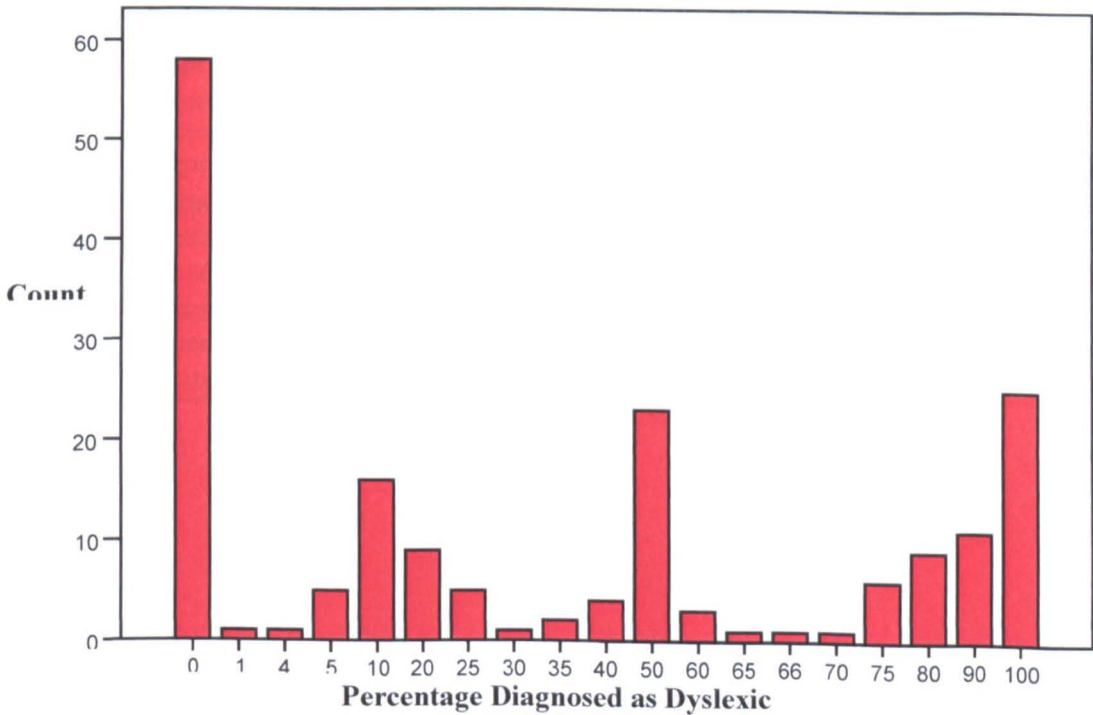
The percentage of referrals from the local education authority was extremely small and not significant. Most referrals for dyslexia came from the schools. This showed to be the case for referrals both to the educational psychologists and to the schools own referral systems. In forty-six returns, the percentage of the referrals from the schools was 100% that is 23.7% of the sample. Referrals from parents peaked at 24.2% in 47 of the returns. Results from schools and educational psychologists showed a remarkably similar pattern. Referrals from other sources were extremely small, and not significant at 5.2% respondents were not asked to detail the origins of these sources. It appeared more likely that other sources were used for referral by the educational psychologists more often than the schools, but no significance could be attached to this.

3a. Approximately what percentage of children referred for reading and learning difficulties are diagnosed to be dyslexic on the basis of your assessment?

Percentage Diagnosed as Dyslexic

	Observed N	Expected N	Residual
0	60	9.7	50.3
1	1	9.7	-8.7
4	1	9.7	-8.7
5	5	9.7	-4.7
10	16	9.7	6.3
20	9	9.7	-.7
25	6	9.7	-3.7
30	1	9.7	-8.7
35	2	9.7	-7.7
40	5	9.7	-4.7
50	24	9.7	14.3
60	3	9.7	-6.7
65	2	9.7	-7.7
66	1	9.7	-8.7
70	1	9.7	-8.7
75	7	9.7	-2.7
80	9	9.7	-.7
90	12	9.7	2.3
95	2	9.7	-7.7
100	27	9.7	17.3
Total	194		

3b.



3c.

The figures detailing the percentage of children referred for reading and learning difficulties diagnosed to be dyslexic, on the basis of their assessments, showed a significant result, and demonstrated that the educational psychologists were more likely to diagnose dyslexia than the schools and SENCOs. 30.9% of the sample claimed that they did not diagnose dyslexia in their school. The question asked for an approximation, and the percentages quoted peaked at 50% and 100%. A greater number of respondents replied 50% or less, than 50-100%, there may be an element of caution in their estimations.

4a. What definition of the term dyslexia do you use when making your diagnosis?

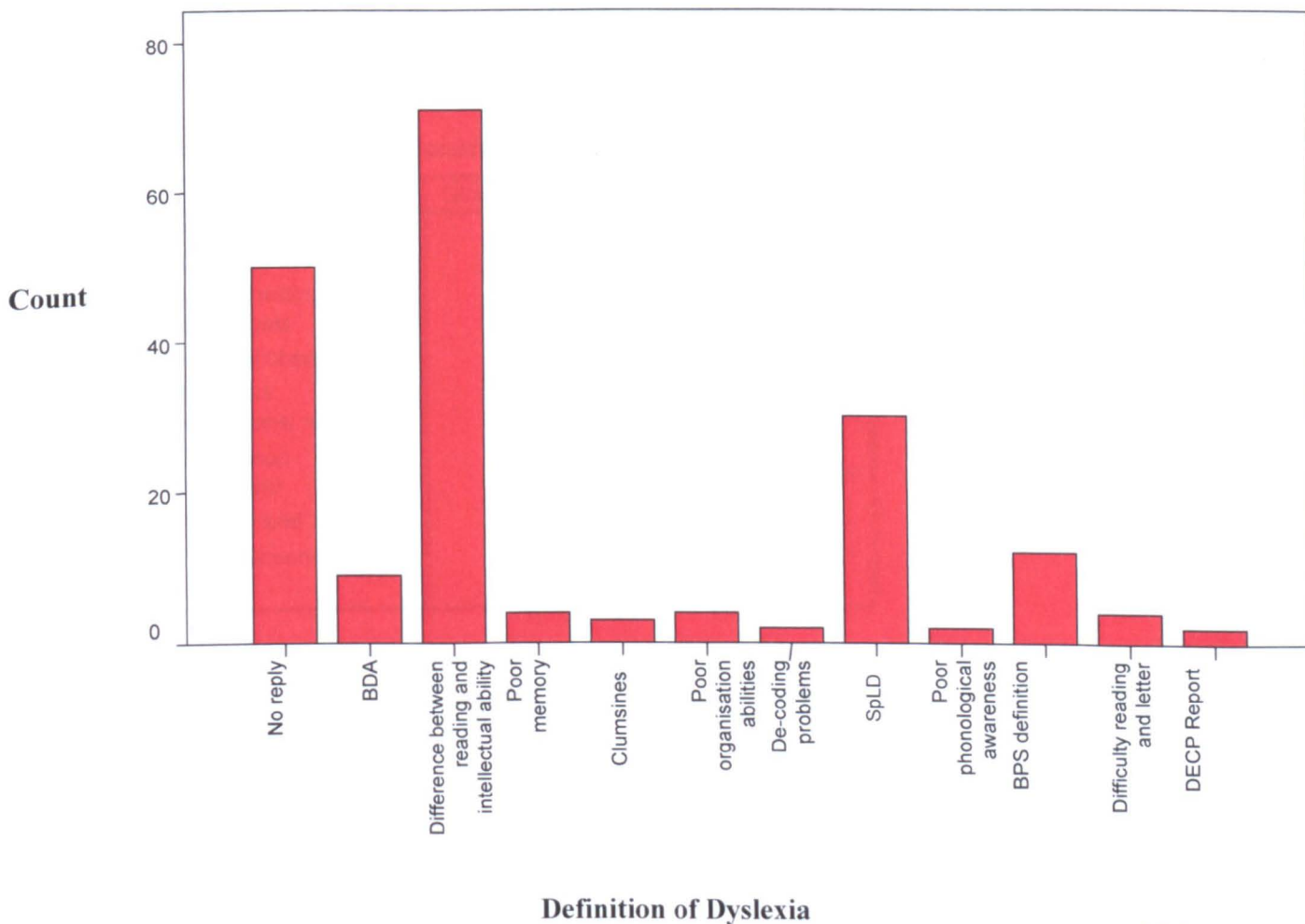
Definition of Dyslexia

	Observed N	Expected N	Residual
No reply	50	14.9	35.1
BDA	9	14.9	-5.9
Difference between reading and intellectual ability	71	14.9	56.1
Poor memory	4	14.9	-10.9
Clumsiness	3	14.9	-11.9
Poor organizational abilities	4	14.9	-10.9
de-coding problems	2	14.9	-12.9
SpLD	30	14.9	15.1
Poor Phonological awareness	2	14.9	-12.9
BPS definition	12	14.9	-2.9
Difficulty reading and letter recognition	4	14.9	-10.9
DECP Report	2	14.9	-12.9
BPS and visual/visual memory	1	14.9	-13.9
Total	194		

Definition of Dyslexia

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No reply	50	27.5	27.5	27.5
BDA	8	4.4	4.4	31.9
Difference between reading and intellectual ability	67	36.8	36.8	68.7
Poor memory	4	2.2	2.2	70.9
Clumsiness	3	1.6	1.6	72.5
Poor organizational abilities	4	2.2	2.2	74.7
de-coding problems	2	1.1	1.1	75.8
SpLD	30	16.5	16.5	92.3
Poor Phonological awareness	2	1.1	1.1	93.4
BPS definition	8	4.4	4.4	97.8
Difficulty reading and letter recognition	4	2.2	2.2	100.0
Total	182	100.0	100.0	

4b.



4c.

It was apparent from the respondents that there was a clearer definition of the term dyslexia from the educational psychologists, than there was from the schools. In total, the number of definitions varied widely, with thirteen different and distinct definitions given. This question showed to be highly significant, and there was less than 5% chance that this distribution occurred by chance alone. A large number of returnees, 25.77% of the sample, gave no reply to this question. 36.6% of the sample sited the deficit between reading and intellectual ability, as the main definition of the term dyslexia.

Either this question was not clearly understood, or a large number of the respondents do not have a clear concept of what dyslexia really is. This may account for 7.7% of the respondents accepting the definition as described by the British Dyslexia Association or the British Psychological Society, with a general description of Specific Learning Difficulty.

5a . What, in your opinion, is a 'full' assessment for dyslexia?

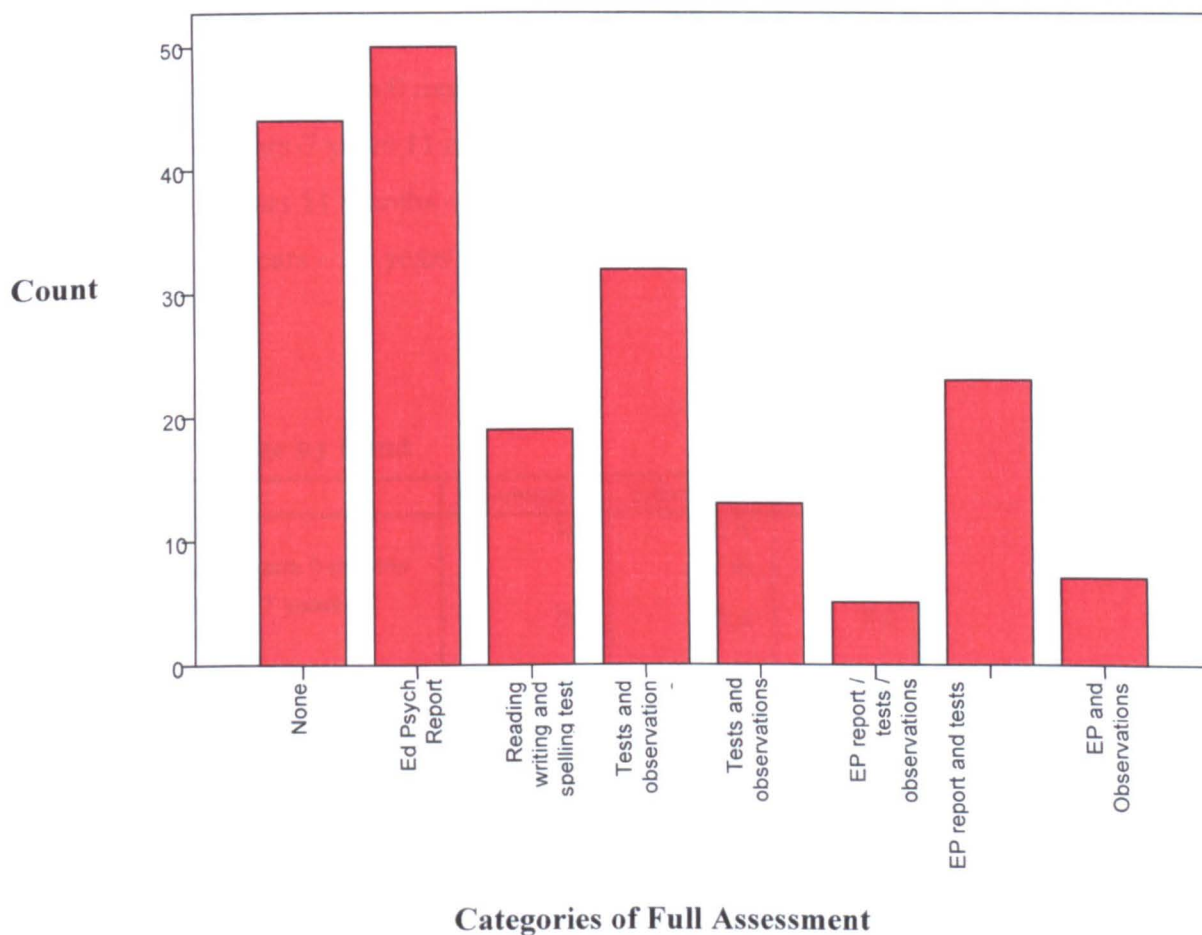
Categories of Full Assessment

	Observed N	Expected N	Residual
None	44	24.3	19.8
Ed Psych Report	50	24.3	25.8
Reading, writing and spelling tests	19	24.3	-5.3
Tests and observations	32	24.3	7.8
E.P. report/ observations/ tests	14	24.3	-10.3
Multi-sensori assessment	5	24.3	-19.3
EP report and Tests	23	24.3	-1.3
EP and Observations	7	24.3	-17.3
Total	194		

Categories of Full Assessment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	41	22.5	22.5	22.5
	Ed Psych Report	47	25.8	25.8	48.4
	Reading, writing and spelling tests	18	9.9	9.9	58.2
	Tests and observations	32	17.6	17.6	75.8
	E.P. report/ observations/ tests	13	7.1	7.1	83.0
	Multi-sensori assessment	4	2.2	2.2	85.2
	EP report and Tests	20	11.0	11.0	96.2
	EP and Observations	7	3.8	3.8	100.0
	Total	182	100.0	100.0	

5b.



5c.

Unlike the previous question, there is a closer agreement between the educational psychologists and the schools in this question. Results show that there is a clear significance that this pattern could not have been achieved by chance alone. The highest percentage, over 25%, takes into account the educational psychologists report. The categories selected by the respondents were all complex categories with more than one method of assessment, building up to the full assessment, with a heavy reliance upon the educational psychologists report. The educational psychologists report appears in four of the criteria that are more than double the stated expected number. The number of respondents quoting the educational psychologists report as a category on it's own, or in combination with other categories, from those who replied to that question, was 62.67%, demonstrating a very heavy reliance upon the report in their diagnosis.

6a. How old are the majority of children who are referred to you to test for dyslexia?

- Under 5 years 0 months
- 5 years-7 years 11 months
- 8 years 11 months – 11 years
- 12 years – 15 years 11 months

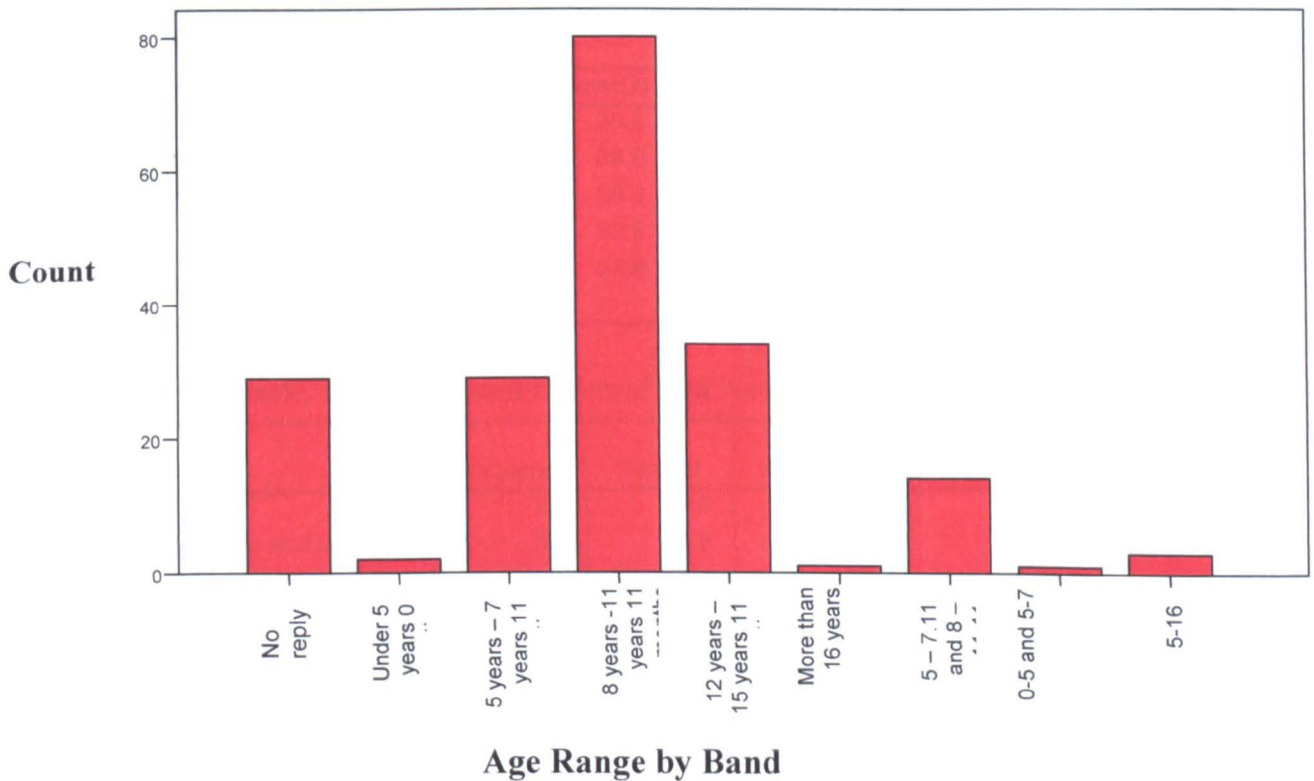
Age Range by Band

	Observed N	Expected N	Residual
No reply	29	21.6	7.4
Under 5 years 0 months	2	21.6	-19.6
5 years to 7 years 11 months	29	21.6	7.4
8 years to 11 years and 11 months	81	21.6	59.4
12 years to 15 years 11 months	34	21.6	12.4
More than 16 years	1	21.6	-20.6
5-7.11 and 8-11	14	21.6	-7.6
0-5 and 5-7	1	21.6	-20.6
5-16	3	21.6	-18.6
Total	194		

Age Range by Band

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No reply	26	14.3	14.3	14.3
Under 5 years 0 months	2	1.1	1.1	15.4
5 years to 7 years 11 months	28	15.4	15.4	30.8
8 years to 11 years 11 months	77	42.3	42.3	73.1
12 years to 15 years 11 months	34	18.7	18.7	91.8
5-7.11 and 8-11	13	7.1	7.1	98.9
0-5 and 5-7	1	.5	.5	99.5
5-16	1	.5	.5	100.0
Total	182	100.0	100.0	

6b.



6c.

The majority of the children referred for testing in this survey come from the 8-11 years age range, 41.8% of the sample. Due to the nature of the subject matter, this may not be surprising when almost 40% of the definitions of dyslexia refer to a reading difficulty or dysfunction. It is unlikely that dyslexia will be diagnosed until there is a noticeable discrepancy between the child's reading and that of his/her peers. It is clear that it is unlikely that this age spread could have been by chance alone.

Few children, in this survey, have their first assessment beyond the age of sixteen years, and of those who responded to this question more than 70% of children have their assessment between the ages of eight and sixteen years. The spread of age groups were similar in this survey between educational psychologists and school assessments.

7a. Approximately how long do children have to wait between referral and assessment?

- Years**
- Months**
- Weeks**

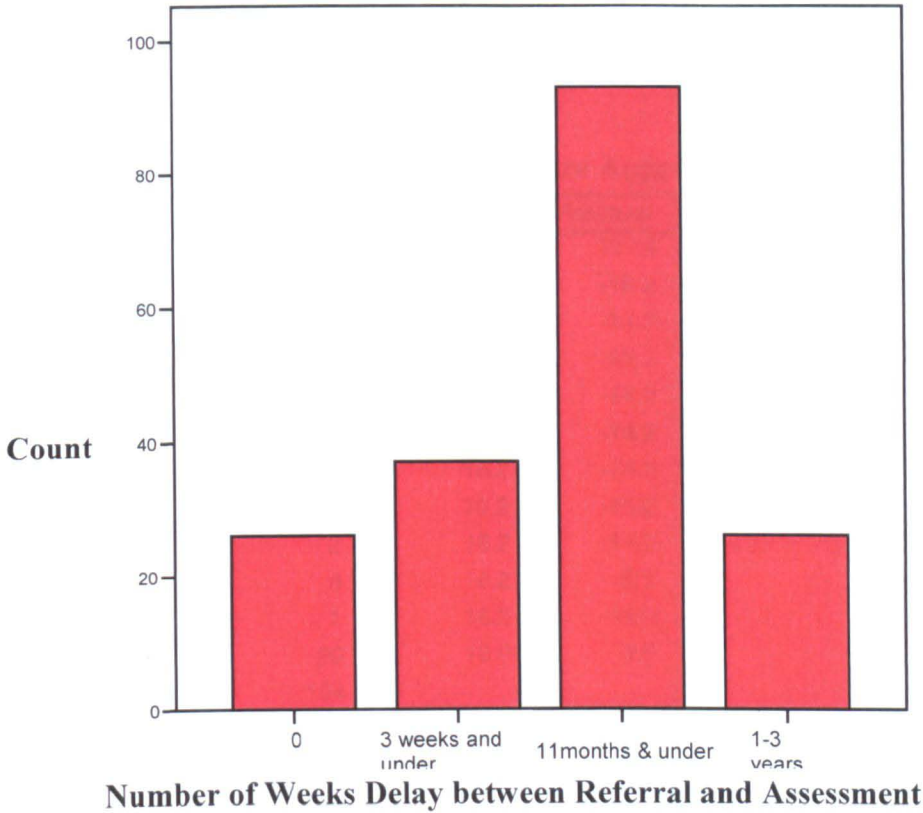
Number of Weeks Delay between Referral and Assessment

	Observed N	Expected N	Residual
no reply	29	38.8	-9.8
3 weeks and under	41	38.8	2.2
11 months and under	97	38.8	58.2
1-3 years	26	38.8	-12.8
6 years	1	38.8	-37.8
Total	194		

Number of Weeks Delay between Referral and Assessment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	26	14.3	14.3	14.3
3 weeks and under	37	20.3	20.3	34.6
11 months and under	93	51.1	51.1	85.7
1-3 years	26	14.3	14.3	100.0
Total	182	100.0	100.0	

7b.



7c.

The number of weeks between referral and assessment appears to be significant, and unlikely to have occurred by chance alone, with almost 50% of the total returns giving a delay of between one month and eleven months. A residual of 58.3 on the expected number and over 13% of the sample suggested a waiting time of between one and three years. Almost 71% of the sample is assessed within one year of the referral. This does, however, leave 13% of the group waiting over a year for assessment; which could significantly affect their educational options and opportunities. To generalise for a moment, in a large heavily populated school population such as Cardiff with a school population of 63175, on the basis of 10% of the children with dyslexia this could be as many as 82 children waiting in Cardiff for in excess of one year for an assessment. If this were to be repeated across the twenty-two local education authorities in Wales this could potentially be as many as 1804 children! Similar waiting times between educational psychologists and schools existed in this sample.

8a. Approximately how frequently does the decision of the educational psychologist go to appeal for granting statements? (The answer as a percentage).

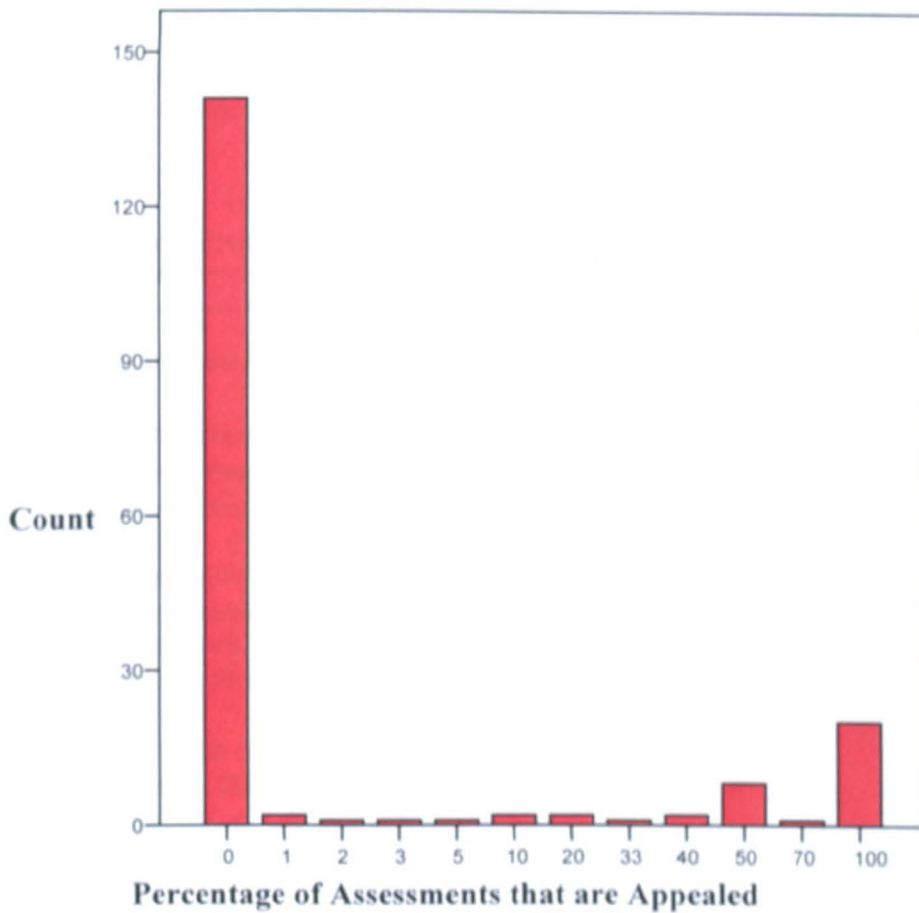
Percentage of Assessments that are Appealed

	Observed N	Expected N	Residual
0	148	16.2	131.8
1	4	16.2	-12.2
2	3	16.2	-13.2
3	1	16.2	-15.2
5	2	16.2	-14.2
10	2	16.2	-14.2
20	2	16.2	-14.2
33	1	16.2	-15.2
40	2	16.2	-14.2
50	8	16.2	-8.2
70	1	16.2	-15.2
100	20	16.2	3.8
Total	194		

Percentage of Assessments that are Appealed

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	141	77.5	77.5	77.5
1	2	1.1	1.1	78.6
2	1	.5	.5	79.1
3	1	.5	.5	79.7
5	1	.5	.5	80.2
10	2	1.1	1.1	81.3
20	2	1.1	1.1	82.4
33	1	.5	.5	83.0
40	2	1.1	1.1	84.1
50	8	4.4	4.4	88.5
70	1	.5	.5	89.0
100	20	11.0	11.0	100.0
Total	182	100.0	100.0	

8b.



8c.

The respondents clearly show that most assessments do not go to appeal, with a nil return coming from 76.3% of the sample. Mean scores show that appeals are more likely if the diagnosis has been undertaken by the school, than by the educational psychologist, (14.49 for the schools to 6.39 for the educational psychologist).

5.2.2. Process Questions

9a. Please give a brief description of your testing process. (Open answer question).

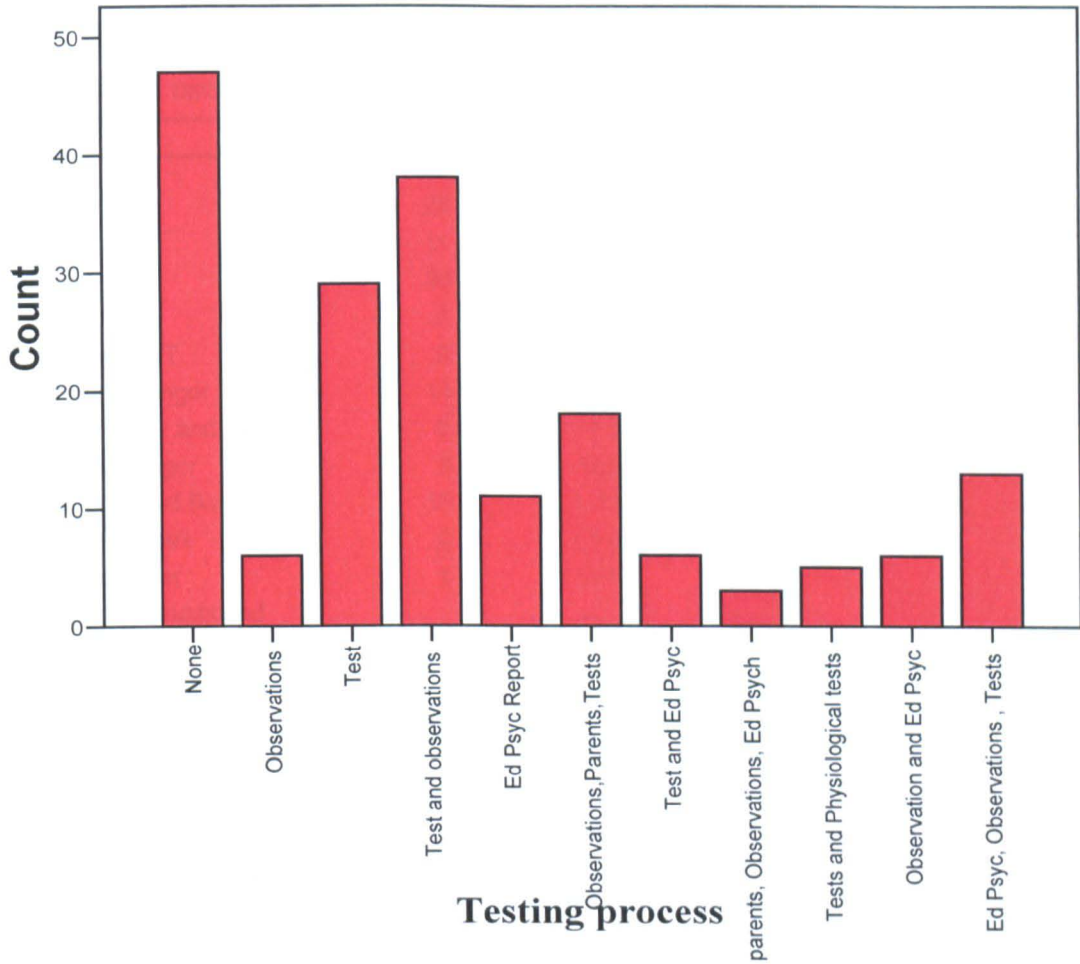
Testing Process

	Observed N	Expected N	Residual
None	51	17.6	33.4
Observations	6	17.6	-11.6
Test	32	17.6	14.4
Test and observations	39	17.6	21.4
Ed Psych Report	11	17.6	-6.6
Observations, Parents, tests	19	17.6	1.4
Test and Ed Psych	6	17.6	-11.6
Tests, parents, Observations, Ed Psych	3	17.6	-14.6
Tests and Physiological tests	5	17.6	-12.6
Observation and Ed Psych	6	17.6	-11.6
Ed Psych, Observations, Tests	16	17.6	-1.6
Total	194		

Testing Process

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	47	25.8	25.8	25.8
Observations	6	3.3	3.3	29.1
Test	29	15.9	15.9	45.1
Test and observations	38	20.9	20.9	65.9
Ed Psych Report	11	6.0	6.0	72.0
Observations, parents, tests	18	9.9	9.9	81.9
Test and Ed Psych	6	3.3	3.3	85.2
Tests, parents, Observations, Ed Psych	3	1.6	1.6	86.8
Tests and physiological tests	5	2.7	2.7	89.6
Observation and Ed Psych	6	3.3	3.3	92.9
Ed Psych, observations, tests	13	7.1	7.1	100.0
Total	182	100.0	100.0	

9b.



9c.

A brief description of the testing process was an open question, and answers were sub-divided into ten broad categories and a nil return. Statistical tests showed there to be no significance between the sub-groups, none differing significantly from the group as a whole. Tests and observations combined appeared to be the most popular cited by 20.1% of the whole sample; a large nil return of 26.29% could be said to distort the picture, and after removing the nil returns from the sample 27.27% of the sample saw the testing process as involving both tests and observations combined. Schools and educational psychologists both returned similar answers to this question. Reliance upon subjective and objective tests alone was returned by 16.49% of the total sample, most of the respondents, however, saw the testing process as a multi-layered process and cited two or more categories as necessary for their assessment.

10a. Please tick the tests for dyslexia you use.
 (Aston, DST, Bangor, Index, Other)

Type of test used to assess dyslexia

	Observed N	Expected N	Residual
None	59	13.9	45.1
Aston	28	13.9	14.1
DST	11	13.9	-2.9
Bangor	36	13.9	22.1
Other	8	13.9	-5.9
Aston and DST	9	13.9	-4.9
Aston and Bangor	14	13.9	.1
Aston, Bangor and Index	2	13.9	-11.9
DST and Bangor	8	13.9	-5.9
Aston DST and Bangor	10	13.9	-3.9
Aston and Index	2	13.9	-11.9
DST and Other	1	13.9	-12.9
DST, Bangor, Index and other	1	13.9	-12.9
Bangor and Other	5	13.9	-8.9
Total	194		

Type of test used to assess dyslexia

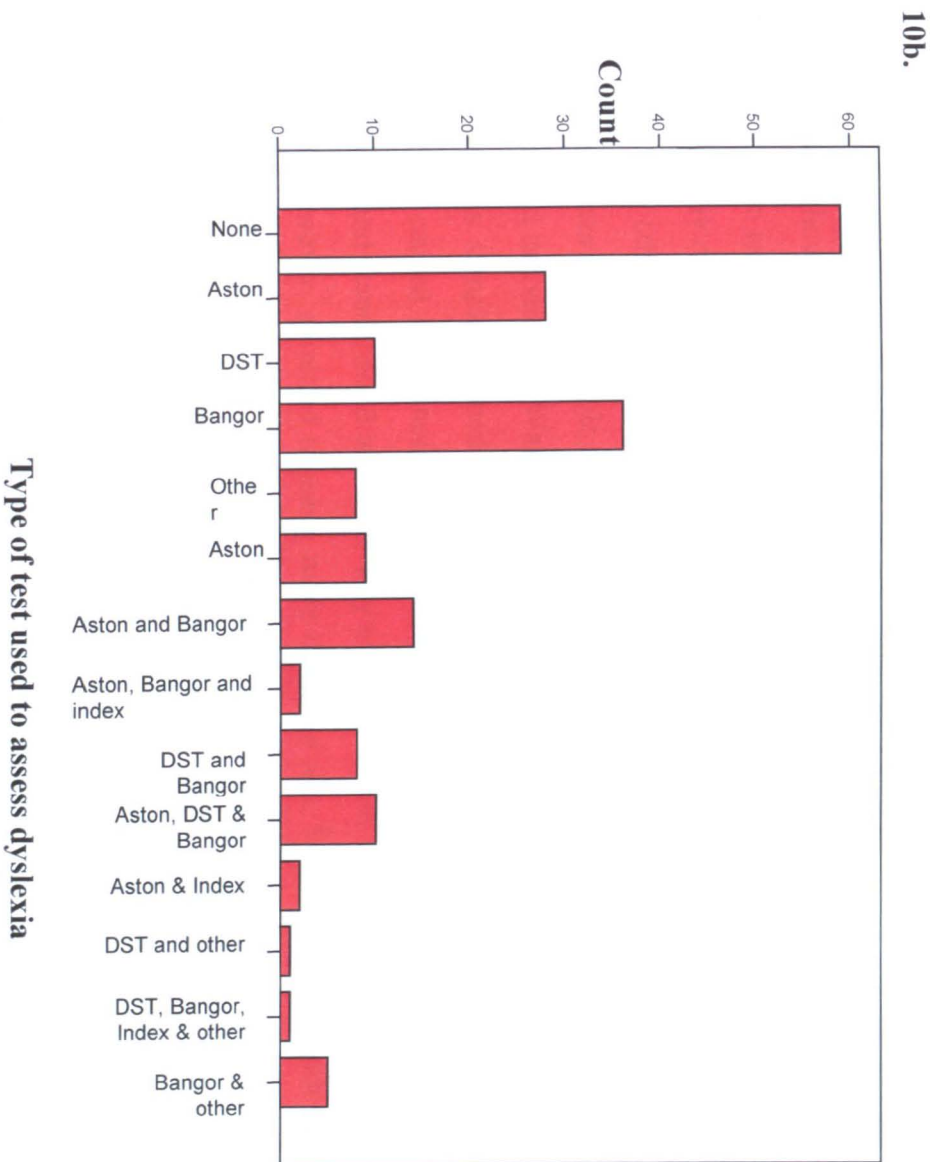
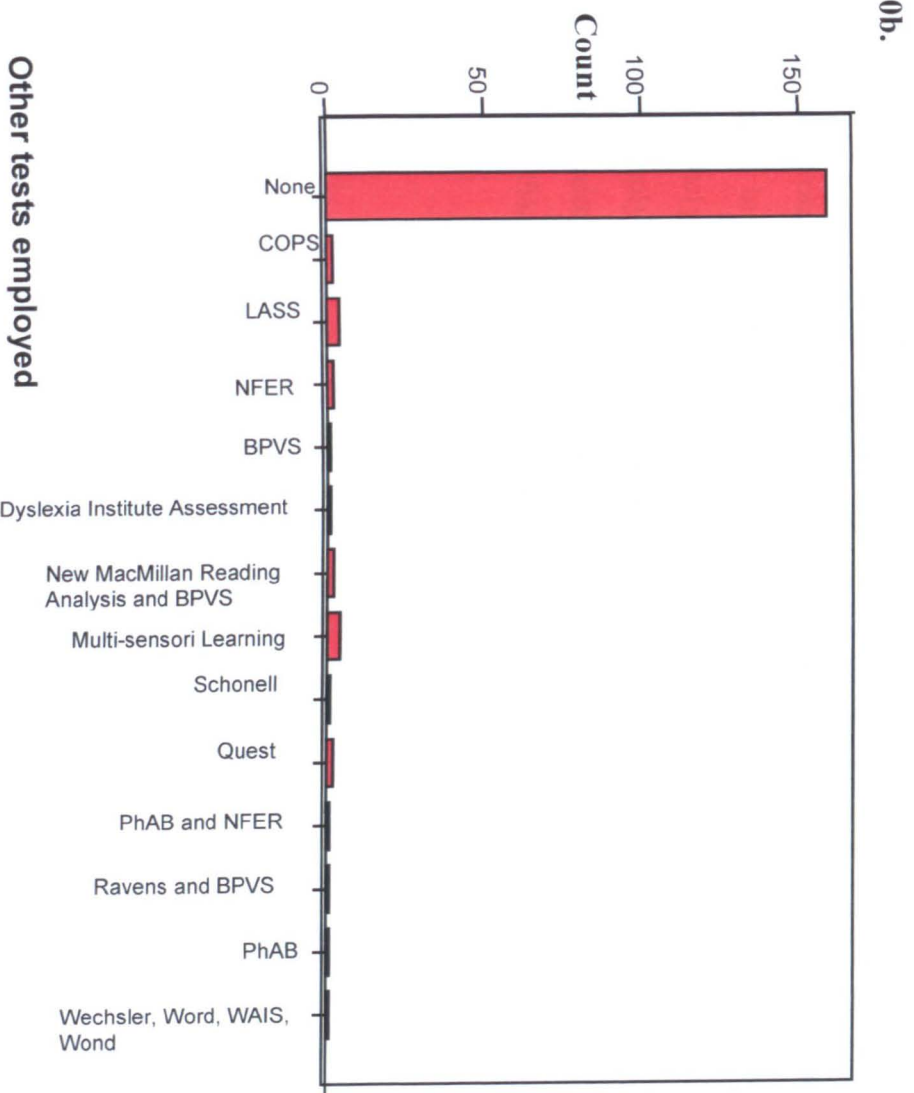
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	56	30.8	30.8	30.8
Aston	28	15.4	15.4	46.2
DST	10	5.5	5.5	51.6
Bangor	36	19.8	19.8	71.4
Other	5	2.7	2.7	74.2
Aston and DST	8	4.4	4.4	78.6
Aston and Bangor	14	7.7	7.7	86.3
Aston, Bangor and Index	2	1.1	1.1	87.4
DST and Bangor	8	4.4	4.4	91.8
Aston DST and Bangor	10	5.5	5.5	97.3
Aston and Index	2	1.1	1.1	98.4
DST and Other	1	.5	.5	98.9
DST, Bangor, Index and other	1	.5	.5	99.5
Bangor and Other	1	.5	.5	100.0
Total	182	100.0	100.0	

Other tests employed

	Observed N	Expected N	Residual
None	164	12.9	151.1
COPS	3	12.9	-9.9
LASS	4	12.9	-8.9
NFER	2	12.9	-10.9
BPVS	1	12.9	-11.9
New MacMillan Reading Analysis and BPVS	1	12.9	-11.9
Dyslexia Institute Assessment	2	12.9	-10.9
Multi-sensori Learning	4	12.9	-8.9
Schonell	1	12.9	-11.9
Quest	2	12.9	-10.9
PhAB and NFER	1	12.9	-11.9
Ravens and BPVS	1	12.9	-11.9
Wechsler, Word, WAIS, Wond	5	12.9	-7.9
PhAB	1	12.9	-11.9
Gestalt	2	12.9	-10.9
Total	194		

Other tests employed

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	159	87.4	87.4	87.4
COPS	2	1.1	1.1	88.5
LASS	4	2.2	2.2	90.7
NFER	2	1.1	1.1	91.8
BPVS	1	.5	.5	92.3
New MacMillan Reading Analysis and BPVS	1	.5	.5	92.9
Dyslexia Institute Assessment	2	1.1	1.1	94.0
Multi-sensori Learning	4	2.2	2.2	96.2
Schonell	1	.5	.5	96.7
Quest	2	1.1	1.1	97.8
PhAB and NFER	1	.5	.5	98.4
Ravens and BPVS	1	.5	.5	98.9
Wechsler, Word, WAIS, Wond	1	.5	.5	99.5
PhAB	1	.5	.5	100.0
Total	182	100.0	100.0	



10c.

The research shows that the educational psychologists in this sample used a wider range of tests to assess dyslexia in Wales than the schools. The Bangor test was more popular than any other single test with 18.6% of the sample using it, particularly when combined with other tests 39.17%, making this test almost twice as likely to be used with the members of this sample as any other test quoted by the respondents. This is a test devised and delivered in Wales and this may account for the high significance of this test in this sample. Plotted against a residual of 22.1 is extremely high and unlikely to be caused by chance alone. 55.56% of those who responded to using a manufactured and standardised test used only one test. 38.5% of the respondents who used a test, however, admitted to using more than one test. It is uncertain, from the research, whether this implies that they use more than one test on each child or how they select which test they will use for a particular child. The group statistics demonstrated a high level of significance to this result implying that the tests were unlikely to be selected by chance alone.

A range of other tests, not listed on the questionnaire, are quoted by respondents. The F test demonstrates a high level of significance, implying that one group differs significantly from the others. That group is the group that employs no tests other than those detailed in the questionnaire. Other tests cited were not significant and were used in extremely small numbers, ranging from one respondent to a maximum of five. This might imply that the most popular tests were those selected for inclusion within the questionnaire. The educational psychologists demonstrated the use of a wider range of tests than the schools employed.

11a. Does the testing process rely upon the child's ability to read?

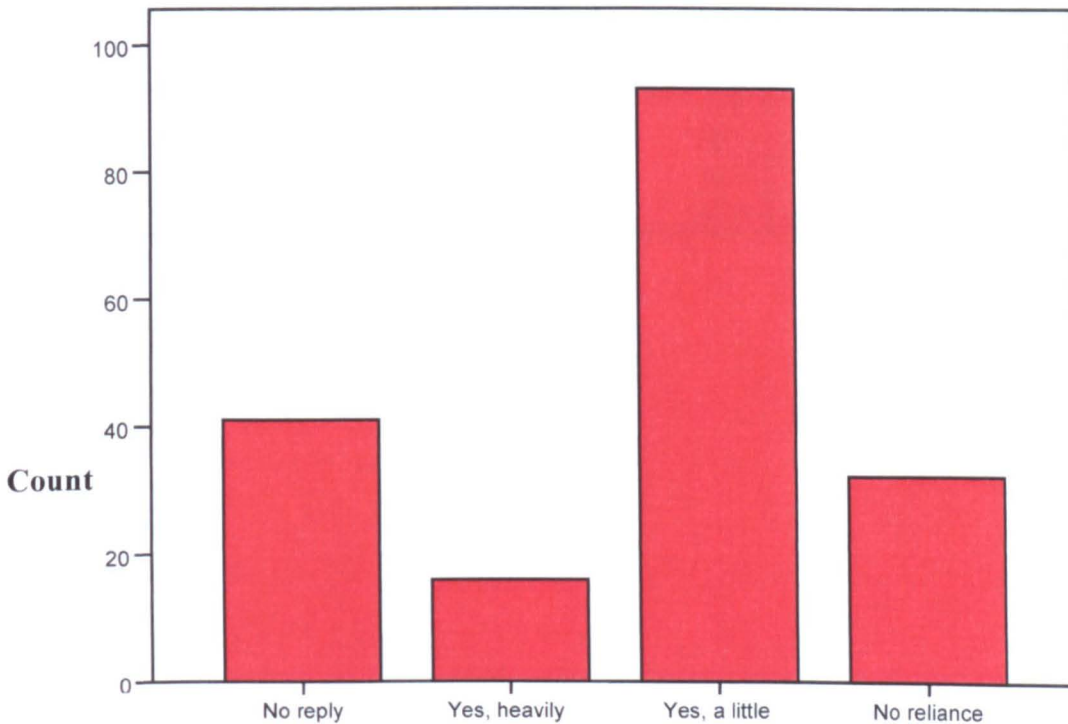
Does test process rely on child's ability to read?

	Observed N	Expected N	Residual
No reply	43	38.8	4.2
Yes, heavily	18	38.8	-20.8
Yes, a little	96	38.8	57.2
No reliance	36	38.8	-2.8
Total	194		

Does test process rely on child's ability to read?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No reply	41	22.5	22.5	22.5
	Yes, heavily	16	8.8	8.8	31.3
	Yes, a little	93	51.1	51.1	82.4
	No reliance	32	17.6	17.6	100.0
Total		182	100.0	100.0	

11b.



Does test process rely on child's ability to read?

11c.

According to the tests of significance, the groups do differ significantly from the group as a whole. If we add the number whose testing process relied on the child's ability to read in some form, the levels are very high and significant with 114 respondents or 58.76% of the total sample, that is 75.5% of the sample that replied to this question, agreeing that the tests they used relied to some degree upon the child's ability to read. Less than 19% of the total sample used testing procedures that did not rely upon the child's ability to read.

12a. Does the test assess both verbal reasoning and practical abilities?

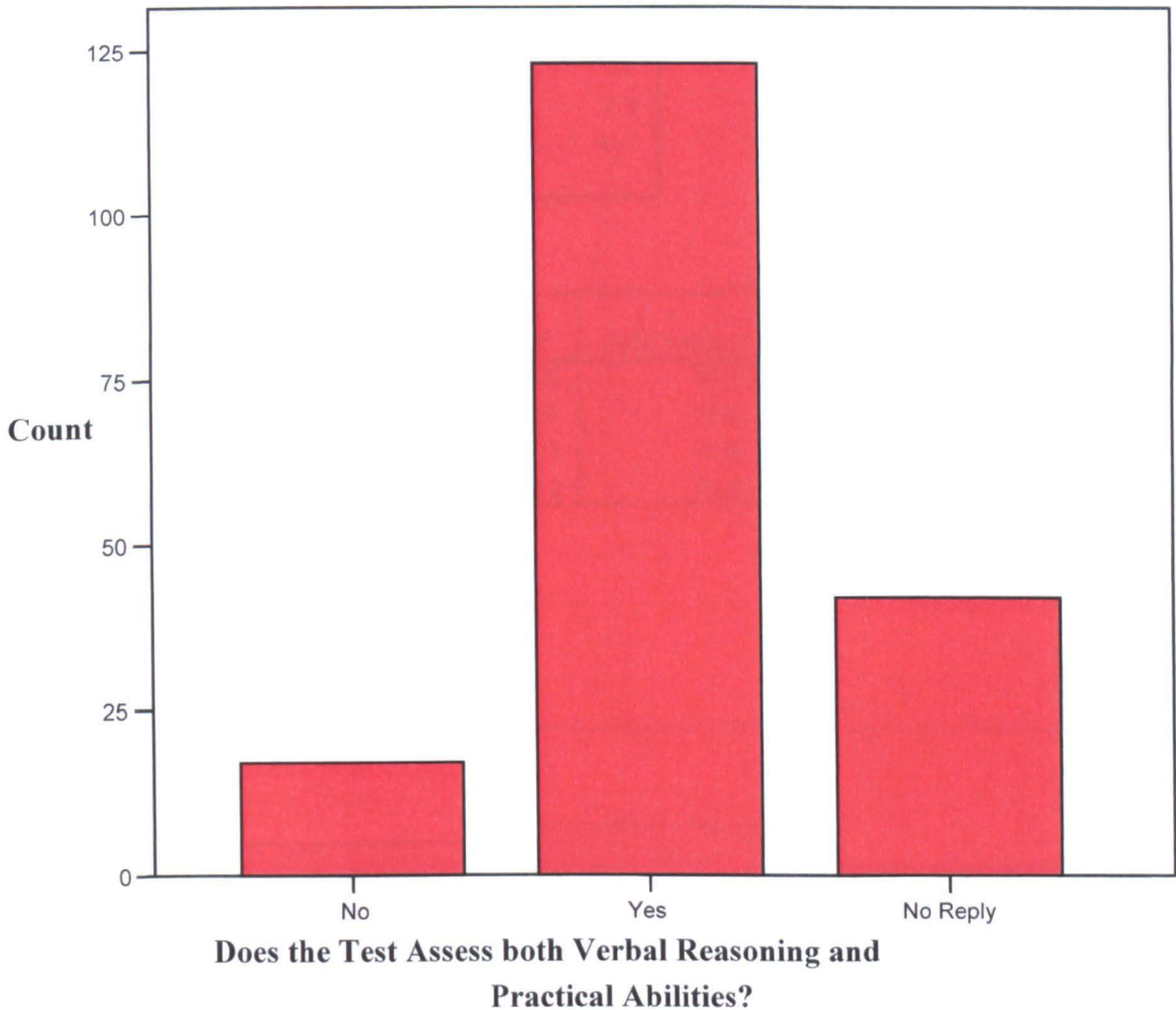
Does the test assess both verbal reasoning and practical activities?

	Observed N	Expected N	Residual
No	19	64.7	-45.7
Yes	133	64.7	68.3
No Reply	42	64.7	-22.7
Total	194		

Does the test assess both verbal reasoning and practical abilities?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	17	9.3	9.3	9.3
Yes	123	67.6	67.6	76.9
No Reply	42	23.1	23.1	100.0
Total	182	100.0	100.0	

12b.



12c.

A large majority, 68.6% of the sample believe that the assessments used do assess both verbal reasoning and practical abilities. 9.8% of the sample did not feel that their testing process assessed both. This can be compared with the number of respondents in question 15 who claimed that they did not use a physiological test 35.5%. This result is unlikely to have been caused by chance and is therefore significant. The difference between the questions 12 and 15 may be due to respondents not fully understanding the question, or being unsure of what constitutes a physiological test.

13a. Is allowance made for children for whom English is not their first language?

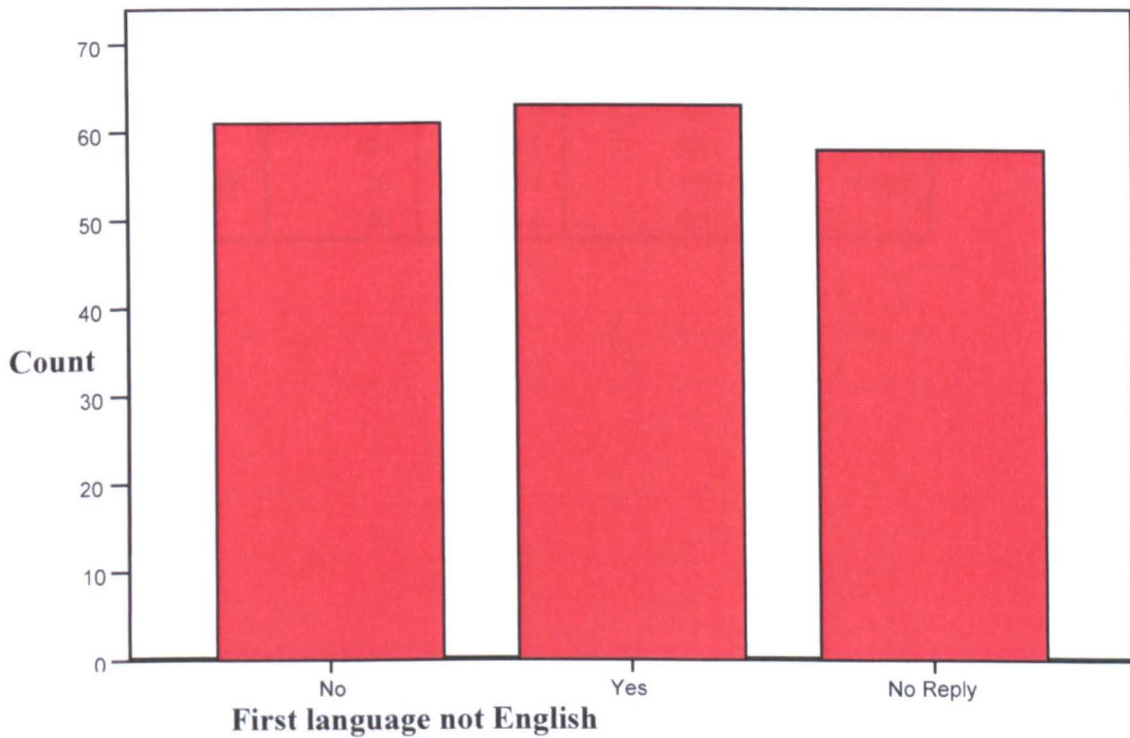
First language not English

	Observed N	Expected N	Residual
No	64	64.7	-.7
Yes	72	64.7	7.3
No Reply	58	64.7	-6.7
Total	194		

First language not English

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	61	33.5	33.5	33.5
	Yes	63	34.6	34.6	68.1
	No Reply	58	31.9	31.9	100.0
	Total	182	100.0	100.0	

13b.



13c.

The sample is evenly split between those who did take into account that English was not the child's first language, (37.1% of the sample) and those who did not (33%) and those who did not reply (29.9%). The standard error of difference between the groups

is not significant. This is not, on the surface, a significant result, however, in a bilingual province such as Wales, it was perhaps a surprising result, and a more significant result might have been expected.

14a. Is any account made for disruptive behaviour, poor self concept and/or emotional difficulties?

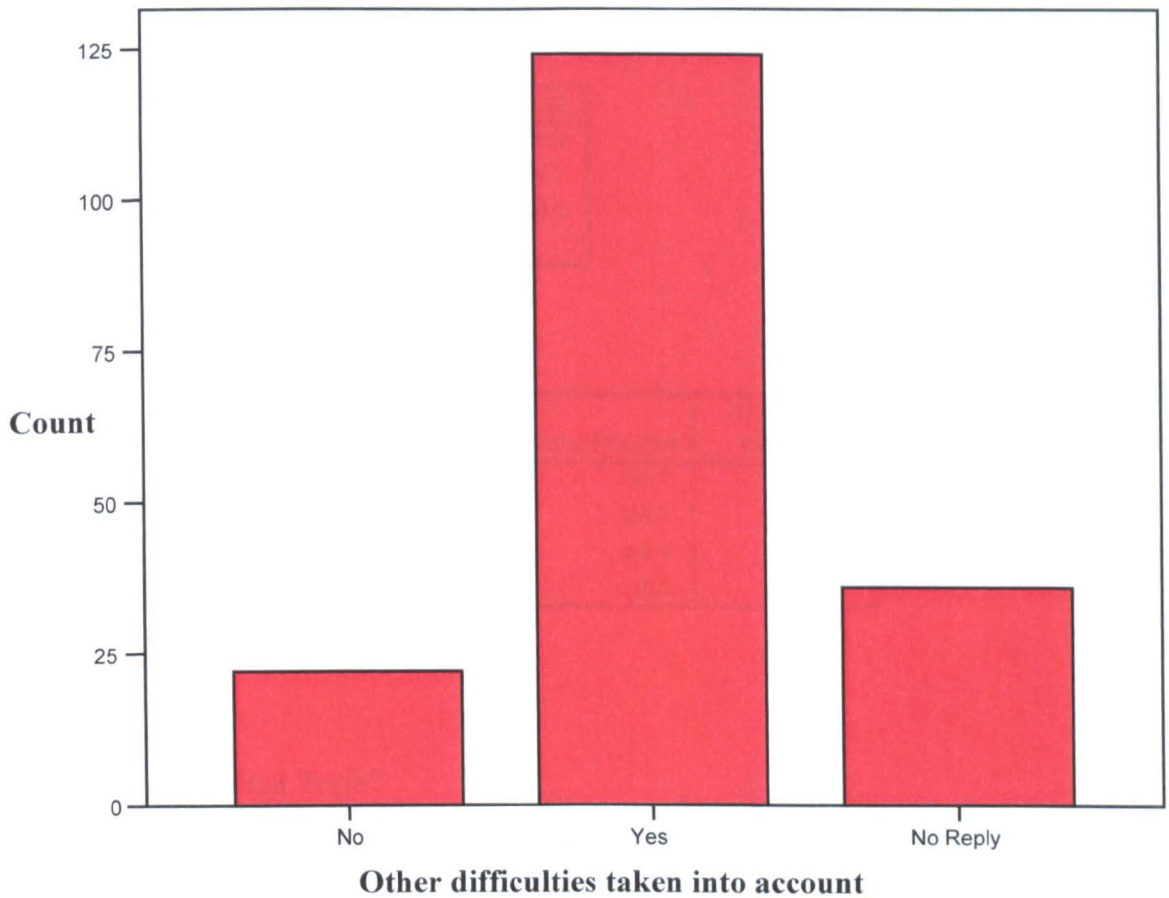
Other difficulties taken into account

	Observed N	Expected N	Residual
No	24	64.7	-40.7
Yes	133	64.7	68.3
No Reply	37	64.7	-27.7
Total	194		

Other difficulties taken into account

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	22	12.1	12.1	12.1
Yes	124	68.1	68.1	80.2
No Reply	36	19.8	19.8	100.0
Total	182	100.0	100.0	

14b.



14c.

When asked if any account was taken of disruptive behaviour, poor self-concept and/or emotional difficulties, the question proved to be highly significant, with 68.5% of the sample believing that they do take such difficulties into account. In this question, there is a limited difference between the educational psychologists, and the schools assessors, and the mean scores are similar 1.08 and .94 for the educational psychologists.

15a. Are any physiological tests conducted? If so what is their nature?
 (Open answer question)

Use of physiological tests?

	Observed N	Expected N	Residual
No	69	64.7	4.3
Yes	50	64.7	-14.7
No reply	75	64.7	10.3
Total	194		

Use of Physiological Tests?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	64	35.2	35.2	35.2
Yes	45	24.7	24.7	59.9
No reply	73	40.1	40.1	100.0
Total	182	100.0	100.0	

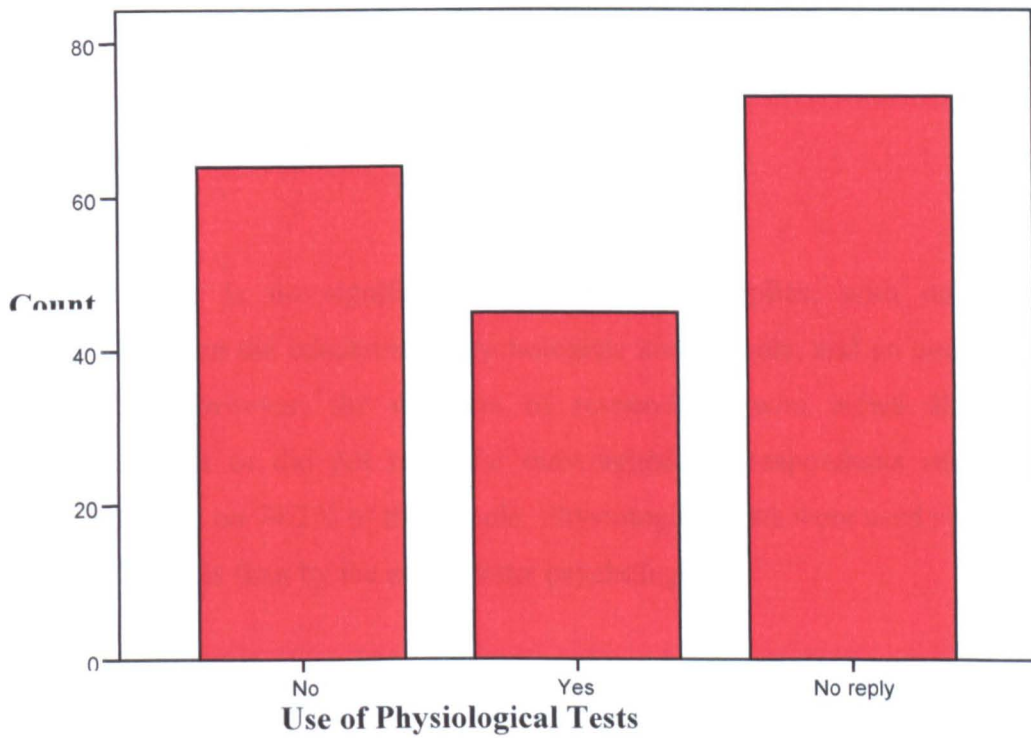
Type of Physiological Tests?

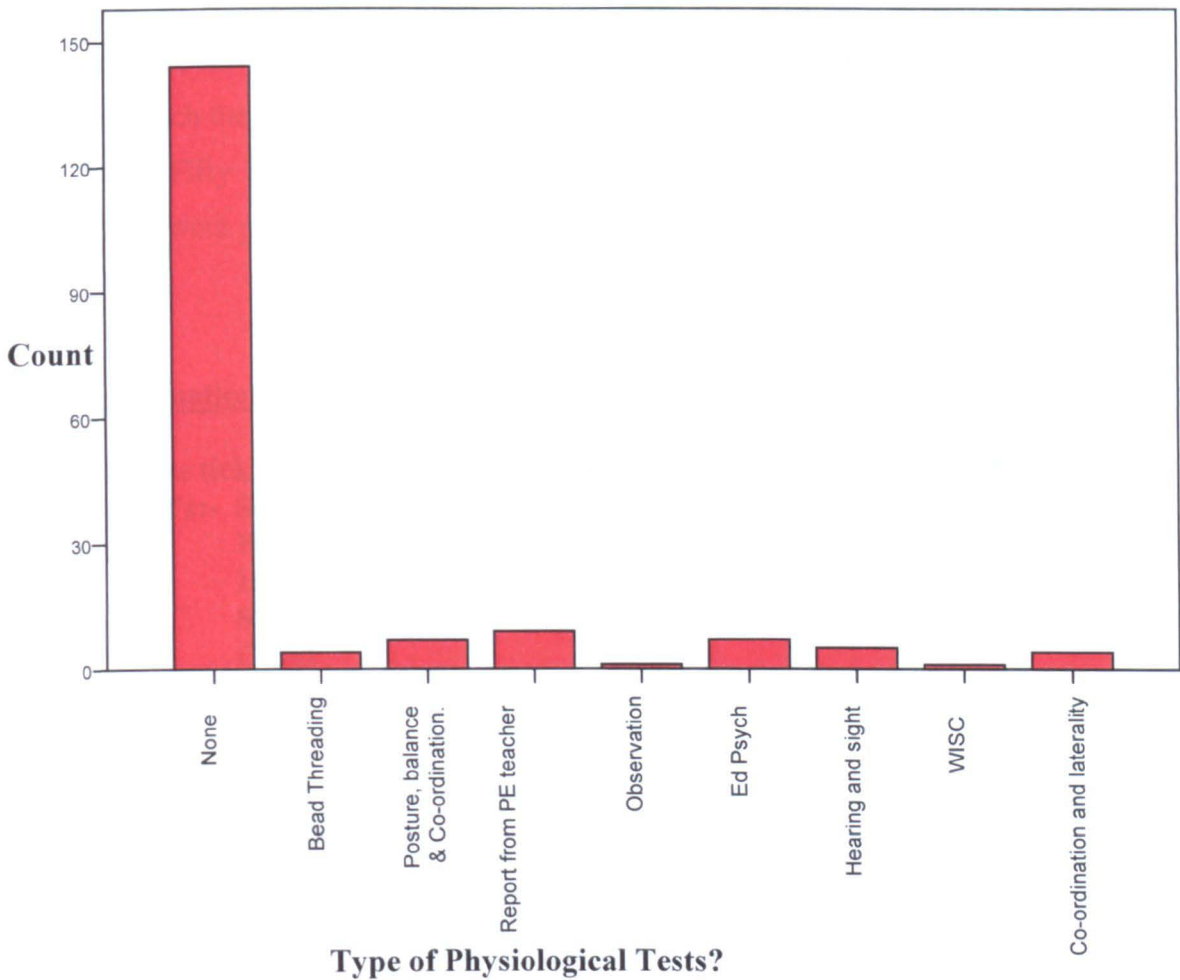
	Observed N	Expected N	Residual
None	151	17.6	133.4
Bead Threading	4	17.6	-13.6
Posture and Balance Observation	7	17.6	-10.6
Report from PE teacher Observation	9	17.6	-8.6
Done by Ed Psych	1	17.6	-16.6
Hearing and sight WISC	7	17.6	-10.6
WISC	1	17.6	-16.6
Co-ordination and Laterality	4	17.6	-13.6
Wepman Auditory Discrimination	1	17.6	-16.6
Irlens	2	17.6	-15.6
Total	194		

Type of Physiological Tests?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	144	79.1	79.1	79.1
Bead Threading	4	2.2	2.2	81.3
Posture and Balance Observation	7	3.8	3.8	85.2
Report from PE teacher	9	4.9	4.9	90.1
Observation	1	.5	.5	90.7
Done by Ed Psych	7	3.8	3.8	94.5
Hearing and sight	5	2.7	2.7	97.3
WISC	1	.5	.5	97.8
Co-ordination and Laterality	4	2.2	2.2	100.0
Total	182	100.0	100.0	

15b.





15c.

Statistically there is no significance between these replies, with only limited differences between the educational psychologists and schools, and an equal number of no replies. However, the numbers of respondents who either did not use physiological tests or did not reply far outweighed the respondents who did use physiological tests on 74.2% of the sample. Physiological tests were used significantly more by the schools than by the educational psychologists.

The type of physiological “test” employed most frequently by the sample was a report from the P.E teacher at 4.6% of the sample, but the type of tests employed were widespread and no one test was significant. High significance can be established from respondents who replied that no tests were employed. The educational psychologists used the physiological tests less often than the schools but a wider range of tests was employed.

A number of respondents to this question were not prepared to share with the questionnaire, or were unaware of the physiological tests used in the assessment. This does not match the number responding to the question that asked if physiological tests were used. Fifty respondents say that physiological tests are employed; only 43 respondents were prepared to share which tests are used.

5.2.3. Information Questions

- 16a. Please tick if you include in your assessments information from the child's:-
- School
 - Parents
 - Hospital/ GP
 - School Doctor
 - Child
 - Other

Information from School

	Observed N	Expected N	Residual
No	14	64.7	-50.7
Yes	151	64.7	86.3
No reply	29	64.7	-35.7
Total	194		

Information from School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	12	6.6	6.6	6.6
	Yes	140	76.9	77.3	84.0
	No reply	29	15.9	16.0	100.0
	Total	181	99.5	100.0	
Missing	System	1	.5		
Total		182	100.0		

Information from Parents

	Observed N	Expected N	Residual
No	8	64.7	-56.7
Yes	156	64.7	91.3
No reply	30	64.7	-34.7
Total	194		

Information from Parents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	6	3.3	3.3	3.3
Yes	146	80.2	80.2	83.5
No reply	30	16.5	16.5	100.0
Total	182	100.0	100.0	

Information from School Doctor

	Observed N	Expected N	Residual
No	96	64.7	31.3
Yes	69	64.7	4.3
No reply	29	64.7	-35.7
Total	194		

Information from School Doctor

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	94	51.6	51.6	51.6
Yes	59	32.4	32.4	84.1
No reply	29	15.9	15.9	100.0
Total	182	100.0	100.0	

Information from Child

	Observed N	Expected N	Residual
No	41	64.7	-23.7
Yes	123	64.7	58.3
No reply	30	64.7	-34.7
Total	194		

Information from Child

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	40	22.0	22.0	22.0
Yes	112	61.5	61.5	83.5
No reply	30	16.5	16.5	100.0
Total	182	100.0	100.0	

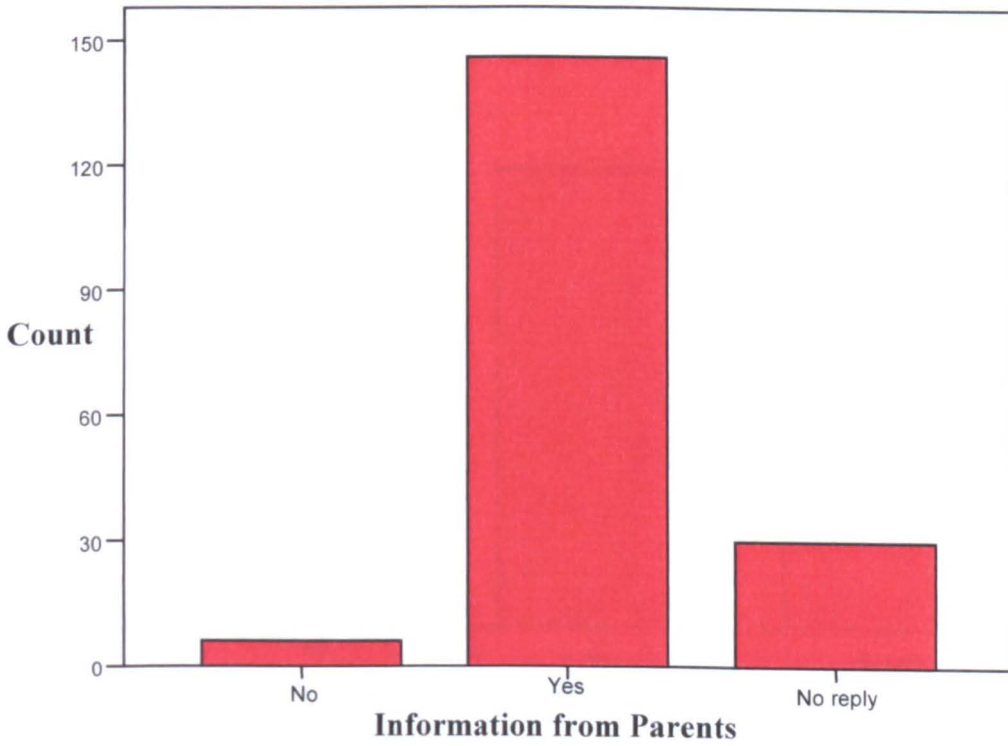
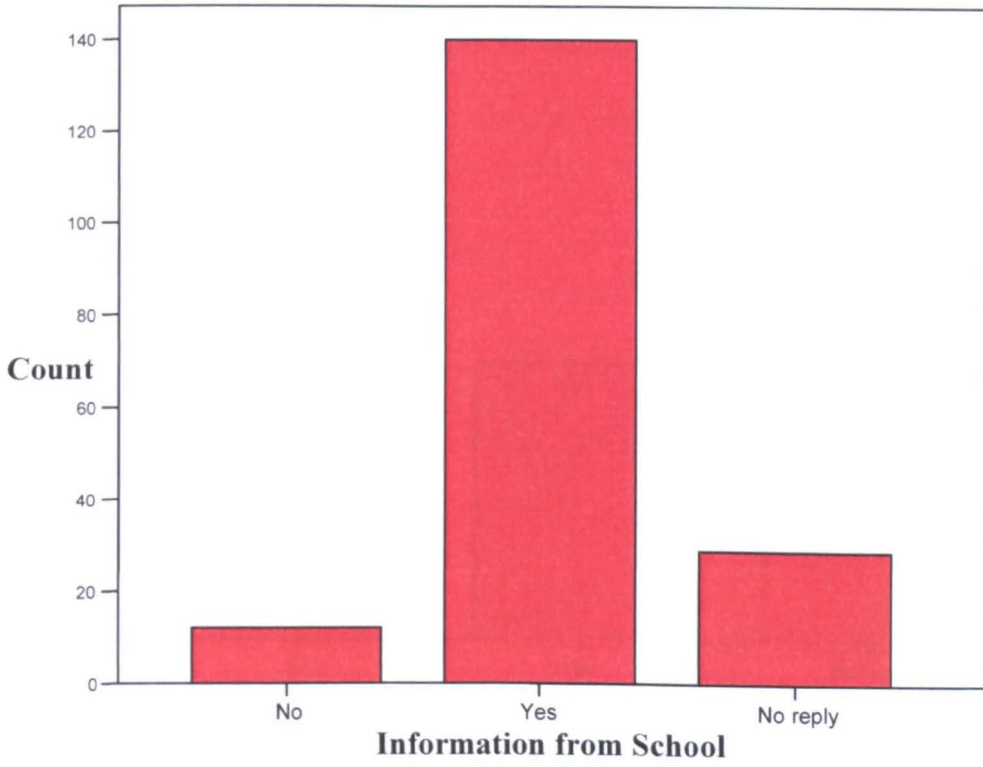
Information from Other Source

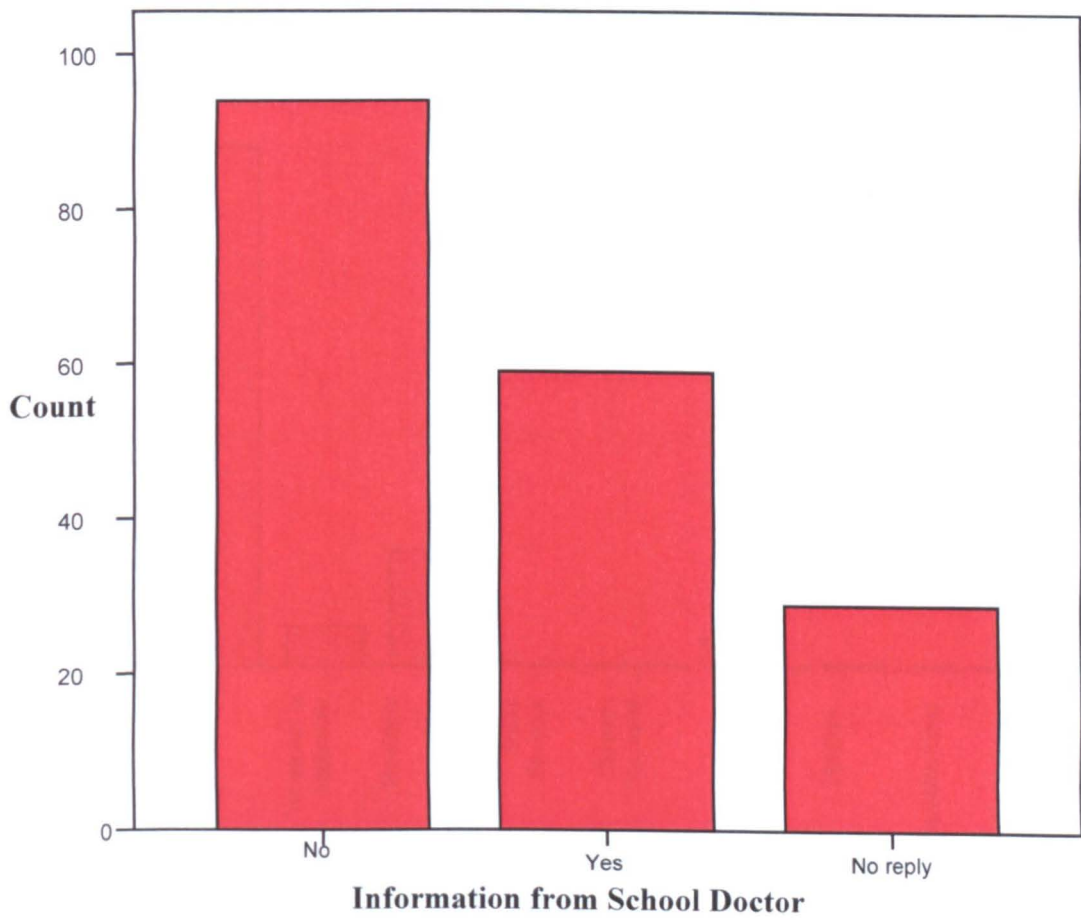
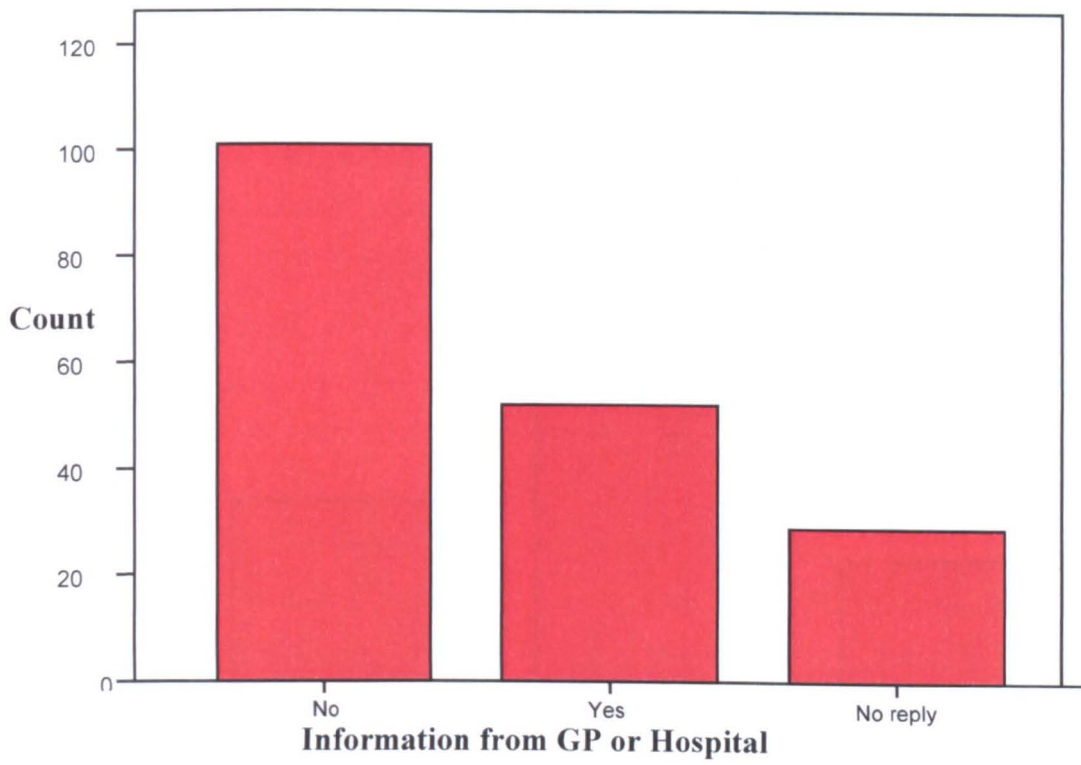
	Observed N	Expected N	Residual
No	141	21.6	119.4
What ever is applicable	10	21.6	-11.6
No reply	29	21.6	7.4
Social Services	2	21.6	-19.6
Speech Therapist	1	21.6	-20.6
Educational Psychologist	7	21.6	-14.6
Optician	1	21.6	-20.6
Physiotherapist	2	21.6	-19.6
Previous assessments	1	21.6	-20.6
Total	194		

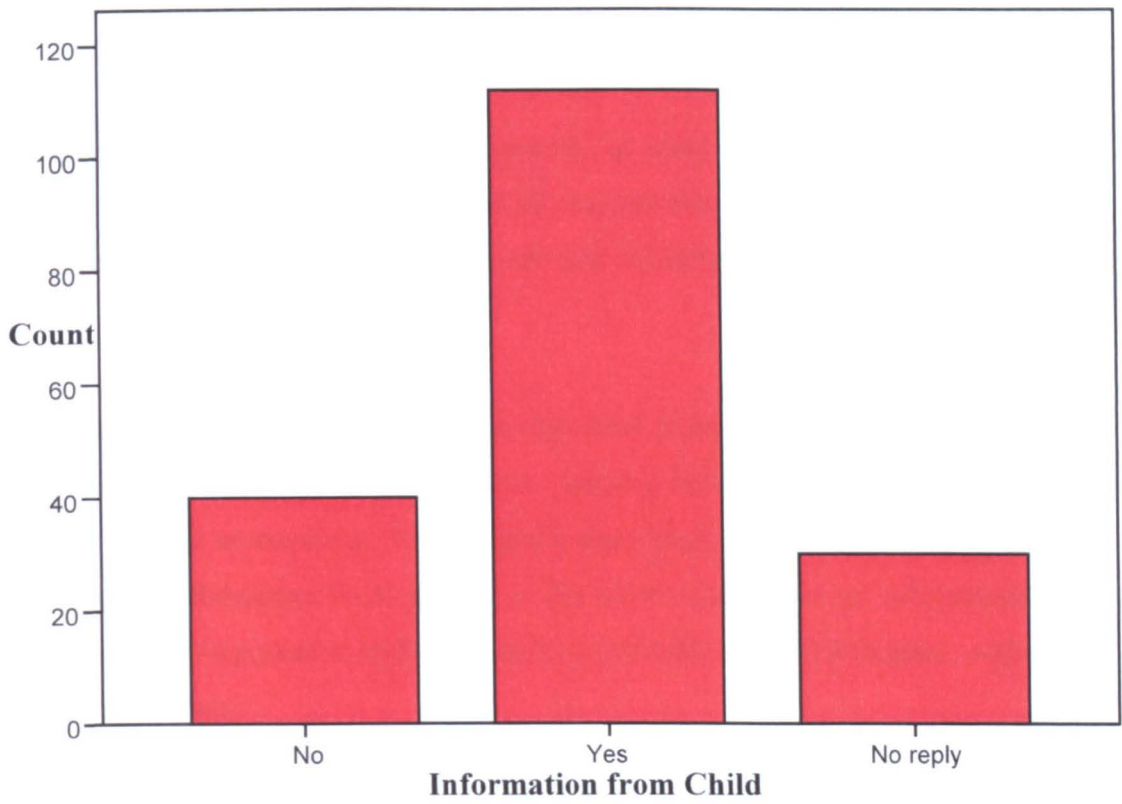
Information from Other Source

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	131	72.0	72.0	72.0
What ever is applicable	10	5.5	5.5	77.5
No reply	29	15.9	15.9	93.4
Social Services	1	.5	.5	94.0
Speech Therapist	1	.5	.5	94.5
Educational Psychologist	7	3.8	3.8	98.4
Optician	1	.5	.5	98.9
Physiotherapist	1	.5	.5	99.5
Previous assessments	1	.5	.5	100.0
Total	182	100.0	100.0	

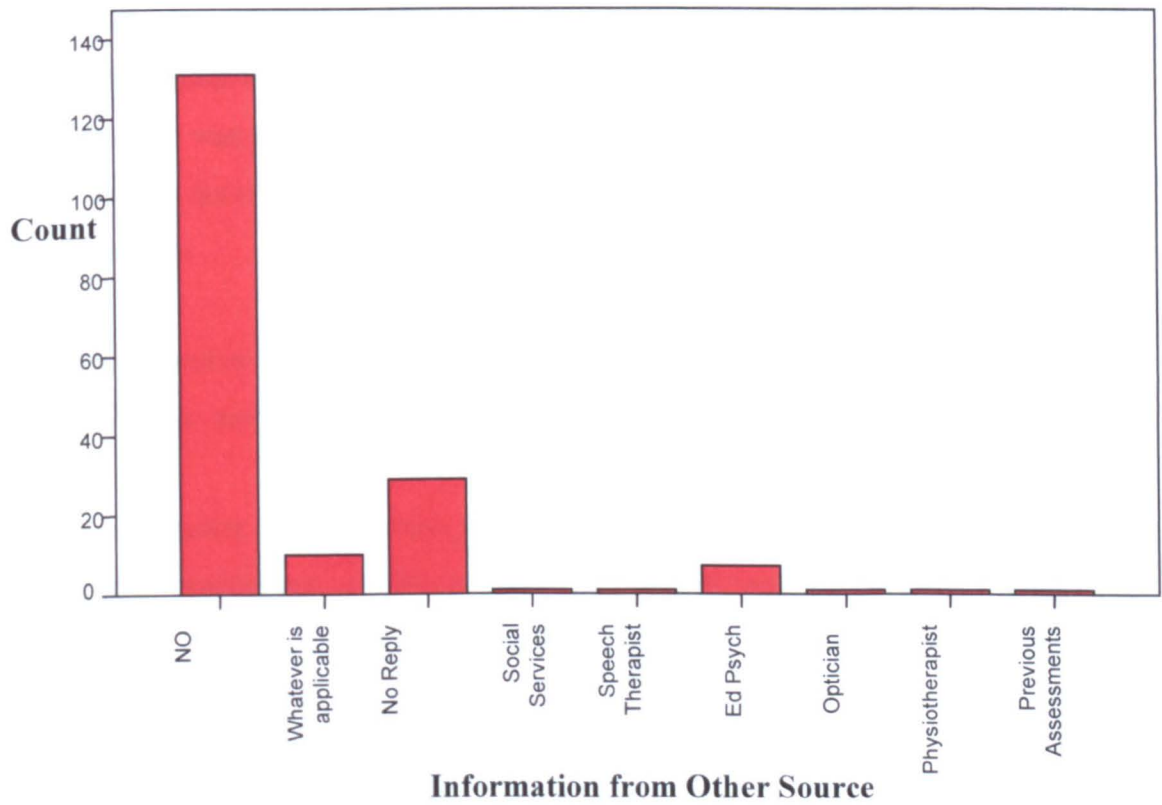
16b







w



16c.

Information from the school, for assessment, is used widely by the schools and educational psychologists, with 77.8% of all respondents using this information to aid their assessments. This is highly significant and unlikely to have occurred by chance alone.

The use of information from parents was the most regularly used information to aid assessment, with 80.4% of all respondents claiming that they use this information to contribute to their assessment. This is significantly higher than might be expected by chance alone. Information from parents is the most used source of information, and this emphasis of importance applied equally to educational psychologists, and to the schools assessments.

Information from the general practitioner or the hospital was the least used source of information for assessment. The group who did not use this source was significantly higher than those who did, and differed widely from the statistically expected number, and therefore was more than would be expected by chance alone. Approximately the same mean score existed between the school assessors and the educational psychologists.

A similar number of 'no relies' was seen in all the options for this question with almost 15% no replies.

A greater number of respondents took information from the school doctor than from the general practitioner and the hospital. The significance of this was limited. The mean scores between the educational psychologists and the schools were similar with .65 and .72.

The information from the child was used equally as often by the educational psychologists and the school assessors. 64% of the whole sample took information from the child. 15% of the sample made no reply. More significantly are the 21% of the sample who state that they do not take the evidence from the child for their assessment.

Although a wide range of other sources was cited, no one source proved to be statistically significant. Assessments undertaken by the educational psychologists did tend to use a greater range of sources than the school's assessors.

17a. Please tick if you take a medical/ developmental history of the child/ child's family.

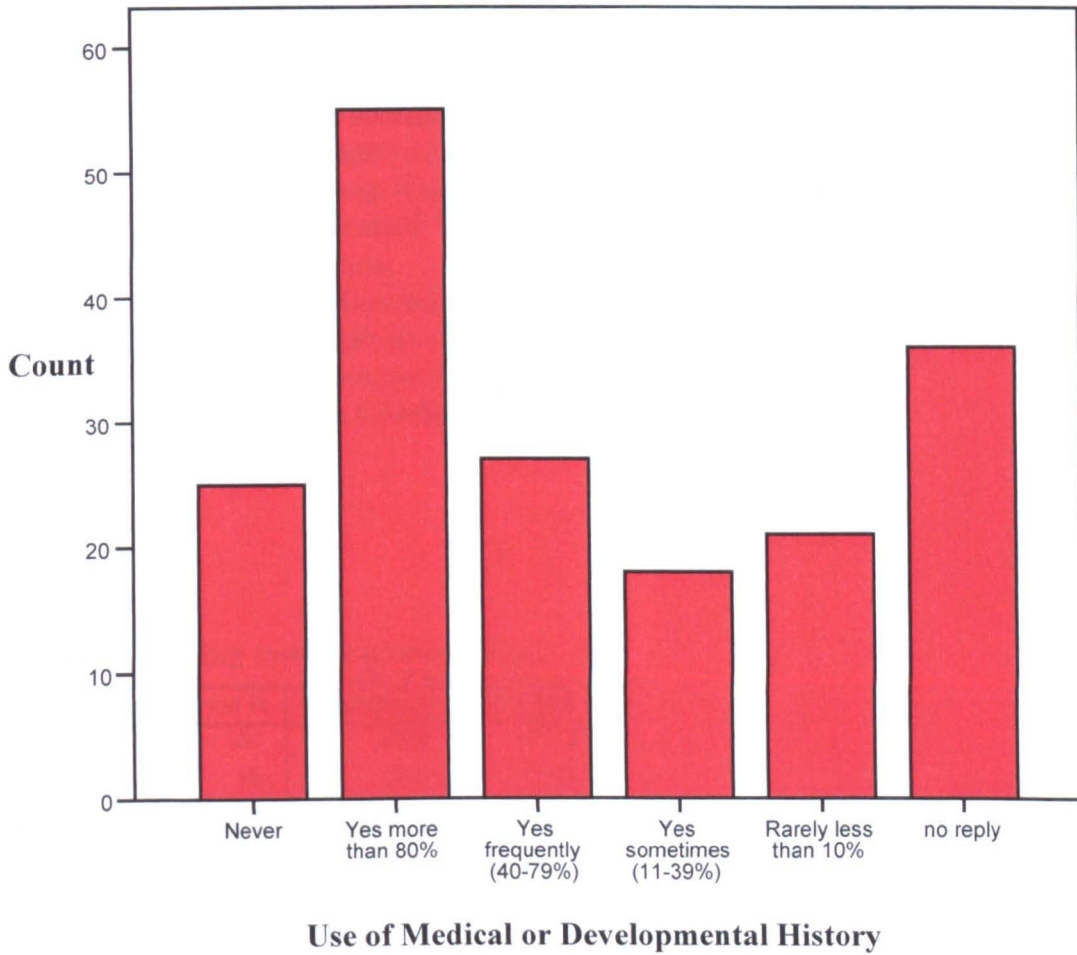
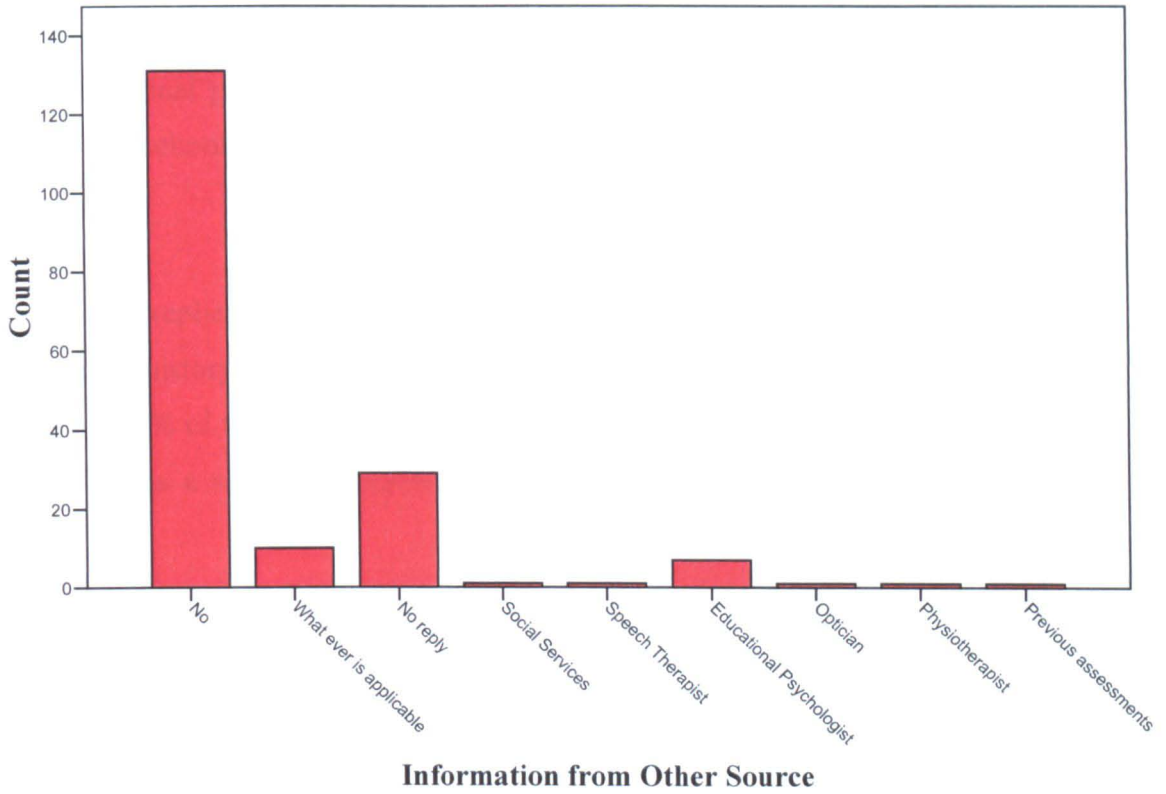
Use of Medical or Developmental History

	Observed N	Expected N	Residual
Never	26	32.3	-6.3
Yes more than 80%	62	32.3	29.7
Yes frequently (40-79%)	28	32.3	-4.3
Yes sometimes (11-39%)	20	32.3	-12.3
Rarely less than 10%	22	32.3	-10.3
no reply	36	32.3	3.7
Total	194		

Use of Medical or Developmental History

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	25	13.7	13.7	13.7
Yes more than 80%	55	30.2	30.2	44.0
Yes frequently (40-79%)	27	14.8	14.8	58.8
Yes sometimes (11-39%)	18	9.9	9.9	68.7
Rarely less than 10%	21	11.5	11.5	80.2
no reply	36	19.8	19.8	100.0
Total	182	100.0	100.0	

17b.



17c.

More use is made by the schools of the child's past medical or developmental history than by the educational psychologists. Greater access to developmental history may be available to the school with their likely greater familiarity with the child and the family.

Of the sample who replied 83.54% took some account of the child's family medical and developmental history. 32% of the whole sample did so in 80% of the cases that they saw. Only 13.4% of the whole sample admitted that they never took this variable into account. This is a significant result and unlikely to have occurred by chance alone.

5.2.4. Testing Questions

18a. What reading tests do you use?

Burt Word reading test
Suffolk Reading Scale
Edinburgh Reading Test
Word Recognition Test
Young Group Reading Test
Schonell Graded Word Reading Test
Neale Analysis
Standard Reading Test
Durrell Analysis of Reading Difficulty
Salford Sentence Reading Test
Wide Span Reading Test
Other

Type of reading tests employed: Burt

	Observed N	Expected N	Residual
No	184	97.0	87.0
Yes	10	97.0	-87.0
Total	194		

Type of reading tests employed: Burt

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	172	94.5	94.5	94.5
Yes	10	5.5	5.5	100.0
Total	182	100.0	100.0	

Type of reading tests employed: Suffolk

	Observed N	Expected N	Residual
No	159	97.0	62.0
Yes	35	97.0	-62.0
Total	194		

Type of reading tests employed: Suffolk

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	147	80.8	80.8	80.8
Yes	35	19.2	19.2	100.0
Total	182	100.0	100.0	

Type of reading tests employed: Edinburgh

	Observed N	Expected N	Residual
No	185	97.0	88.0
Yes	9	97.0	-88.0
Total	194		

Type of reading tests employed: Edinburgh

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	173	95.1	95.1	95.1
Yes	9	4.9	4.9	100.0
Total	182	100.0	100.0	

Type of reading tests employed: Durrell

	Observed N	Expected N	Residual
No	194	194.0	.0
Total	194 ^a		

a. This variable is constant. Chi-Square Test cannot be performed.

Type of reading tests employed: Durrell

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	182	100.0	100.0	100.0

Type of reading tests employed: Salford

	Observed N	Expected N	Residual
No	162	97.0	65.0
Yes	32	97.0	-65.0
Total	194		

Type of reading tests employed: Salford

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	151	83.0	83.0	83.0
Yes	31	17.0	17.0	100.0
Total	182	100.0	100.0	

Type of reading tests employed: Wide Span

	Observed N	Expected N	Residual
No	193	97.0	96.0
Yes	1	97.0	-96.0
Total	194		

Type of reading tests employed: Wide Span

	Observed N	Expected N	Residual
No	193	97.0	96.0
Yes	1	97.0	-96.0
Total	194		

Type of reading tests employed: Wide Span

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	181	99.5	99.5	99.5
	Yes	1	.5	.5	100.0
	Total	182	100.0	100.0	

Type of reading tests employed: WRT

	Observed N	Expected N	Residual
No	174	97.0	77.0
Yes	20	97.0	-77.0
Total	194		

Type of reading tests employed: WRT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	166	91.2	91.2	91.2
	Yes	16	8.8	8.8	100.0
	Total	182	100.0	100.0	

Type of reading tests employed: Young

	Observed N	Expected N	Residual
No	165	97.0	68.0
Yes	29	97.0	-68.0
Total	194		

Type of reading tests employed: Young

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	153	84.1	84.1	84.1
	Yes	29	15.9	15.9	100.0
	Total	182	100.0	100.0	

Type of reading tests employed: Schonell

	Observed N	Expected N	Residual
No	129	97.0	32.0
Yes	65	97.0	-32.0
Total	194		

Type of reading tests employed: Schonell

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	117	64.3	64.3	64.3
	Yes	65	35.7	35.7	100.0
	Total	182	100.0	100.0	

Type of reading tests employed: Neale

	Observed N	Expected N	Residual
No	111	97.0	14.0
Yes	83	97.0	-14.0
Total	194		

Type of reading tests employed: Neale

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	101	55.5	55.5	55.5
	Yes	81	44.5	44.5	100.0
	Total	182	100.0	100.0	

Type of reading tests employed: SRT

	Observed N	Expected N	Residual
No	184	97.0	87.0
Yes	10	97.0	-87.0
Total	194		

Type of reading tests employed: SRT

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	172	94.5	94.5	94.5
Yes	10	5.5	5.5	100.0
Total	182	100.0	100.0	

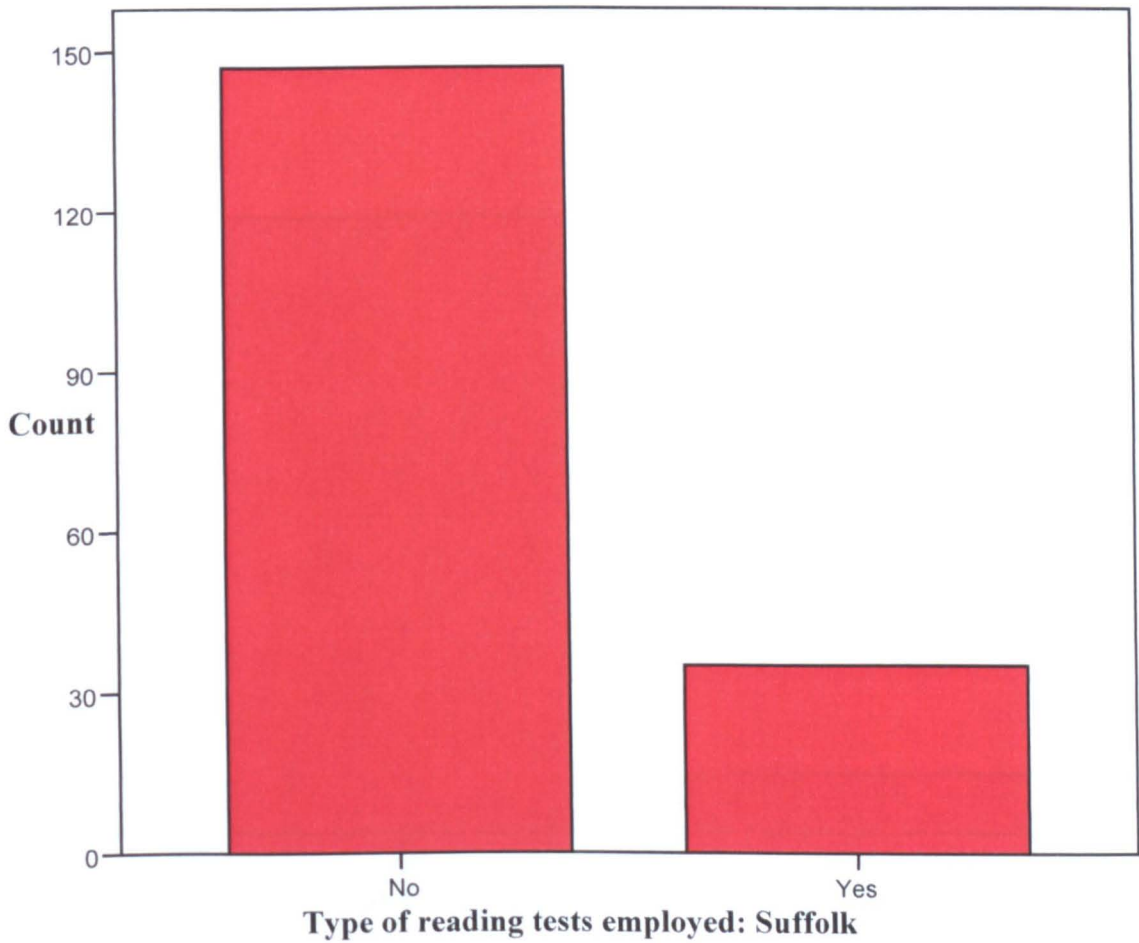
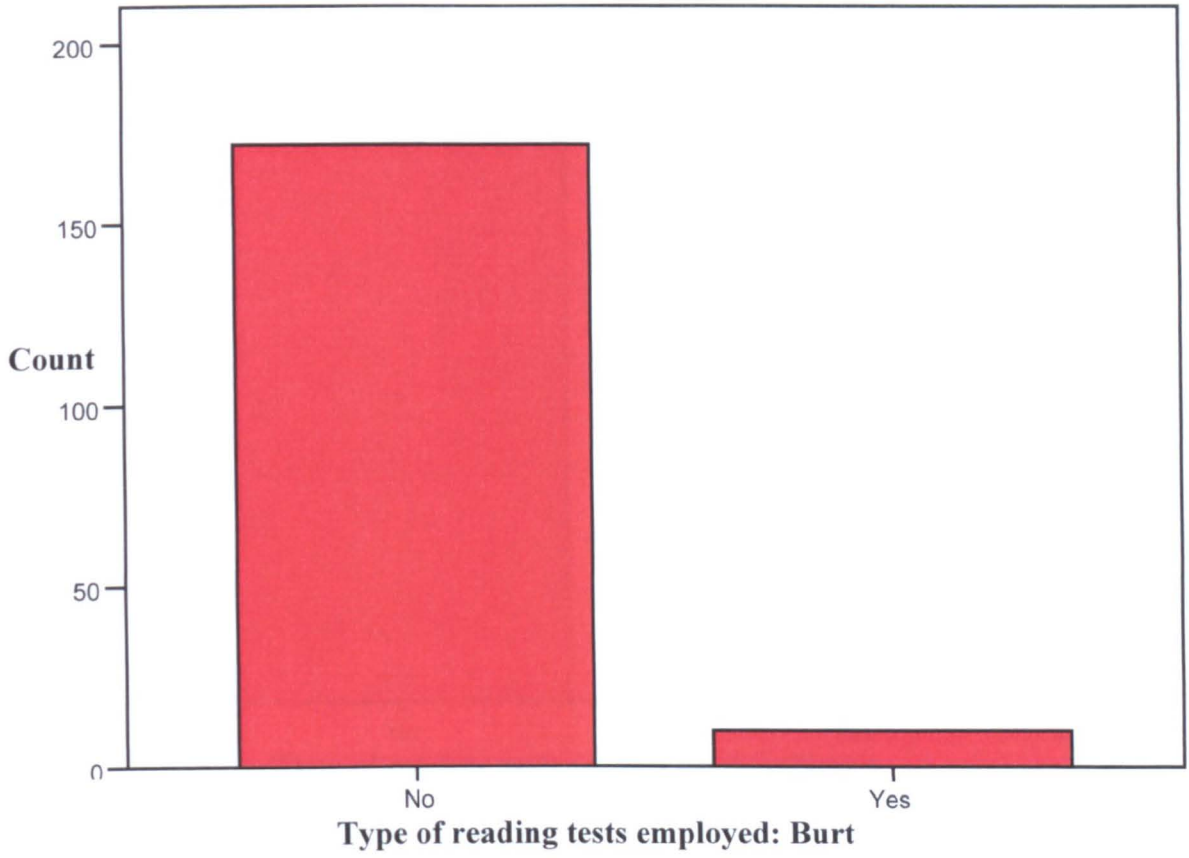
Name of other reading tests employed

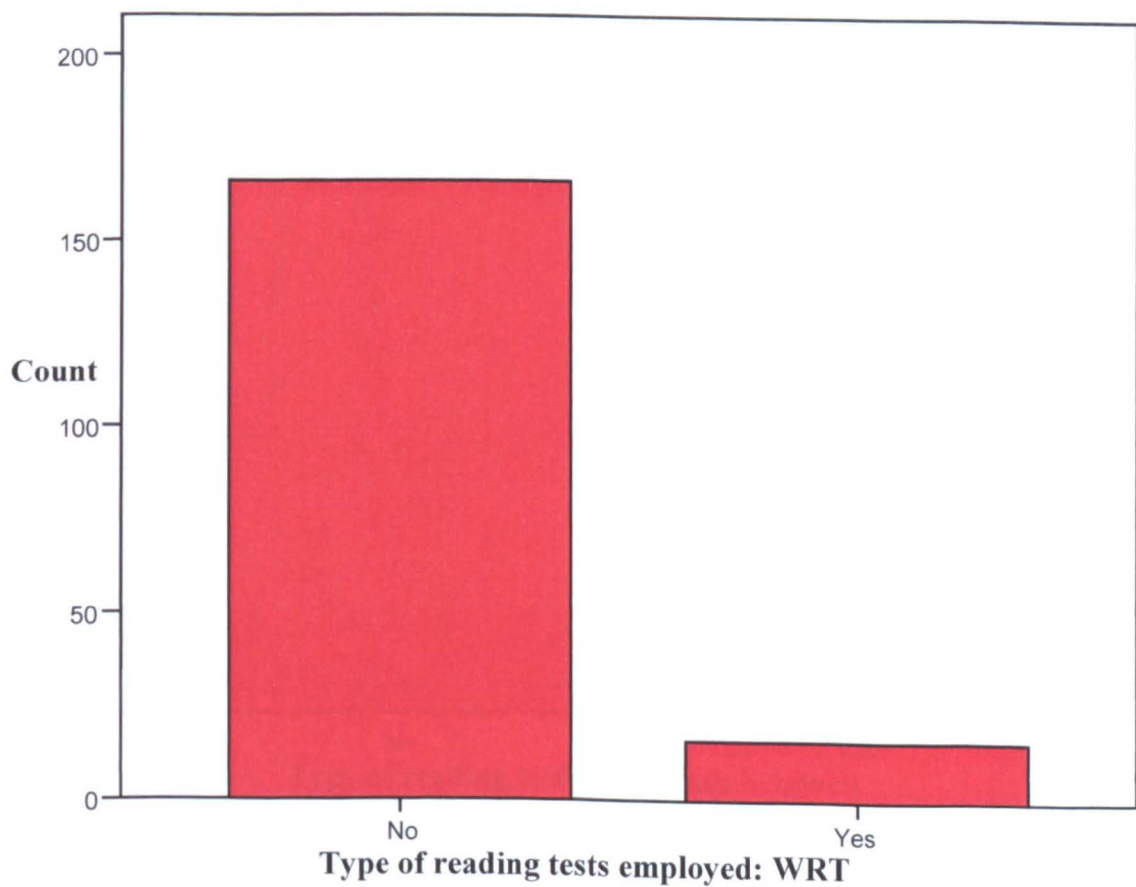
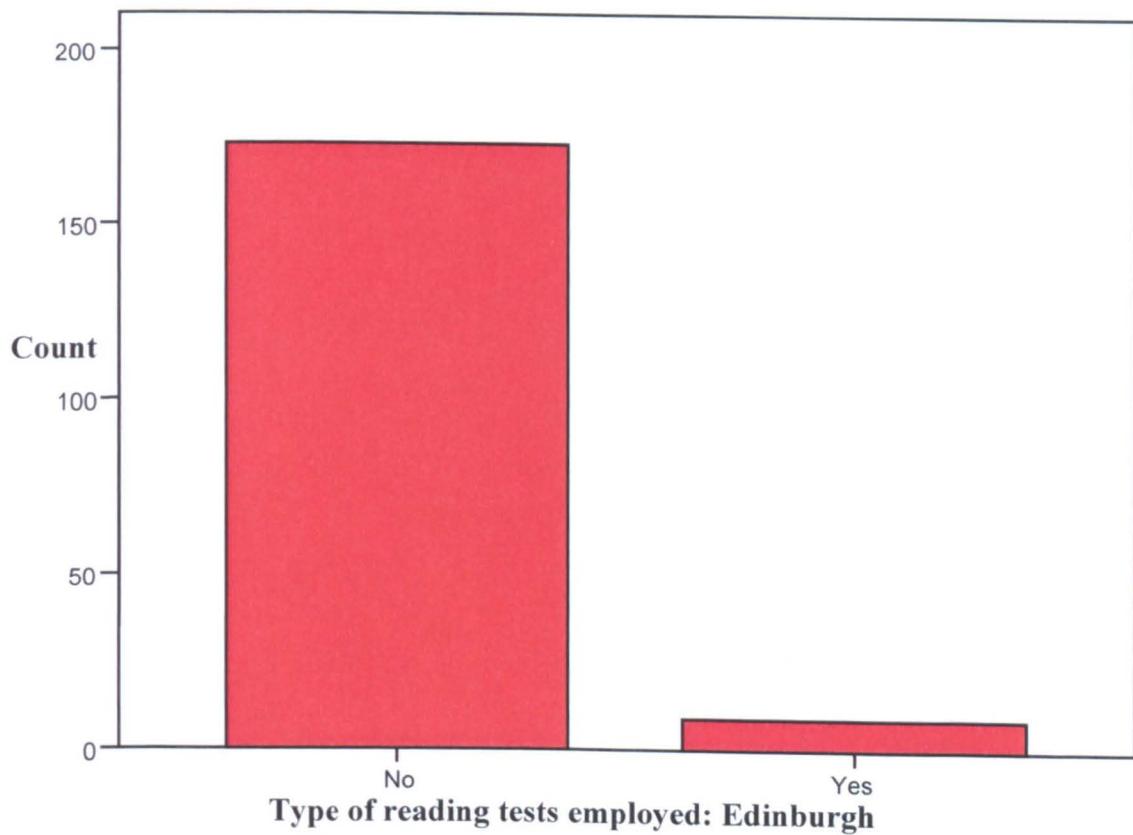
	Observed N	Expected N	Residual
No	125	97.0	28.0
Yes	69	97.0	-28.0
Total	194		

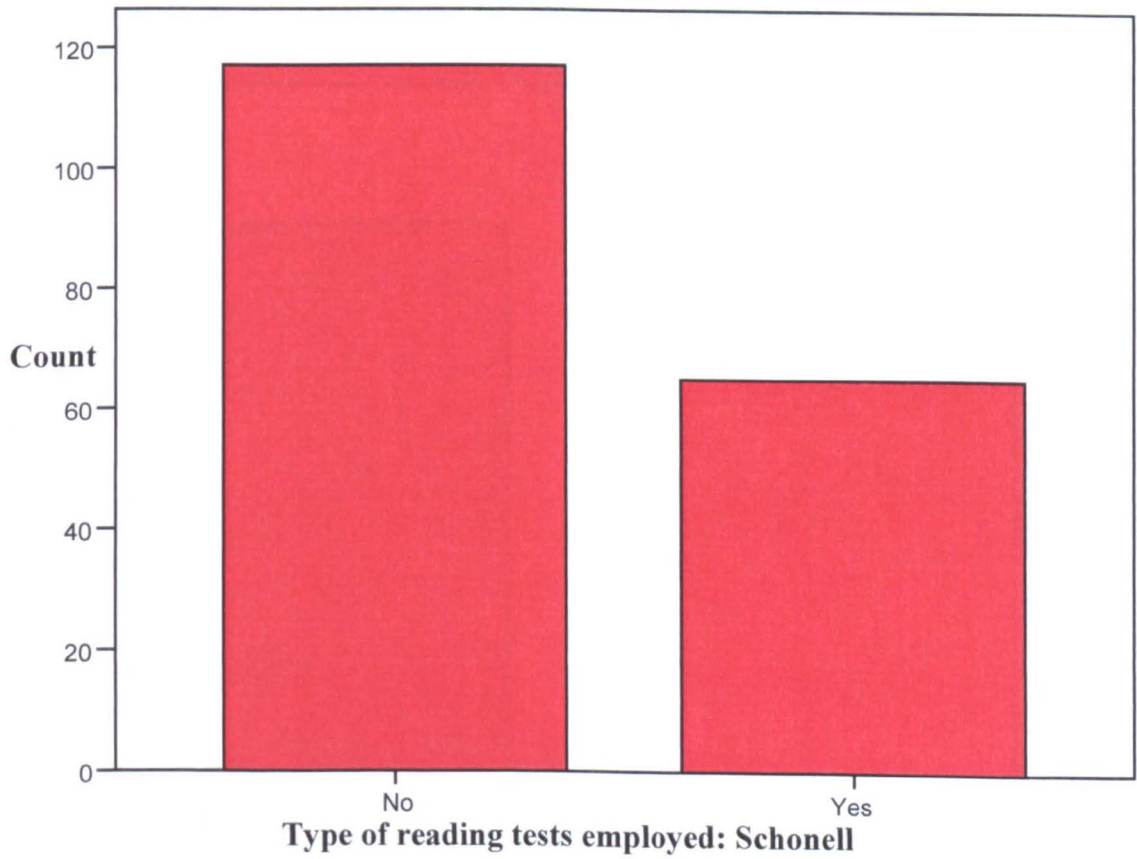
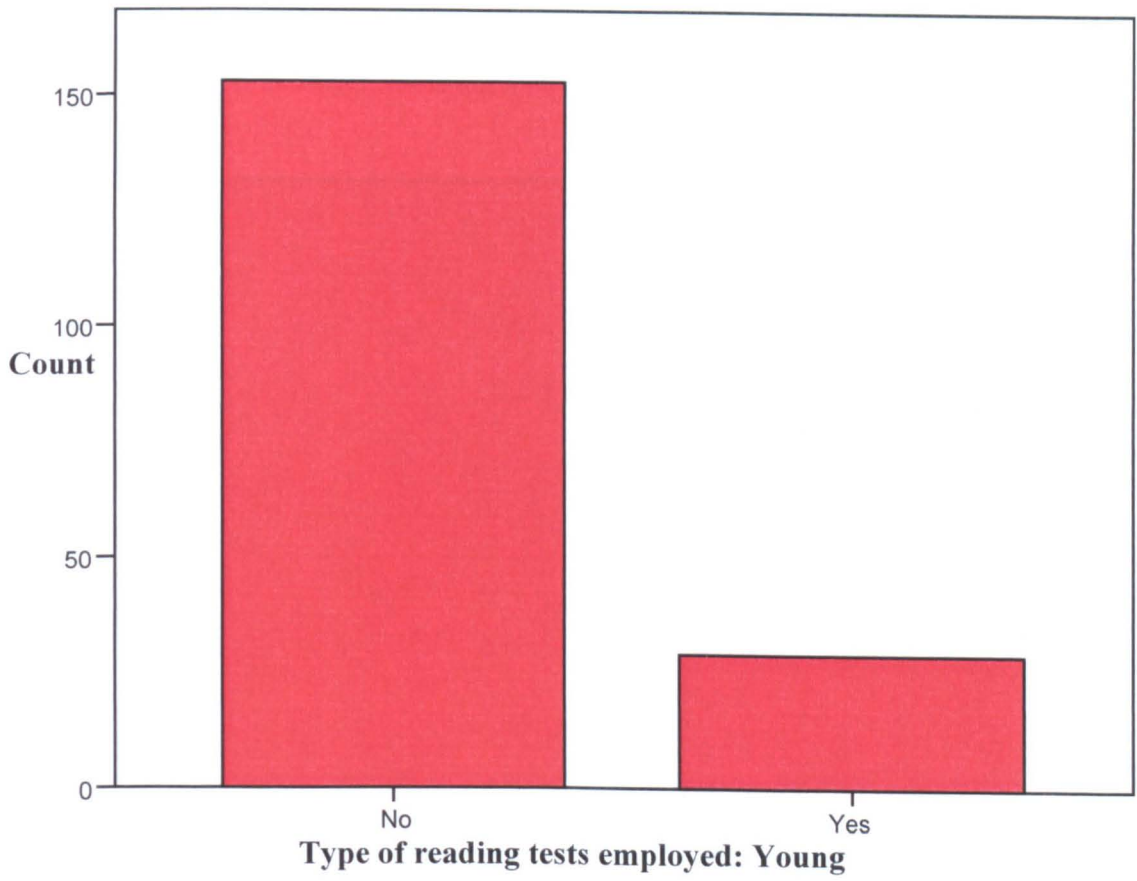
Name of other reading tests employed

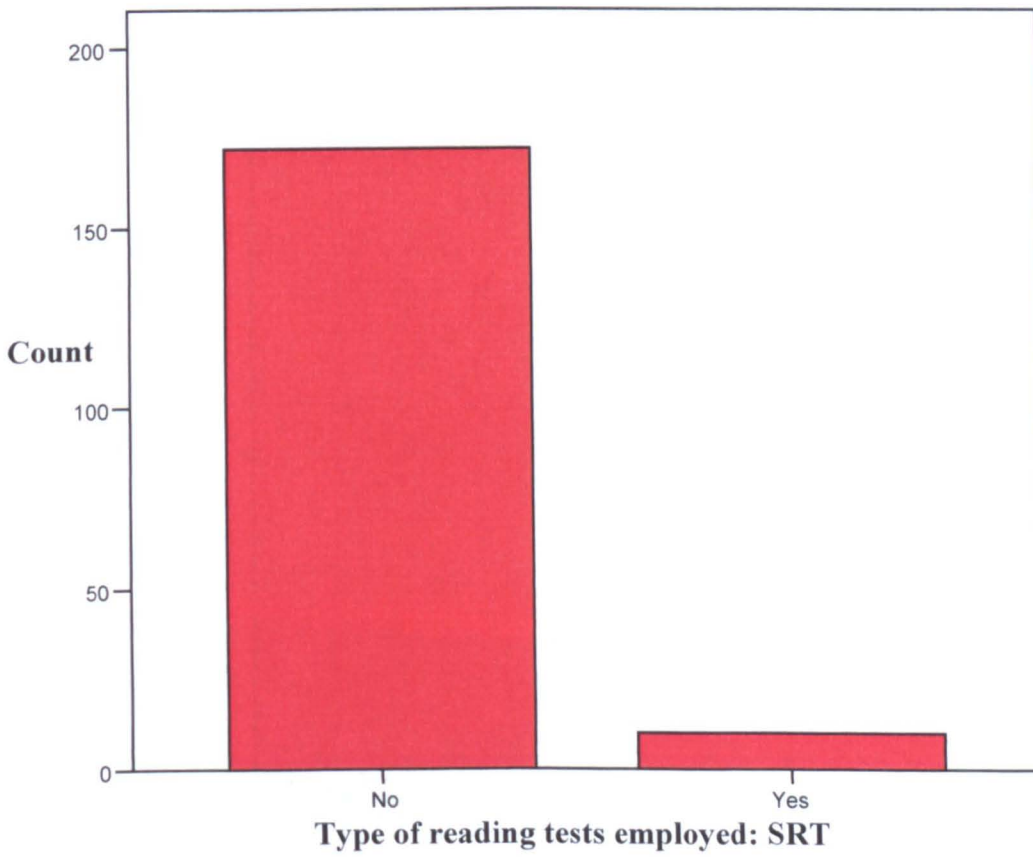
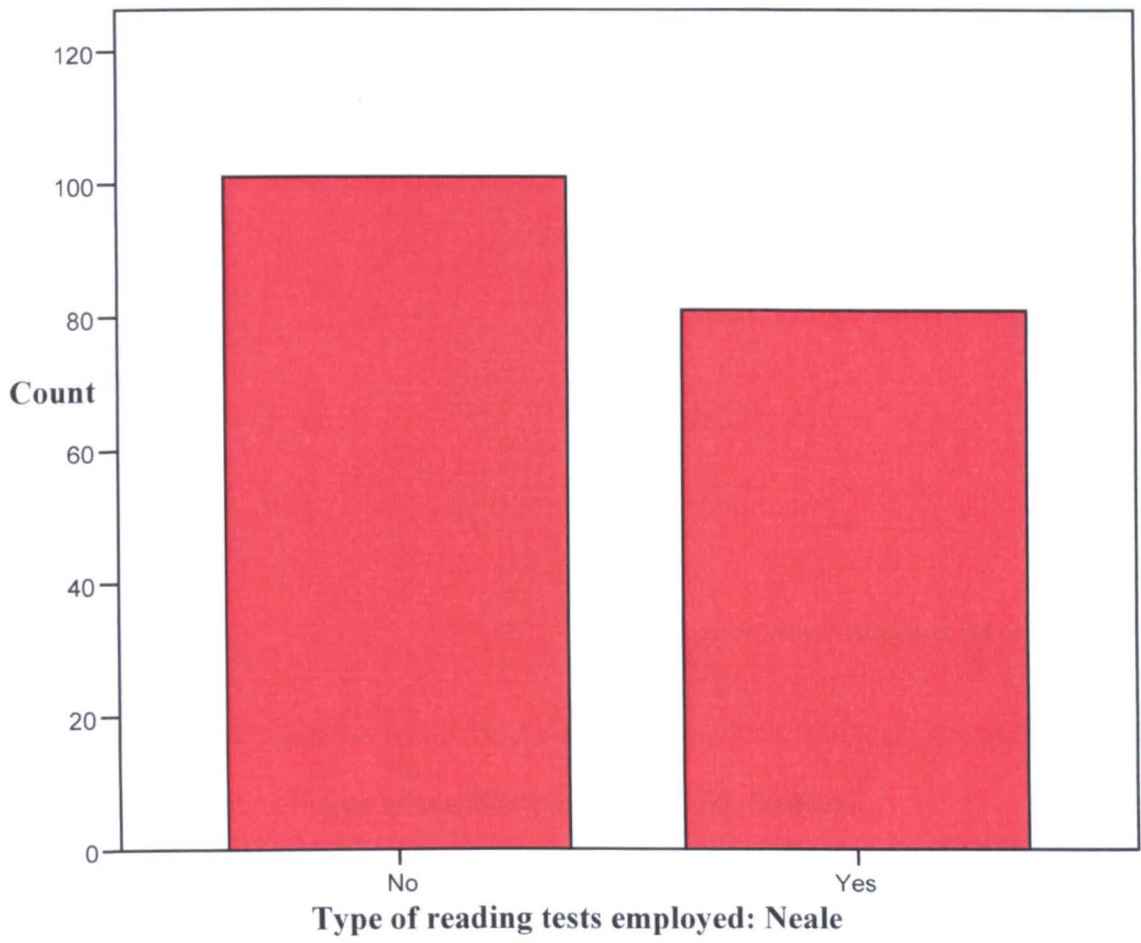
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	118	64.8	64.8	64.8
Yes	64	35.2	35.2	100.0
Total	182	100.0	100.0	

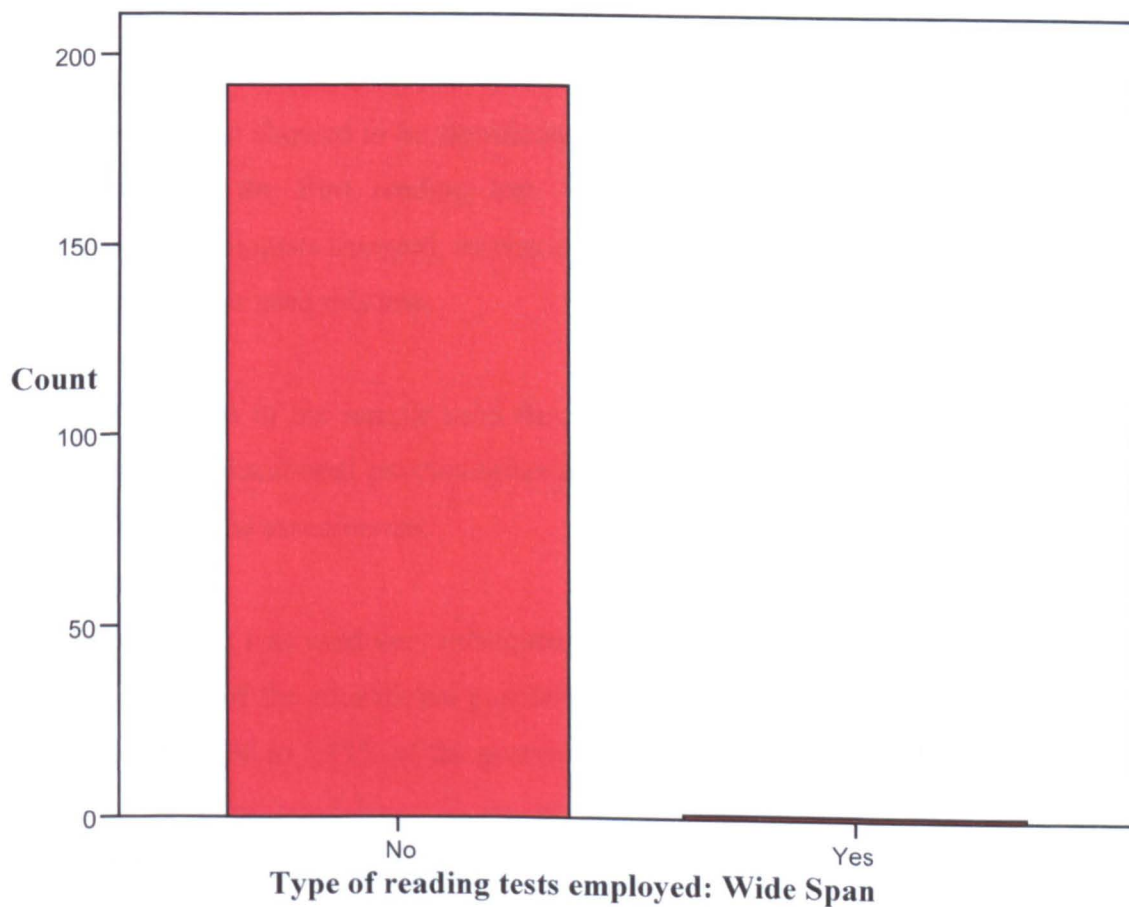
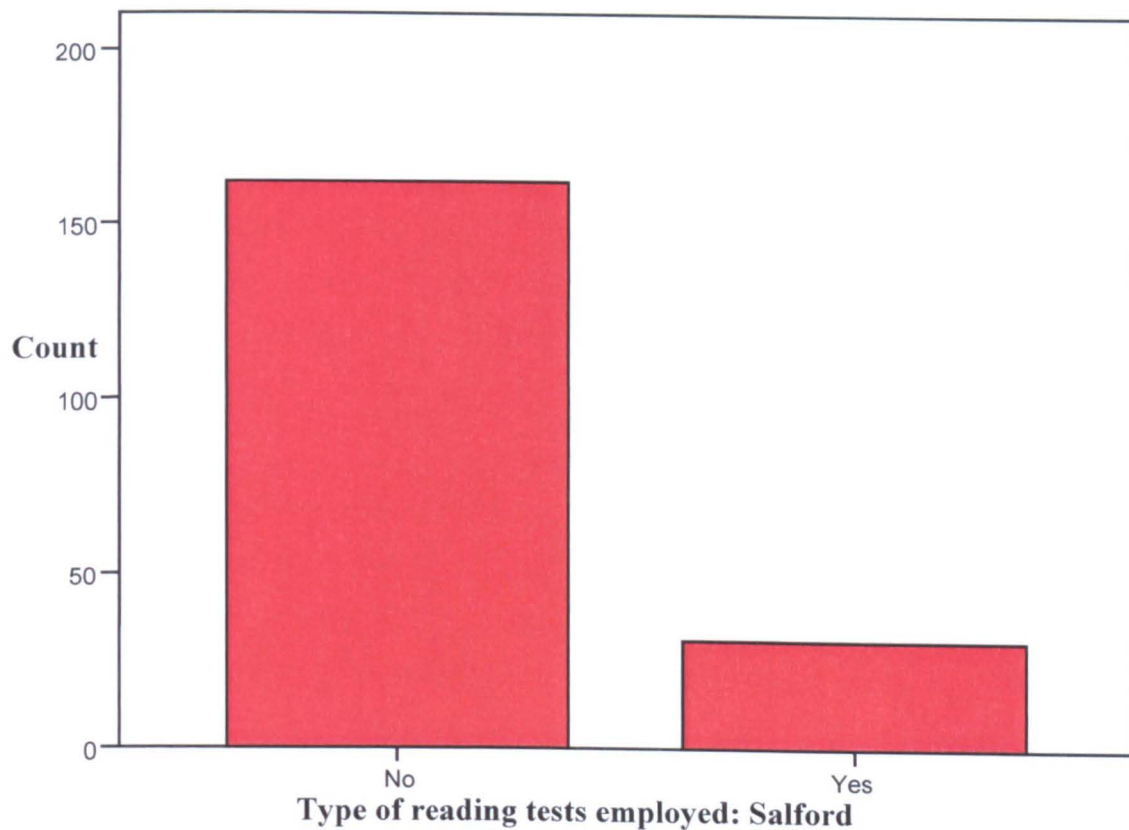
18b.

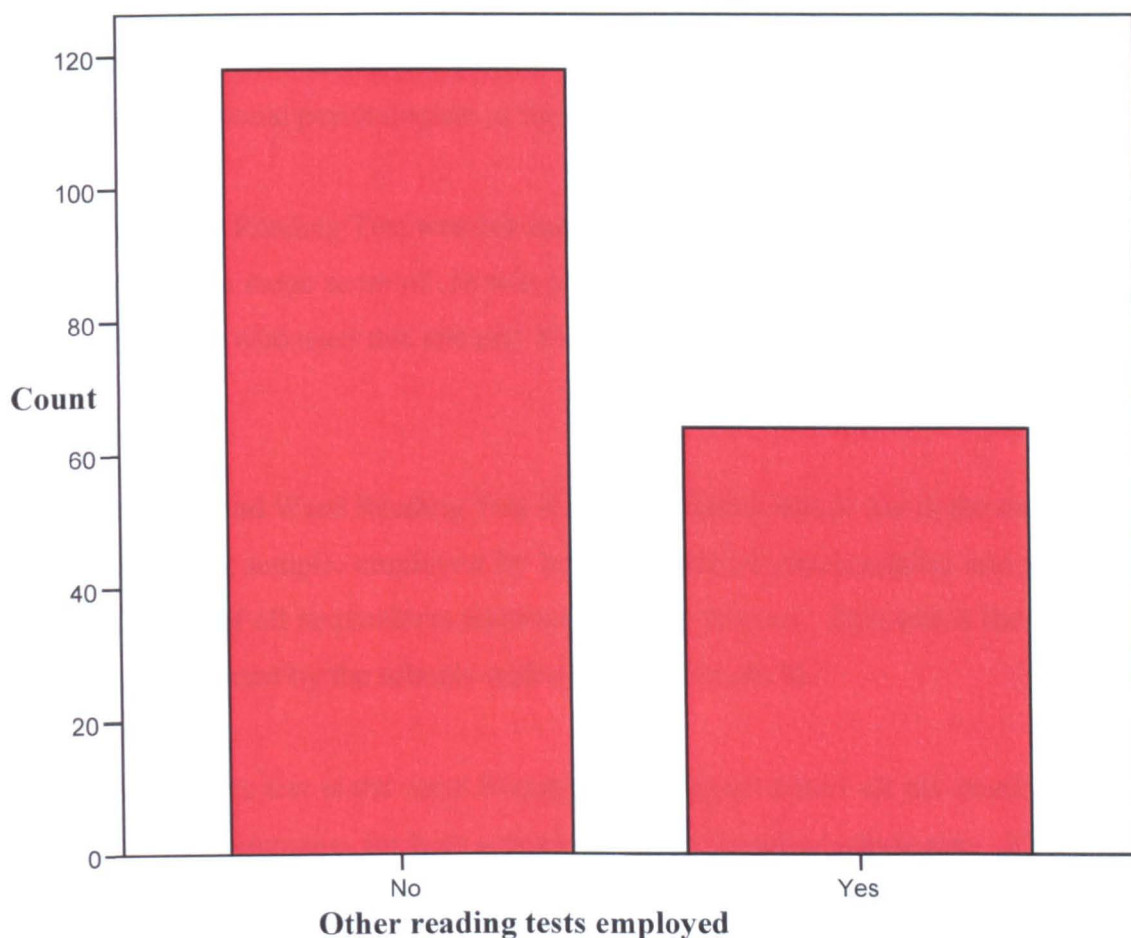












18c.

No one reading test showed to be significantly more popular than others. 5.2% of the respondents used the Burt reading test. This test was not used by any of the educational psychologists sampled, so was exclusive to the schools assessor, 5.68% of the sampled schools used this test.

A larger proportion of the sample used the Suffolk test, 18%, but again this test was not used by the educational psychologists sampled. The schools sampled used this test in 19.89% of the assessments.

The Edinburgh test was used very infrequently with 4.63% of the sample admitting to using it and none of the educational psychologists employing this test. The sample of schools used this test in 5.11% of the assessments.

The Word Recognition test or WRT test was used more extensively by the educational psychologists in the sample than the schools, with a mean score of .33 for the

educational psychologists to .08 to the schools, this equates to 10.3% of the overall sample admitting to using the WRT test. This test was the second most popular test used by the educational psychologists in the sample.

The Young Group Reading Test was not used by any of the educational psychologists in the sample but a mean score of .16 was achieved by the schools. This is 14.94% of the overall sample who used this test and 16.4% of the schools in the sample that used this test.

The Schonell Graded Word Reading Test is a more popular test in use in the diagnosis of dyslexia in this sample, employed by both educational psychologists and schools assessors. 33.5% of all respondents admitted to using this test. This test is the second most popular test used by the schools with a mean score of .36.

The Neale Analysis test is the most frequently employed test of all the reading tests named in the questionnaire, for both schools and educational psychologists. This was the most popular test with mean scores of .43 and .44 respectively. This as a percentage was 42.78% of the whole sample using the Neale Analysis test. It would appear that this test was widely available to the schools assessor, whereas some of the other tests may not be so readily available to “lay” assessors. Results could be affected by the availability of some of the tests to the schools involved in the sample.

The Standard Reading Test or SRT was not employed by any of the educational psychologists and by only a small percentage of the schools, at 5.15% of the whole sample and 5.68% of the schools sampled.

The Durrell Analysis of Reading Difficulty was not used by any of the respondents to the questionnaire.

The Salford Sentence Reading Test was used by both educational psychologists and schools assessors. A very small number of educational psychologists used this test with a mean of .06. 16.49% of the whole sample used the Salford Sentence Reading Test. A larger number of schools employed this test with a mean score of .18.

No schools employed the Wide Span Reading Test, but this was used by the educational psychologist, that is 5.55% of the educational psychologists and 0.51% of the whole sample population.

A range of other reading tests were named by the sample. It was more likely that the educational psychologists used an alternative test to those detailed in the questionnaire. The schools in the survey however, used a wider range of tests than the educational psychologists.

The mean score of the educational psychologists who used alternative tests was .61 compared to .33 of the schools. 35.56%, of the respondents to the questionnaire, said that they used tests other than those sighted in the questionnaire. No details of which tests were used were asked for in the questionnaire, and some respondents used more than one test. It is not possible to say from the results whether more than one test is used with any one child, or the criteria for using a particular test with a particular child.

19a. What spelling test/s do you use? (Open question)

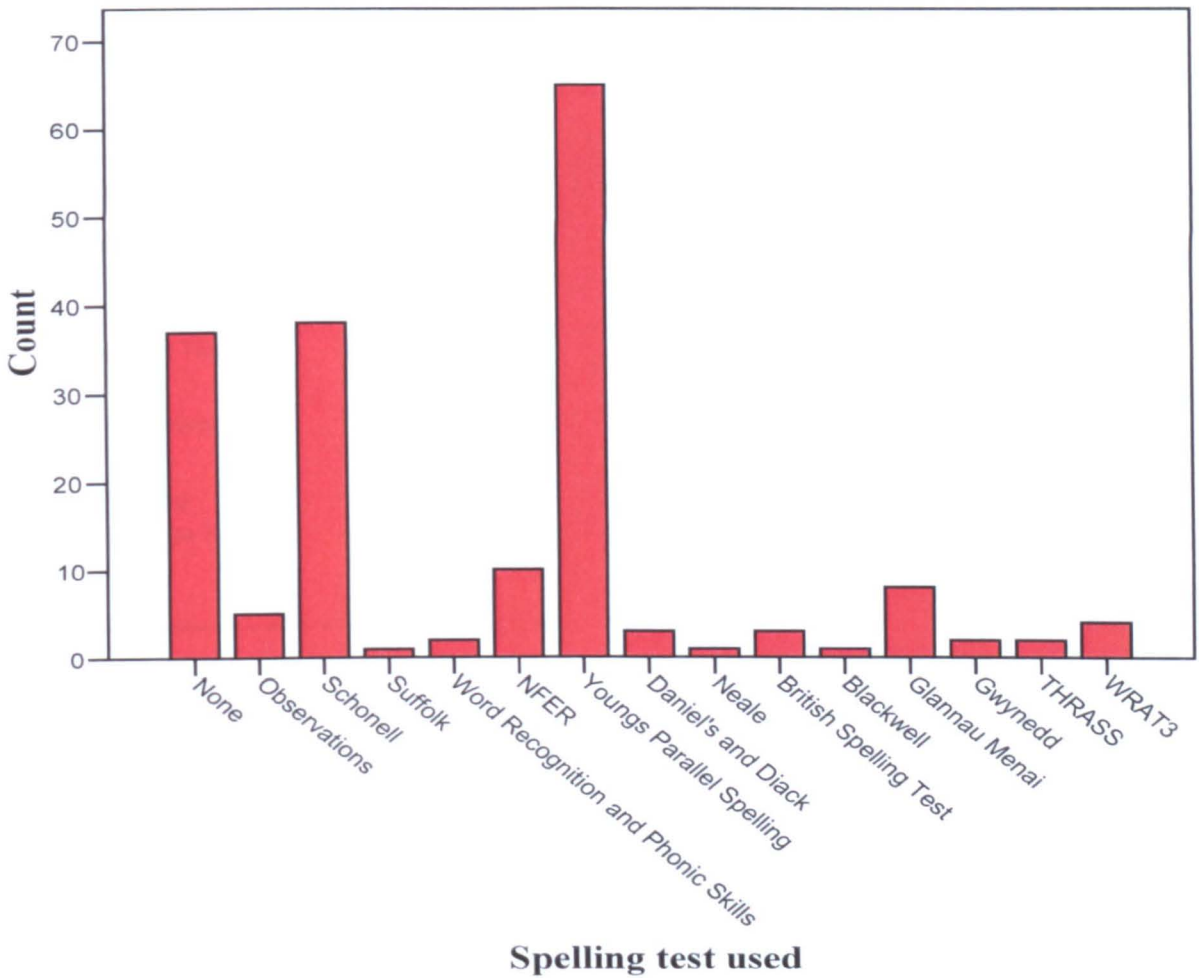
Spelling Test Used

	Observed N	Expected N	Residual
None	39	12.1	26.9
Observations	5	12.1	-7.1
Schonell	38	12.1	25.9
Suffolk	1	12.1	-11.1
Word Recognition and Phonic Skills	8	12.1	-4.1
NFER	10	12.1	-2.1
Youngs Parallel Spelling	65	12.1	52.9
Daniel's and Diack	3	12.1	-9.1
Neale	1	12.1	-11.1
British Spelling Test	4	12.1	-8.1
Blackwell	1	12.1	-11.1
Glannau Menai	8	12.1	-4.1
Gwynedd	2	12.1	-10.1
THRASS	2	12.1	-10.1
WRAT3	6	12.1	-6.1
Word and BAS	1	12.1	-11.1
Total	194		

Spelling Test Used

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	37	20.3	20.3	20.3
Observations	5	2.7	2.7	23.1
Schonell	38	20.9	20.9	44.0
Suffolk	1	.5	.5	44.5
Word Recognition and Phonic Skills	2	1.1	1.1	45.6
NFER	10	5.5	5.5	51.1
Youngs Parallel Spelling	65	35.7	35.7	86.8
Daniel's and Diack	3	1.6	1.6	88.5
Neale	1	.5	.5	89.0
British Spelling Test	3	1.6	1.6	90.7
Blackwell	1	.5	.5	91.2
Glannau Menai	8	4.4	4.4	95.6
Gwynedd	2	1.1	1.1	96.7
THRASS	2	1.1	1.1	97.8
WRAT3	4	2.2	2.2	100.0
Total	182	100.0	100.0	

19b.



19c.

Spelling tests were used more frequently by the educational psychologists, with a mean of 6.89, compared to 4.23 with the schools.

One test was used significantly more frequently than would be expected by chance alone, that is the Young's Parallel Spelling Test. 33.5% of the sample sighted Young's Parallel Spelling Test as being used in their assessment, and 19.58% used Schonell. It is not possible to say from the data to say if more than one test is used on any individual child, or why one test is used more than another. Some of the other tests mentioned are the Suffolk, Neale, Blackwell, Word and BAS. These were only quoted by one respondent each test that is 0.5% of the sample. 20.1% of the respondents claimed that no spelling tests were used in their assessments.

20a. What writing test/s do you use? (Open question)

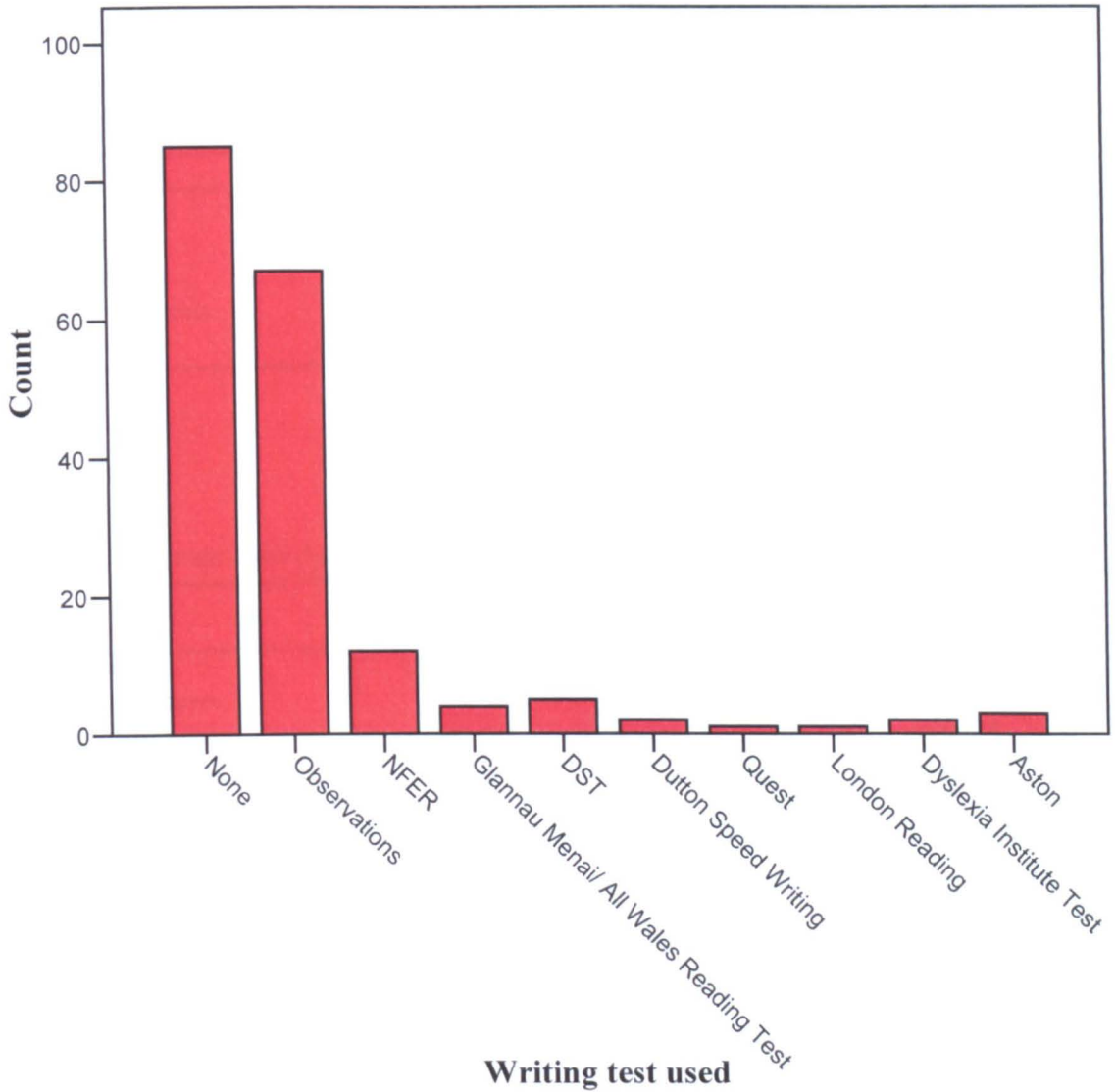
Writing Test Used

	Observed N	Expected N	Residual
None	89	19.4	69.6
Observations	74	19.4	54.6
NFER	12	19.4	-7.4
Glannau Menai/ All Wales Reading Test	4	19.4	-15.4
DST	5	19.4	-14.4
Dutton Speed Writing	2	19.4	-17.4
Quest	1	19.4	-18.4
London Reading	1	19.4	-18.4
Dyslexia Institute Test	2	19.4	-17.4
Aston	4	19.4	-15.4
Total	194		

Writing Test Used

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid None	85	46.7	46.7	46.7
Observations	67	36.8	36.8	83.5
NFER	12	6.6	6.6	90.1
Glannau Menai/ All Wales Reading Test	4	2.2	2.2	92.3
DST	5	2.7	2.7	95.1
Dutton Speed Writing	2	1.1	1.1	96.2
Quest	1	.5	.5	96.7
London Reading	1	.5	.5	97.3
Dyslexia Institute Test	2	1.1	1.1	98.4
Aston	3	1.6	1.6	100.0
Total	182	100.0	100.0	

20b.



20c.

Writing tests or assessments are used equally by the educational psychologists and the schools assessors, with 45.8% of the sample using no writing assessment at all.

38% of the sample assessed writing by observations of children's handwriting, with no specific test results taken. The most popular test used was NFER with 6.18% of the sample employing this test. Specific testing was only undertaken by 15.97% of the sample.

21a. Please tick if the assessment is carried out in one session
Two sessions
More than two sessions

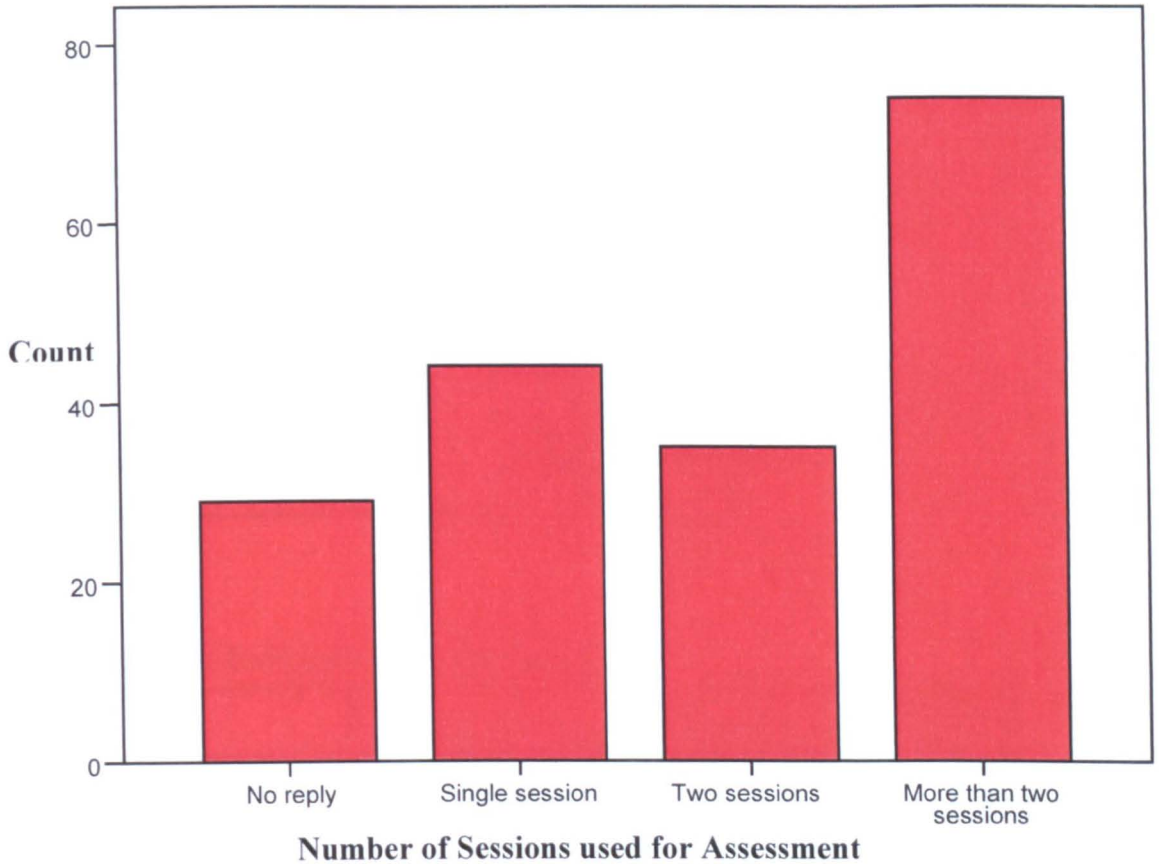
Number of Sessions used for Assessment

	Observed N	Expected N	Residual
No reply	31	48.5	-17.5
Single session	53	48.5	4.5
Two sessions	35	48.5	-13.5
More than two sessions	75	48.5	26.5
Total	194		

Number of Sessions used for Assessment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No reply	29	15.9	15.9	15.9
	Single session	44	24.2	24.2	40.1
	Two sessions	35	19.2	19.2	59.3
	More than two sessions	74	40.7	40.7	100.0
	Total	182	100.0	100.0	

21b.



21c.

Seventy-five respondents or 38.65% of the sample gave more than one session for the assessment of dyslexia; as many as 27.3% of the sample, however, assess the condition on the strength of one session alone. The mean score of 1.86 sessions as employed by the school and 1.71 sessions as employed by the educational psychologists could reflect the greater availability of the assessor to the child by the school than by the educational psychologists, and the costs involved. 56.7% of the respondents, however, used more than one session for assessment, which is highly significant and unlikely to have occurred by chance alone.

22a. What happens to the report following assessment? (Open question)

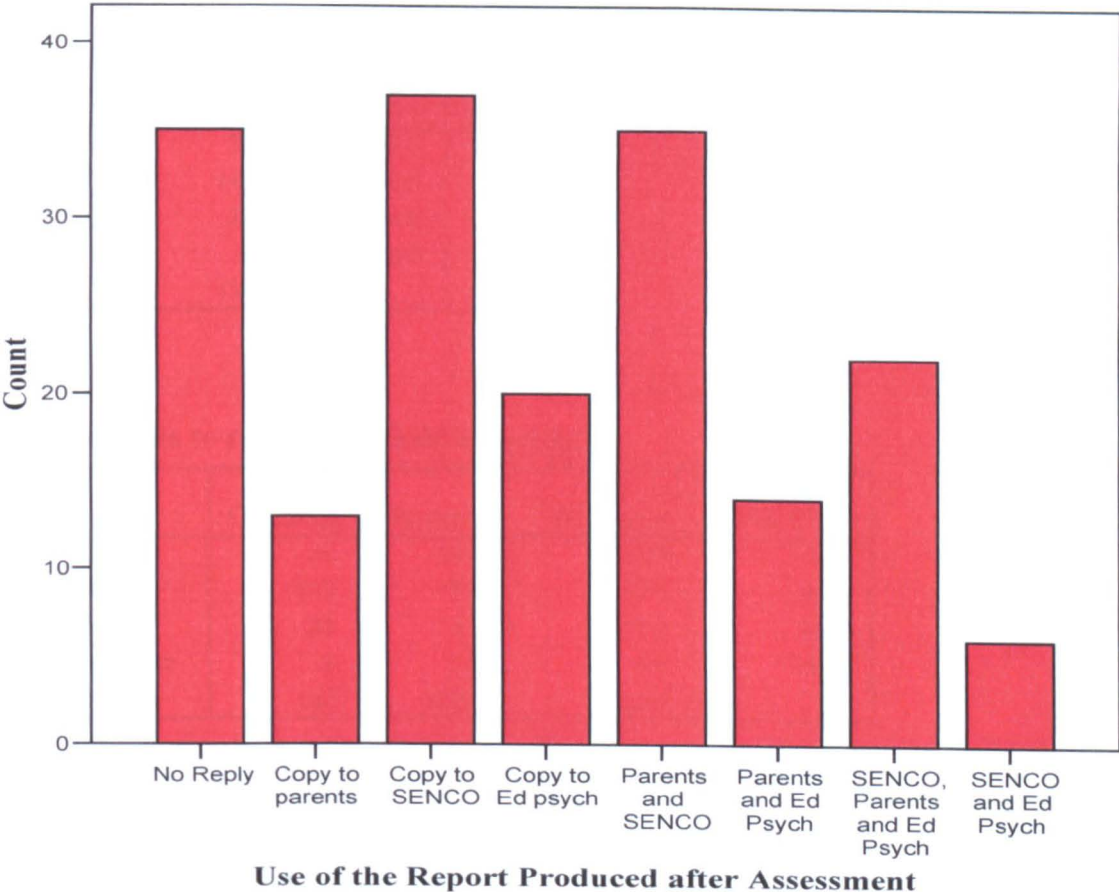
Use of the Report Produced after Assessment

	Observed N	Expected N	Residual
No Reply	36	21.6	14.4
Copy to parents	14	21.6	-7.6
Copy to SENCO	37	21.6	15.4
Copy to Ed psych	20	21.6	-1.6
Parents and SENCO	39	21.6	17.4
Parents and Ed Psych	15	21.6	-6.6
SENCO, Parents and Ed Psych	23	21.6	1.4
SENCO and Ed Psych	6	21.6	-15.6
SENCO, Parents, LEA	4	21.6	-17.6
Total	194		

Use of the Report Produced after Assessment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No Reply	35	19.2	19.2	19.2
Copy to parents	13	7.1	7.1	26.4
Copy to SENCO	37	20.3	20.3	46.7
Copy to Ed psych	20	11.0	11.0	57.7
Parents and SENCO	35	19.2	19.2	76.9
Parents and Ed Psych	14	7.7	7.7	84.6
SENCO, Parents and Ed Psych	22	12.1	12.1	96.7
SENCO and Ed Psych	6	3.3	3.3	100.0
Total	182	100.0	100.0	

22b.



22c.

A range of eight differing replies were received as to what happened to the report following assessment. All those who replied responded that either the Special Educational Needs Co-ordinator (SENCO), Educational psychologist, parent or Local Education Authority (LEA), or a combination of these was the destination of the report. Educational psychologists made more varied use of the assessments than the schools assessors, and most commonly reports are sent to parents and SENCO's, or just the SENCO. The percentage of respondents who inform the LEA is very small, at only 2% of the sample. 51.3% of the sample ensured that parents had a copy of the report. 56.16% of the sample ensured that the schools' SENCO received a report.

23a. Do you make efforts to reduce the child's anxiety before talking the test?

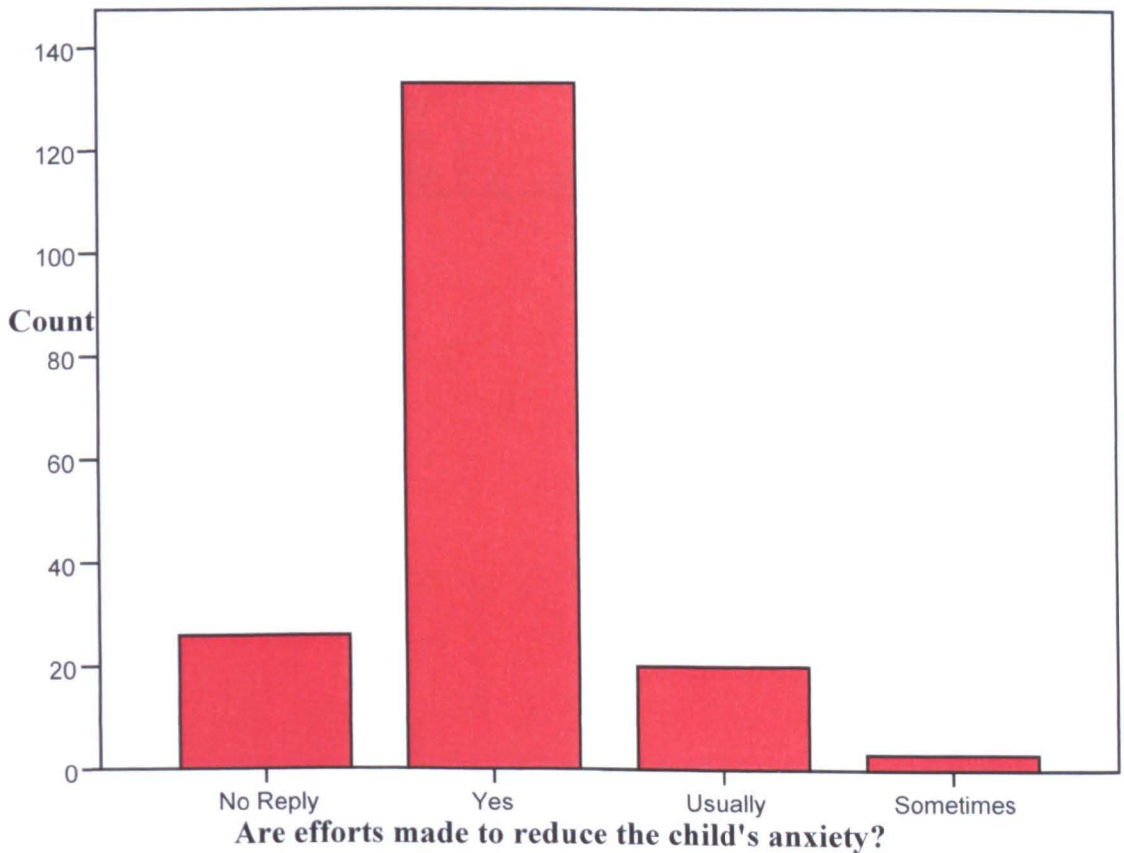
Are efforts made to reduce the child's anxiety?

	Observed N	Expected N	Residual
No Reply	28	48.5	-20.5
Yes	143	48.5	94.5
Usually	20	48.5	-28.5
Sometimes	3	48.5	-45.5
Total	194		

Are efforts made to reduce the child's anxiety?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Reply	26	14.3	14.3	14.3
	Yes	133	73.1	73.1	87.4
	Usually	20	11.0	11.0	98.4
	Sometimes	3	1.6	1.6	100.0
	Total	182	100.0	100.0	

23b.



23c.

The entire sample, who replied to this question, that is 166 respondents, or 85.56% of the whole sample, stated that at least some efforts were made to reduce the child's anxiety levels. 73.71% of the whole samples say that they always make efforts to reduce the child's anxiety levels; with a further 11.85% of those who replied who usually or sometimes take account of the child's anxiety level.

24a. Do regular reviews of the child's performance/ progress take place?

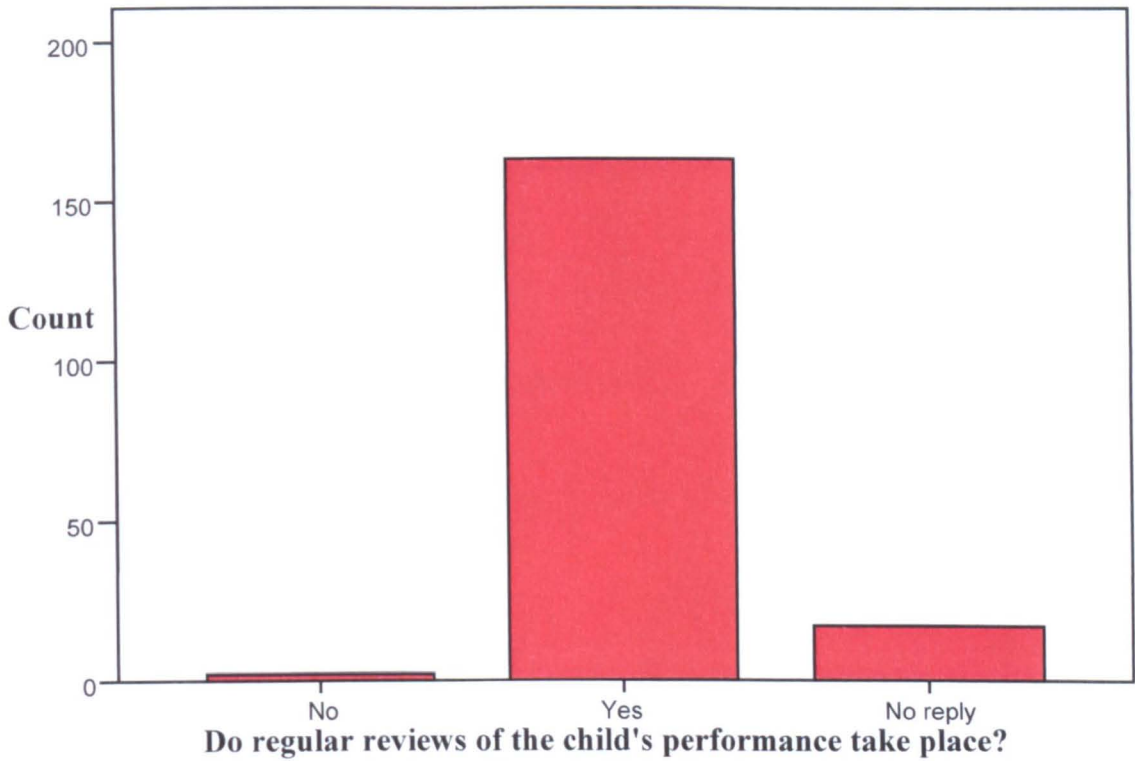
Do regular reviews of the child's performance take place?

	Observed N	Expected N	Residual
No	8		-56.7
Yes	169	64.7	104.3
No reply	17	64.7	-47.7
Total	194		

Do regular reviews of the child's performance take place?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	2	1.1	1.1	1.1
Yes	163	89.6	89.6	90.7
No reply	17	9.3	9.3	100.0
Total	182	100.0	100.0	

24b.



24c.

A large percentage of the sample, 87.11%, did have regular reviews of the child's performance. This percentage is increased again, by looking at the entire sample who replied to this question, to 90.86%. This is highly significant and unlikely to have been caused by chance alone.

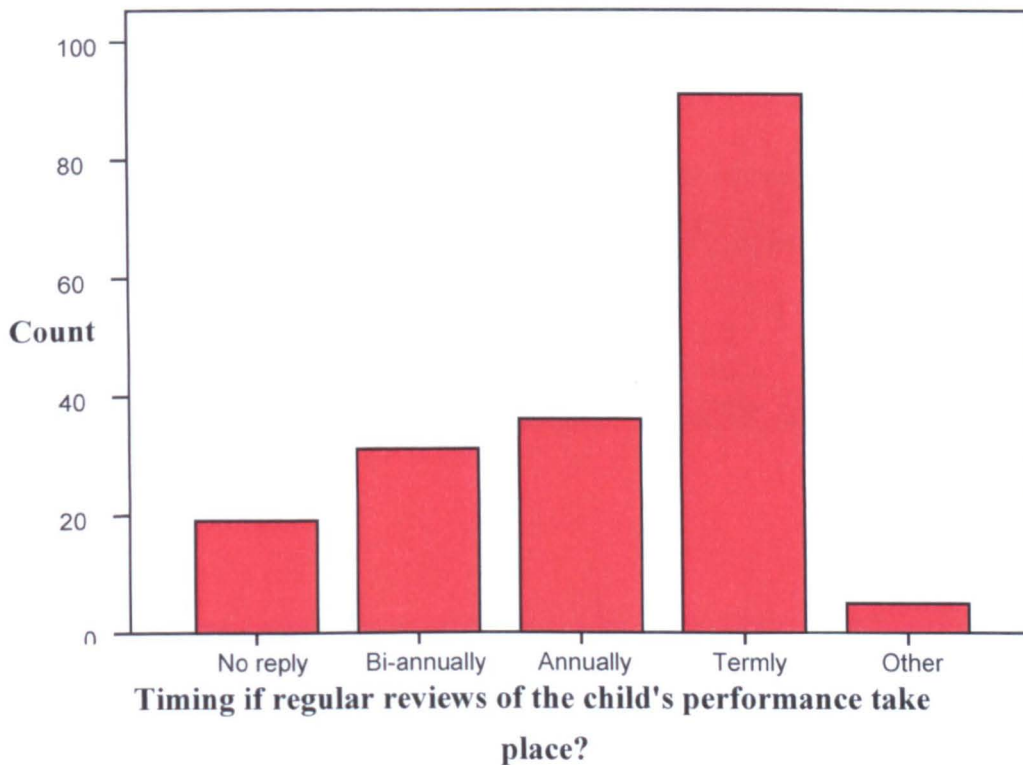
Mean scores indicate that schools are more inclined to review regularly than the educational psychologists, this may indicate that they have greater access to the child than the educational psychologists, and there may be cost implications to account for the mean difference of 1.09 for the educational psychologists and .67 for the schools.

25a. How frequently do these reviews take place?

Timing if regular reviews of the child's performance take place?

	Observed N	Expected N	Residual
No reply	24	38.8	-14.8
Bi-annually	33	38.8	-5.8
Annually	37	38.8	-1.8
Termly	93	38.8	54.2
Other	7	38.8	-31.8
Total	194		

25b.



25c.

Most reviews, when they do take place, are conducted on a termly basis, which could reflect the increased numbers of school reviews, with 47.94% of the sample reviewing on a termly basis. Annual and bi-annual reviews account for 36.08% of the respondents. Small percentages of the sample, 3.61% gave “other” as their review schedule, but were not asked in the questionnaire to specify what that might be. Mean scores show that schools review more regularly than the educational psychologists, which could reflect greater accessibility.

5.2.4. Definition Questions

26a. In your opinion, is dyslexia a medical or an educational matter?

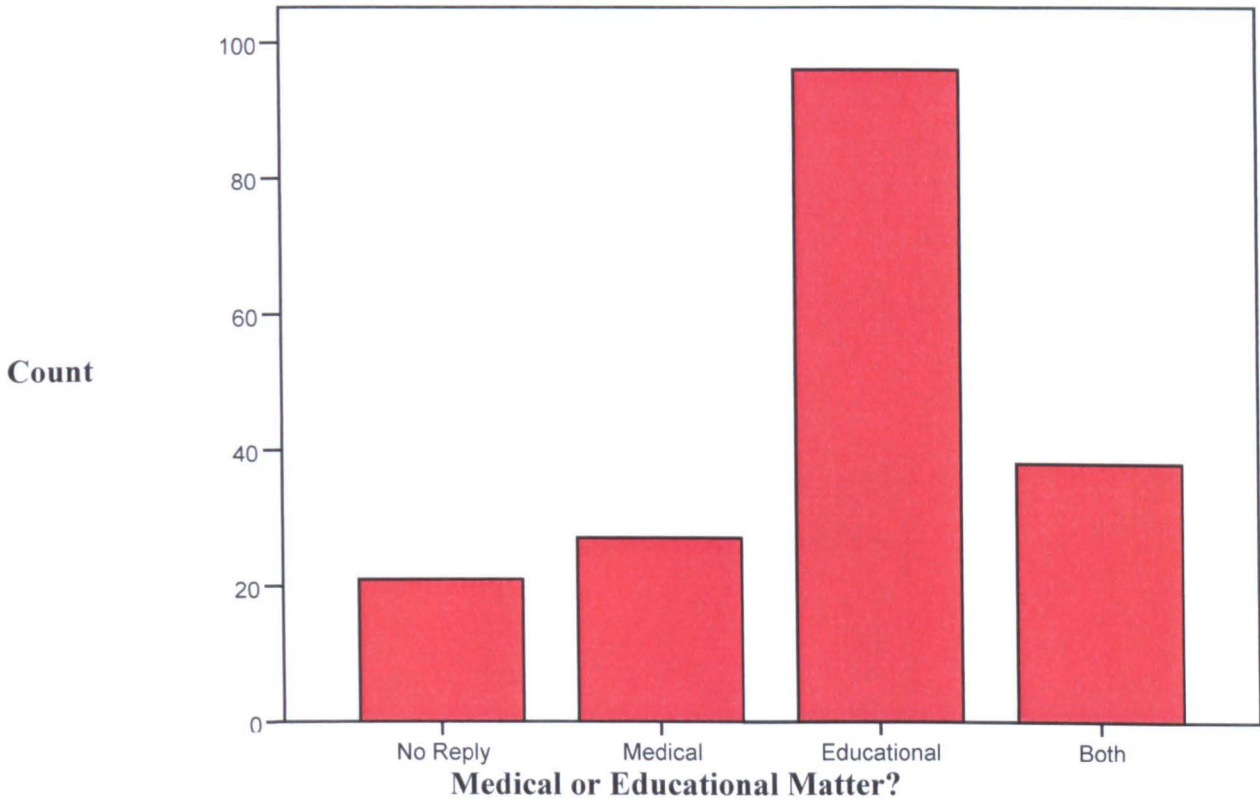
Medical or educational matter?

	Observed N	Expected N	Residual
No Reply	22	48.5	-26.5
Medical	27	48.5	-21.5
Educational	102	48.5	53.5
Both	43	48.5	-5.5
Total	194		

Medical or educational matter?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Reply	21	11.5	11.5	11.5
	Medical	27	14.8	14.8	26.4
	Educational	96	52.7	52.7	79.1
	Both	38	20.9	20.9	100.0
	Total	182	100.0	100.0	

26b.



26c.

The respondents to this survey overwhelmingly saw dyslexia as an educational matter. 52.57% saw dyslexia as an educational matter, compared with 13.92% who saw it as a medical matter, and 22.16% who saw it as both. If the members of the sample indicated that it was purely or partially an educational matter, this could imply that they believe that it is a condition that can be “cured”, given the right educational environment. Mean scores indicate that more educational psychologists (mean score 2.28) saw this as an educational matter than the schools assessors (1.81 mean score)

27a In your opinion can dyslexia be diagnosed accurately?

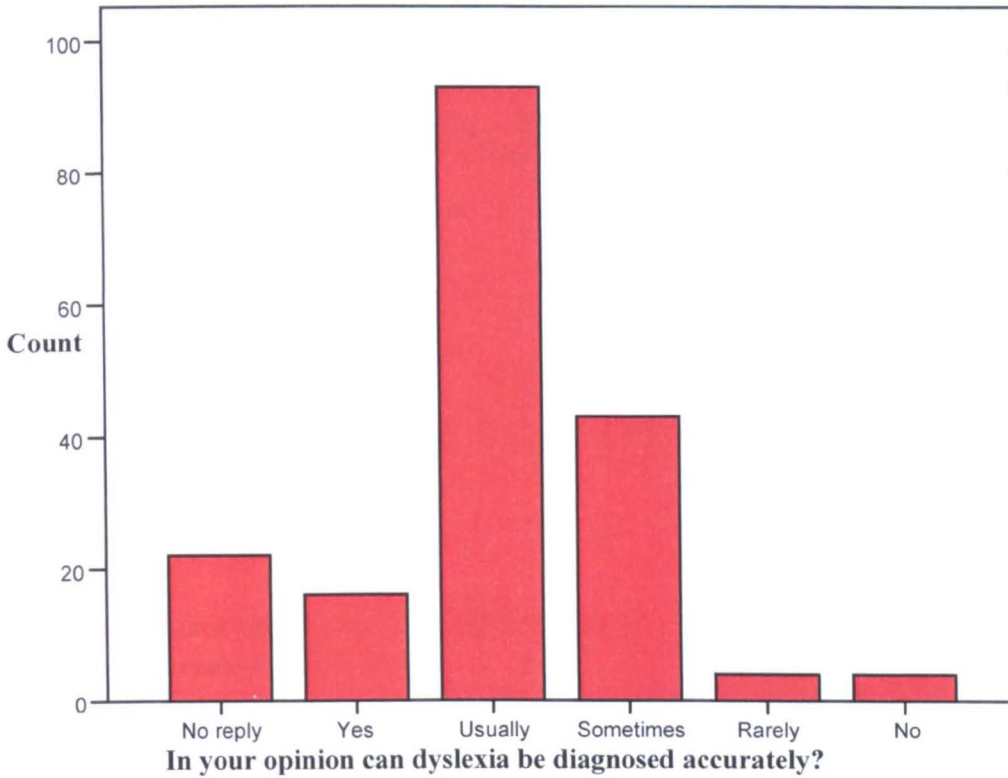
In your opinion can dyslexia be diagnosed accurately?

	Observed N	Expected N	Residual
No reply	25	32.3	-7.3
Yes	18	32.3	-14.3
Usually	100	32.3	67.7
Sometimes	43	32.3	10.7
Rarely	4	32.3	-28.3
No	4	32.3	-28.3
Total	194		

In your opinion can dyslexia be diagnosed accurately?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No reply	22	12.1	12.1	12.1
Yes	16	8.8	8.8	20.9
Usually	93	51.1	51.1	72.0
Sometimes	43	23.6	23.6	95.6
Rarely	4	2.2	2.2	97.8
No	4	2.2	2.2	100.0
Total	182	100.0	100.0	

27b.



27c.

Mean scores indicate that schools are more confident that dyslexia can be accurately diagnosed than the educational psychologists, although not significantly so, 2.01 to 1.61 mean scores. The replies “yes, usually and sometimes” far outweigh the negative replies (89.11% to 1.55% with 11.34% no replies) Confidence in the diagnosis however, is low, with only 18 respondents or 9.28% of the total sample indicating confidently that dyslexia can be accurately diagnosed.

28a. In your opinion is it possible to separate dyslexia from other more general reading difficulties?

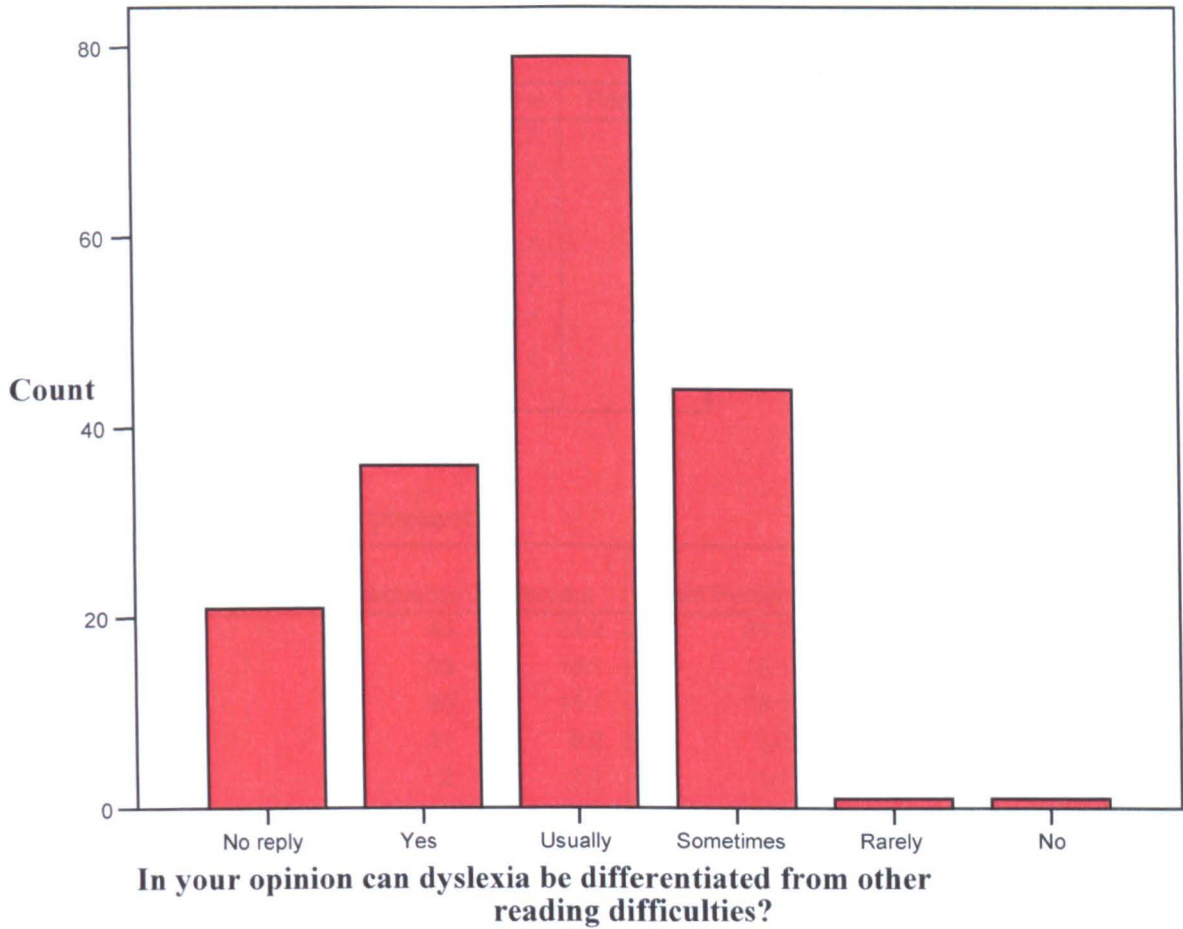
In your opinion can dyslexia be differentiated from other reading difficulties?

	Observed N	Expected N	Residual
No reply	22	27.7	-5.7
Yes	38	27.7	10.3
Usually	87	27.7	59.3
Sometimes	44	27.7	16.3
Rarely	1	27.7	-26.7
No	1	27.7	-26.7
Total	194		

In your opinion can dyslexia be differentiated from other reading difficulties:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No reply	21	11.5	11.5	11.5
Yes	36	19.8	19.8	31.3
Usually	79	43.4	43.4	74.7
Sometimes	44	24.2	24.2	98.9
Rarely	1	.5	.5	99.5
No	1	.5	.5	100.0
Total	182	100.0	100.0	

28b.



28c.

Mean scores indicate that educational psychologists are more inclined to believe that dyslexia **can** be differentiated from other reading difficulties. Positive replies of “Yes, Usually and sometimes|” account for 877.11% of the whole sample. Negative replies of ‘rarely’, and ‘no’, account for only 1.03% of the sample. Most respondents believe that dyslexia can usually be differentiated from other reading difficulties, with 44.85% of the sample. The confidence of the educational psychologists in this instant is probably predictable, given their higher level of training and use of diagnostic tools, than the schools assessors.

29a. How many signs need to be present before you diagnose dyslexia? (Open question)

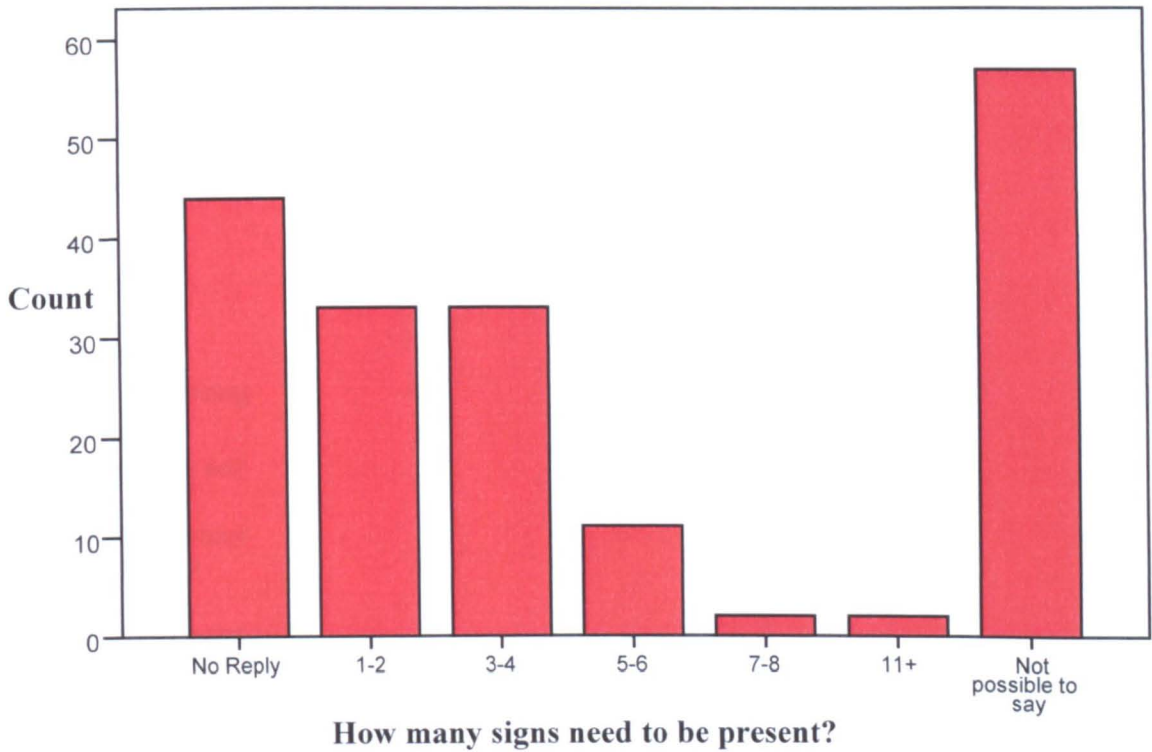
How many signs need to be present?

	Observed N	Expected N	Residual
No Reply	48	27.7	20.3
1-2	35	27.7	7.3
3-4	36	27.7	8.3
5-6	11	27.7	-16.7
7-8	2	27.7	-25.7
11+	2	27.7	-25.7
Not possible to say	60	27.7	32.3
Total	194		

How many signs need to be present?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Reply	44	24.2	24.2	24.2
	1-2	33	18.1	18.1	42.3
	3-4	33	18.1	18.1	60.4
	5-6	11	6.0	6.0	66.5
	7-8	2	1.1	1.1	67.6
	11+	2	1.1	1.1	68.7
	Not possible to say	57	31.3	31.3	100.0
	Total	182	100.0	100.0	

29b.



29c.

Respondents seemed to find the number of signs that needed to be present, before a diagnosis can be made, a difficult question to answer, and the majority of the sample replied “not possible” or “no reply” 55.67%. The respondents who did give a figure for the number of signs needing to be present indicated between ‘one and two’ or ‘three and four’, together these accounted for 36.6% of the sample. Some respondents indicated that more than eleven signs were needed before dyslexia could be diagnosed. Educational psychologists tended to need more signs, before they were prepared to give a diagnosis, than the school assessors.

30a. Do you attach greater significance to some signs rather than others?

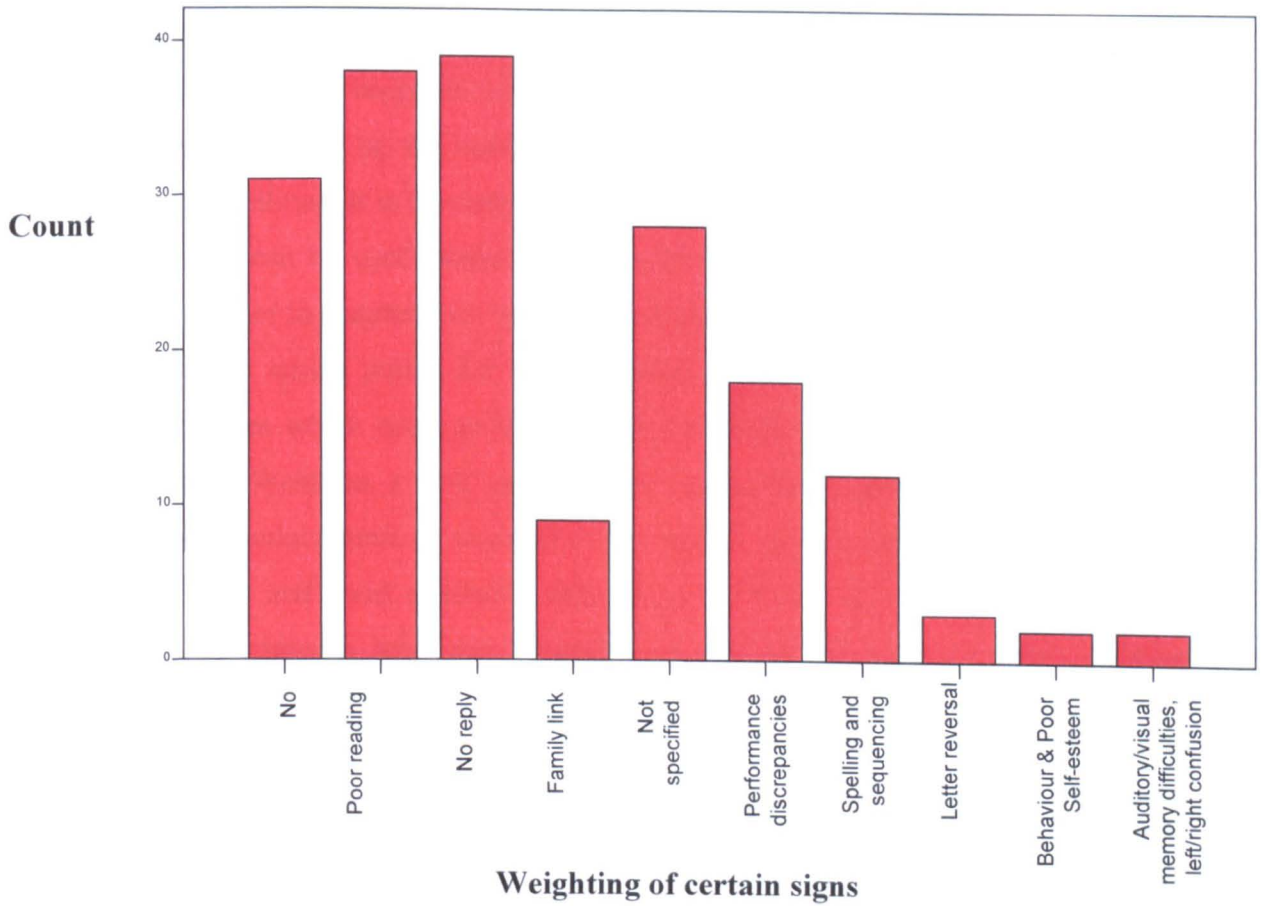
Weighting of certain signs

	Observed N	Expected N	Residual
No	35	17.6	17.4
Poor reading	38	17.6	20.4
No reply	43	17.6	25.4
Family link	9	17.6	-8.6
Yes unspecified	28	17.6	10.4
Performance discrepancies	21	17.6	3.4
Spelling and sequencing	12	17.6	-5.6
Letter reversal	3	17.6	-14.6
Behaviour and poor self esteem	2	17.6	-15.6
Auditory,/visual memory difficulties, left/ right confusion	2	17.6	-15.6
Short term memory and writing	1	17.6	-16.6
Total	194		

Weighting of certain signs

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	31	17.0	17.0	17.0
Poor reading	38	20.9	20.9	37.9
No reply	39	21.4	21.4	59.3
Family link	9	4.9	4.9	64.3
Yes unspecified	28	15.4	15.4	79.7
Performance discrepancies	18	9.9	9.9	89.6
Spelling and sequencing	12	6.6	6.6	96.2
Letter reversal	3	1.6	1.6	97.8
Behaviour and poor self esteem	2	1.1	1.1	98.9
Auditory,/visual memory difficulties, left/ right confusion	2	1.1	1.1	100.0
Total	182	100.0	100.0	

30b.



30c.

When asked whether they attached greater weighting to some signs than others, ten differing signs were stated as attracting greater significance, with 18.04% of the sample attaching greater significance to one sign than to others.

Some respondents replied that they did attach greater significance to one sign than others, but did not specify which that was. Negative replies of ‘no’ and ‘no reply’ accounted for 40.21% of the sample, with poor reading as the most commonly sighted weighting of the signs. All but one of the signs stated was concerned with reading, writing or academic skills, but 4.64% of the sample sighted familial links, suggesting a genetic or medical indicator. Behaviour and self-esteem were suggested by only two respondents to the questionnaire, as being strongly indicative of the presence of dyslexia.

5.2 Conclusion

The results from the analysis of the questionnaire provide a wealth of data, some of which it is beyond the scope of one study to explore. In particular, questions related to a standard definition of the condition of dyslexia do lend themselves to further research possibilities. It is inevitable that in a paper such as this more material will be gathered than can be used, however, the results as depicted in this chapter will be discussed further in chapter five, with a closer analysis of the data and its implication for the way in which policy for special educational needs is formulated in Wales. Particular issues which come to the fore are the Welsh language question, and how children with Welsh as a first language are treated and supported; the concept of dyslexia as an educational or medical model and the variety and diversity of policies within schools and local education authorities in Wales, for the identification and provision of children who are identified as having dyslexia or have dyslexic tendencies. These issues will be discussed and scrutinised in chapters five and six.

The data gleaned in this chapter, however is only part of the story, and in the next chapter the researcher will discuss the results of the interview stage of the research. As a consequence of the results found in this chapter, an interview schedule was compiled, to investigate further aspects of the policy formulation and implementation within the schools and authorities in Wales. These results were used as a basis for the formulation of the interview schedule. The policy makers and managers within the twenty-two Welsh local education authorities were all invited to take part in the research and the results of this section of the primary research are detailed in the following chapter (chapter 6).

Chapter 6

Survey of Local Education Authorities and Policy Makers in Wales:

Prevalence and Policy of Dyslexia in Wales

“I love to lose myself in other men’s minds. When I am not walking, I am reading; I cannot sit and think. Books think for me.” [Id. ‘Detached thoughts on books and reading’] Charles Lamb 1775-1834.

Introduction

6.1 Methodology

6.1.1.Data collection methodology

6.1.2.Format of Interview Schedule

6.1.3.Response Rate

6.1.4.Question selection

6.1.5.Presentation of Interviews

6.1.6.Analysis Employed

6.2 Presentation Of Data

6.3 Conclusion

Introduction

The following chapter is the second part of the research story, and is largely qualitative in nature. The objectives of this part of the primary research were to examine the policies concerning dyslexia from the viewpoint of the policy makers. Policy devised from the top needs to be in place to filter down to the classroom setting, and hence to the support of the individual child. No matter how hard teachers work to support and guide their children on a day-to-day basis, the financial wherewithal, to give children the best chance to overcome their disabilities and to deal with the challenges that they face, must come from a government source. This source is unlikely to be available until clear policies and understanding are put into practice at managerial level. Only then will the identification, intervention and emotional

development of children with dyslexia be put into place, supporting teachers and giving them the reassurance that they need to drive through new and innovative methods of working with these most vulnerable children.

6.1. Methodology

6.1.1. Data collection Methodology

Semi structured interviews with the policy makers in all twenty-two Welsh local education authorities were planned and an interview schedule was drawn up in January 2004. This schedule was drawn up after close analysis of the results of the schools questionnaire, and issues, which appeared to be significant in the analysis, were used in the interview schedule to investigate further. Face to face interviews were proposed between the researcher and the nominees from the local education authorities. An introductory letter on University College Chester headed notepaper was sent to each Director of Education, requesting a nominee from each authority to participate in the interviews (see Appendix Two). The introductory letter was translated into Welsh, and the bi-lingual letter was sent to each authority. A stamped addressed envelop was enclosed with each introductory request letter.

6.1.2. Format of Interview Schedule

The interview schedule consisted of fourteen open ended questions, with suggested probe questions attached, plus one open question, number fifteen, to allow for individual differences between authorities (see Appendix Two). This allowed a degree of flexibility, and the opportunity to clarify any misunderstandings, or to elicit more depth as required.

All questions were selected to be factual in nature and to invite factual replies rather than opinion. The first three questions were numerical in nature but estimates and approximate numbers only were requested. The interview included questions that sought answers to the demography of dyslexic children in Wales and the educational psychologists and specialist units.

Although the interviewer had little control over the responses, it did ensure that the respondent had the freedom to give their own answer, as fully as they chose, without this being constrained by the nature of the question. Each interview was expected to

last between twenty and forty minutes and each respondent was aware of the anticipated time limits.

6.1.3. Response Rate

The original letter, requesting nominees for the interview, produced a disappointing response with nine nominees. Each nominee was contacted by telephone to arrange a face-to-face interview. Face to face interviews were granted by five of the nominees, the remaining nominees agreed to be interviewed over the telephone. A further letter requesting a nominee was sent to the non-participating Directors of Education, in May 2004 and a further nine nominees were contacted by telephone, and interviews were arranged and conducted. The remaining four local education authorities were contacted by telephone in October 2004, and interviews arranged and conducted, until representatives from all twenty-two Welsh local education authorities had been represented in the research.

Not all questions were readily answered by all twenty-two representatives of the local education authorities, as some felt that not all questions were appropriate for them, or they did not have or were not prepared to reveal, the information at this time. No pressure was placed upon those who felt unable to answer, for whatever reason they may have had; the researcher felt that this was an ethical issue that was important to adhere to.

6.1.4. Question selection

The interview schedule was first undertaken as a pilot study, with three volunteer respondents from Cheshire local education authority, one educational psychologist and two LEA policy makers. The pilot representatives were selected from Cheshire, which although outside Wales, ensured that important representatives from the Welsh authorities were not “used up”, thereby reducing the scope of the survey. The researcher believed that although outside Wales, the rural Cheshire area, on the borders of Wales, was likely to be similar enough to the target group to act as a suitable pilot sample. This was to ensure the clarity of the questions, the time taken to complete and that any ambiguities or objections to the wording could be checked and rephrased or adapted. This allowed for some fine-tuning to the original interview schedule questions, which was made before the interviews in Wales began. This also

allowed the interviewer to test the appropriate probe questions and interview technique, to make sure that the respondents were comfortable with the probe questions and that they were useful in clarifying the respondents meaning, without leading the responses to an unacceptable degree. The pilot also enabled the researcher to 'practice' her interview technique, to ensure that the respondents were put at ease with the process, and fully understood the parameters of the research, and to what use the investigation would be put. In this way, the researcher was able to convince the respondents of their anonymity, and to create a warm but professional atmosphere, conducive to an open and frank discussion.

6.1.5. Presentation of Interviews

Each interview began with a short explanation of the nature of the research and the status of the interviewer. Every effort was made on the part of the interviewer to be as objective as possible, and not to allow personal views and opinions to influence the responses, or to react when the interviewee expressed views that may be contrary to that of the interviewer. Where possible no reactions, judgements or opinions, either positive or negative, were conveyed to the interviewee. It was essential for the quality of the responses, to have a 'friendly', interactive conversation with the interviewee. Questions were asked according to the pre-arranged schedule, unless the interviewer considered that the interviewee had misunderstood any issue, and then the interviewer was able to direct the focus to the area of interest through the use of the probe questions.

All interviews were recorded longhand, in note format, and notes were written up, as soon as possible following the interview, before the memory faded. The use of a tape recorder was considered but rejected on the premise that it may have inhibited responses, with accompanying issues of confidentiality and security precautions.

6.1.6. Analysis Employed

All data was coded and analysed using SPSS for Windows software. Statistical tests employed were chi-squared which enables frequencies to be compared with scores landing in certain categories, to compare the number of times something actually happens,(the actual frequency) with the number of times we expect it to happen, (the

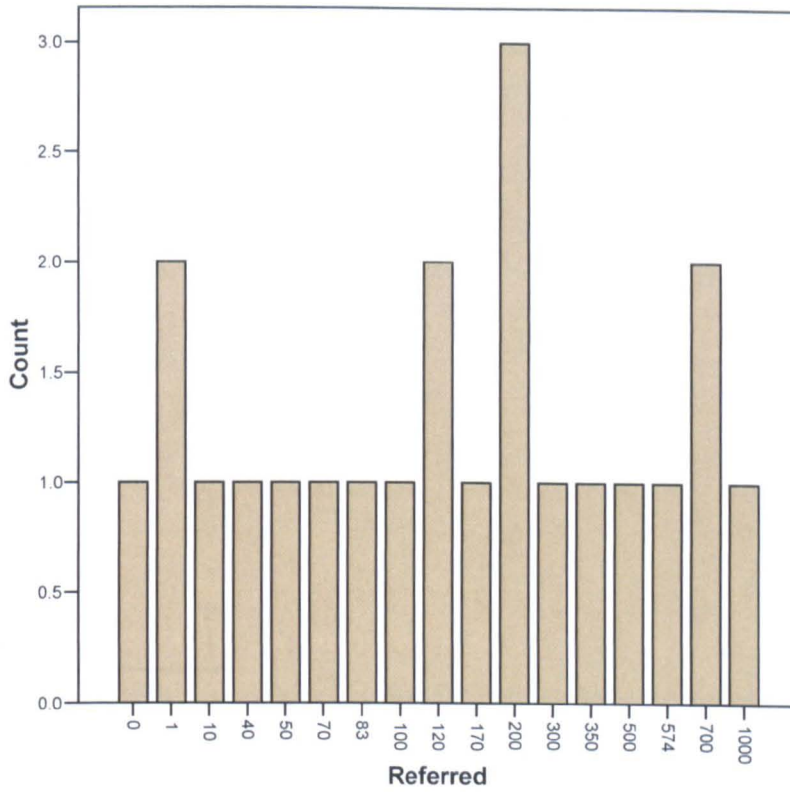
expected frequency). Chi-squared (χ^2) does not however, tell us why something has happened. Chi-squared should not be used for frequencies under 5 (Crocker, 1974). The analysis of variance and the F-ratio were also employed; this can be used to find out whether the difference between two small groups is significant or whether the two small groups are really drawn from the same population. It enables us to examine several groups at once to see whether they are significantly different or could have been drawn from the same population. If any one of the subgroups differs from the group as a whole, it will be indicated by the size of the value for F . However, at this stage, we would not know which subgroup was the one significantly different nor whether more than one subgroup differed significantly. A 't'-test of significance between each of the various subgroups would then be used to see where the difference lay. The 't' test was also employed and enabled an estimate of the standard error of difference between the means of 2 samples or 2 populations (Field A. 2000).

6.2. Presentation of Data

1.a. Approximately how many children are referred to the local authority each year?

	Observed N	Expected N	Residual
0	1	1.3	-.3
1	2	1.3	.7
10	1	1.3	-.3
40	1	1.3	-.3
50	1	1.3	-.3
70	1	1.3	-.3
83	1	1.3	-.3
100	1	1.3	-.3
120	2	1.3	.7
170	1	1.3	-.3
200	3	1.3	1.7
300	1	1.3	-.3
350	1	1.3	-.3
500	1	1.3	-.3
574	1	1.3	-.3
700	2	1.3	.7
1000	1	1.3	-.3
Total	22		

1b.



1c.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Referred	22	249.50	276.557	58.962
Statement	22	34.82	53.504	11.407
Under 5	22	.27	.883	.188
Five to 7.11	22	1.50	3.433	.732
Eight to10.11	22	4.23	6.928	1.477
Eleven to13	22	5.95	19.100	4.072
Fourteen to15	22	1.50	3.569	.761
Over 16	22	.27	.883	.188
Wait	22	2.73	1.486	.317
Policies	22	.91	.610	.130
Updated	22	.95	.785	.167
Availability	22	2.05	1.430	.305
SpLD	22	.95	.844	.180
Model	22	2.45	.671	.143
Exit	22	1.64	2.300	.490
Training DF	22	4.14	3.167	.675
Support	22	4.23	2.487	.530
Screening	22	2.41	2.737	.584
Language	22	2.05	2.214	.472
Parents	22	4.82	3.126	.667
Other	22	6.59	5.351	1.141

1d.

	Count
1	2
10	1
40	1
50	1
70	1
83	1
100	1
120	2
170	1
200	3
300	1
350	1
500	1
574	1
700	2
1000	1

1e.

The numerical responses in this interview data were all approximations made by the local authority nominees, for the year 2003-04, and demonstrate a wide variation between the authorities, from as low as 0 to 1000. The mean score does appear slightly inflated, but is close to the median score and what approximates would be expected by chance alone.

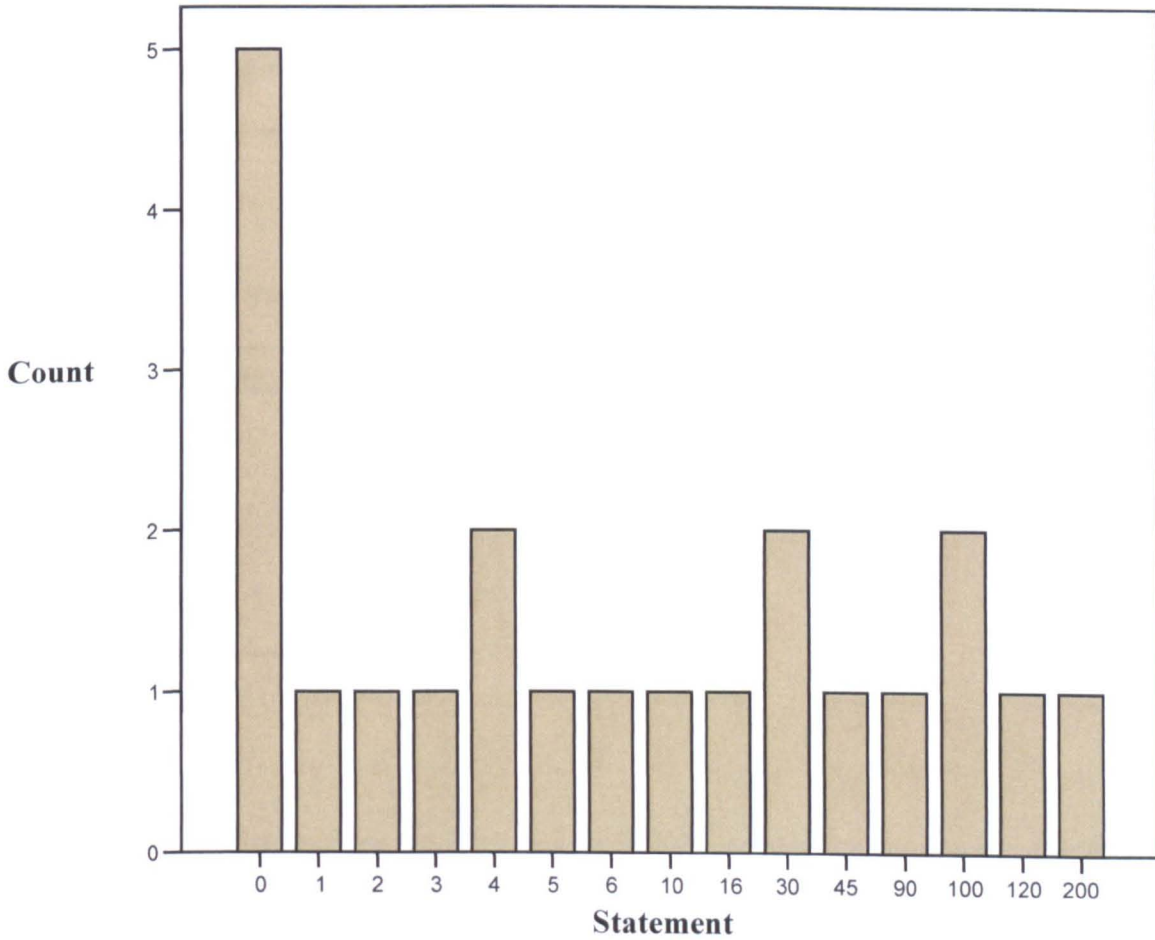
2a. Approximately how many of these children are statemented for their dyslexia?

	Count
0	5
1	1
2	1
3	1
4	2
5	1
6	1
10	1
16	1
30	2
45	1
90	1
100	2
120	1
200	1

2b. Statement

	Observed N	Expected N	Residual
0	5	1.5	3.5
1	1	1.5	-.5
2	1	1.5	-.5
3	1	1.5	-.5
4	2	1.5	.5
5	1	1.5	-.5
6	1	1.5	-.5
10	1	1.5	-.5
16	1	1.5	-.5
30	2	1.5	.5
45	1	1.5	-.5
90	1	1.5	-.5
100	2	1.5	.5
120	1	1.5	-.5
200	1	1.5	-.5
Total	22		

2c.



2d.

A wide spread and variation of scores between authorities can again be seen in the numbers of children statemented for dyslexia. The biggest proportion of authorities came in the sector that does not statemented children for dyslexia. This may, however, be inflated by the authorities that were not able or unprepared to indicate this figure. The remaining figures are close to that expected if by chance alone.

3a. What proportion of children is statemented in the following age groups?

- 5-7.11 years
- 8-10.11 years
- 11-13.11 years
- 14-15.11 years
- 16 +

Under 5 years

	Observed N	Expected N	Residual
none	19	7.3	11.7
1-9	2	7.3	-5.3
Not willing to discuss	1	7.3	-6.3
Total	22		

Five to 7.11 years

	Observed N	Expected N	Residual
None	15	3.7	11.3
1-9	2	3.7	-1.7
10-19	1	3.7	-2.7
30-39	1	3.7	-2.7
40-49	2	3.7	-1.7
15	1	3.7	-2.7
Total	22		

Eight to 10.11 years

	Observed N	Expected N	Residual
none	8	2.4	5.6
1-9	2	2.4	-.4
10-19	1	2.4	-1.4
20-29	1	2.4	-1.4
30-39	5	2.4	2.6
40-49	2	2.4	-.4
10	1	2.4	-1.4
16	1	2.4	-1.4
30	1	2.4	-1.4
Total	22		

Eleven to13.11 years

	Observed N	Expected N	Residual
None	12	2.8	9.3
1-9	2	2.8	-.8
10-19	2	2.8	-.8
30-39	2	2.8	-.8
40-49	1	2.8	-1.8
7	1	2.8	-1.8
15	1	2.8	-1.8
90	1	2.8	-1.8
Total	22		

Fourteen to15.11 years

	Observed N	Expected N	Residual
None	16	3.7	12.3
1-9	2	3.7	-1.7
30-39	1	3.7	-2.7
40-49	1	3.7	-2.7
7	1	3.7	-2.7
15	1	3.7	-2.7
Total	22		

Over16 years

	Observed N	Expected N	Residual
None	19	7.3	11.7
1-9	2	7.3	-5.3
30-39	1	7.3	-6.3
Total	22		

3b.

Statemented Under 5 years

	Count
none	19
1-9	2
Not willing to discuss	1

Statemented 5 to 7.11 years

	Count
None	15
1-9	2
10-19	1
30-39	1
40-49	2
15	1

Statemented 8-10.11 years

	Count
none	8
1-9	2
10-19	1
20-29	1
30-39	5
40-49	2
10	1
16	1
30	1

Statemented 11 to 13.11 years

	Count
None	12
1-9	2
10-19	2
30-39	2
40-49	1
7	1
15	1
90	1

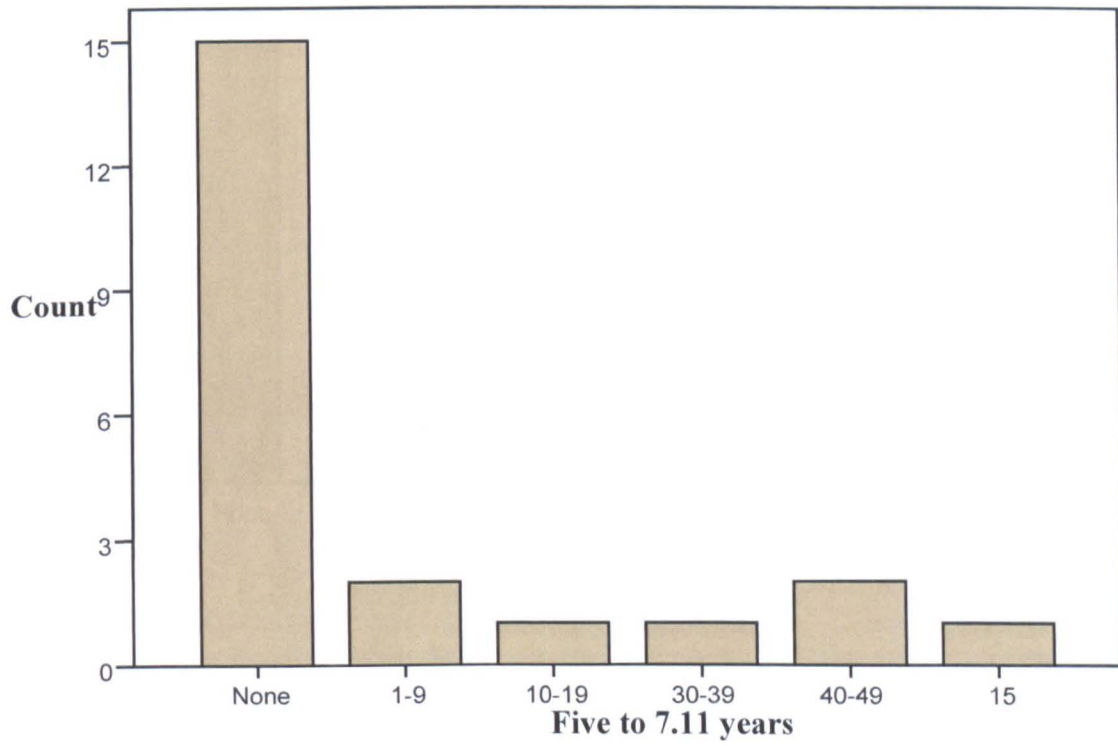
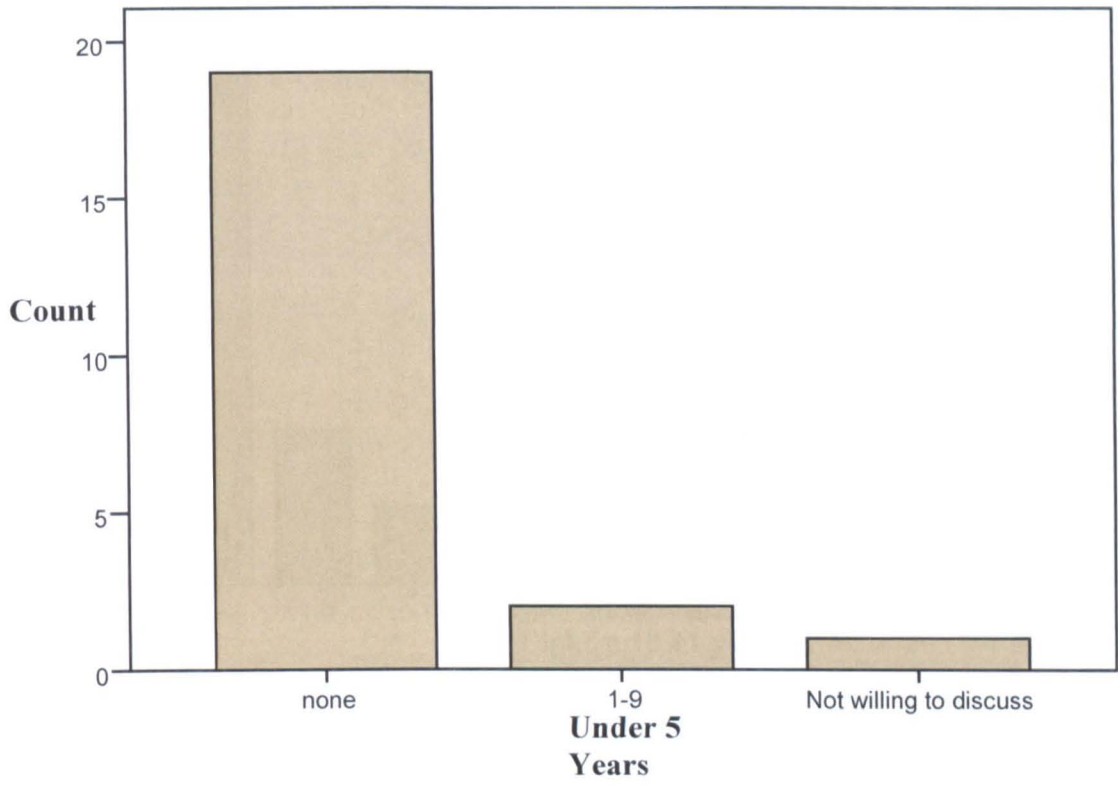
Statemented 14 to 15.11 years

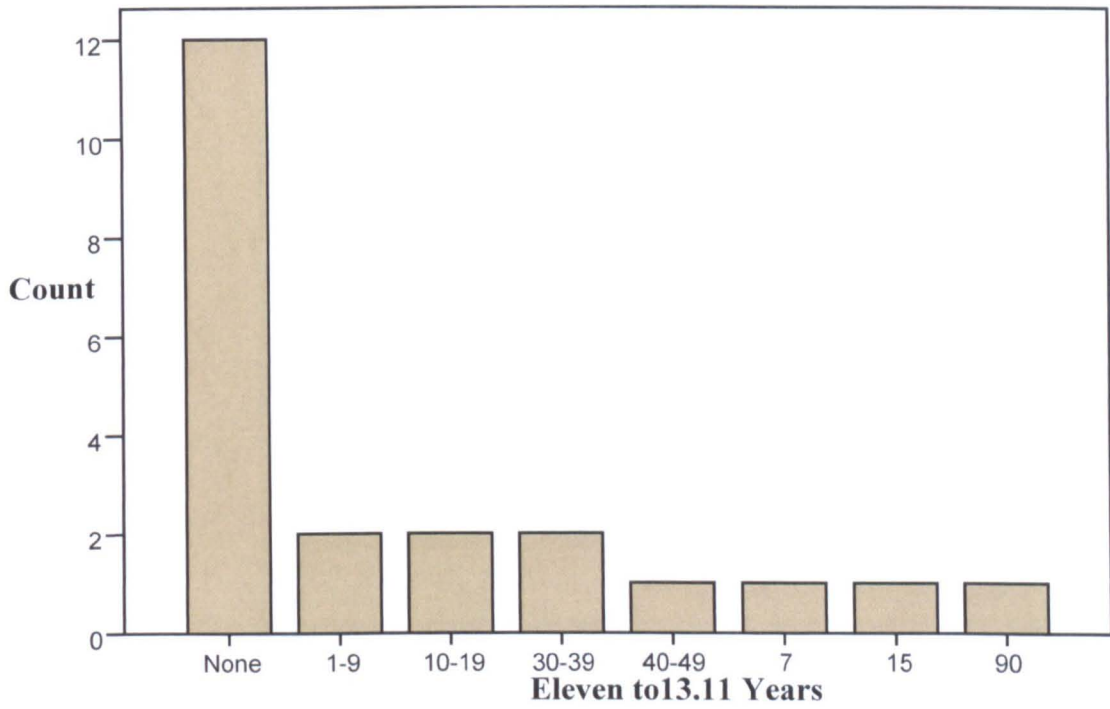
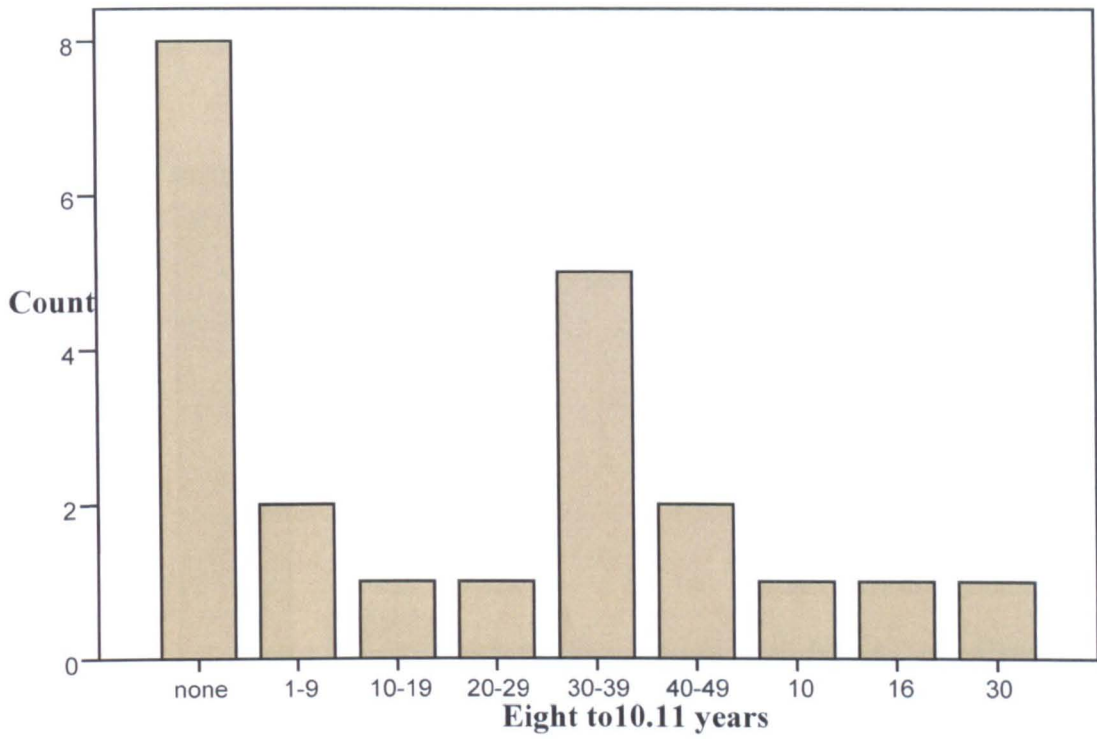
	Count
None	16
1-9	2
30-39	1
40-49	1
7	1
15	1

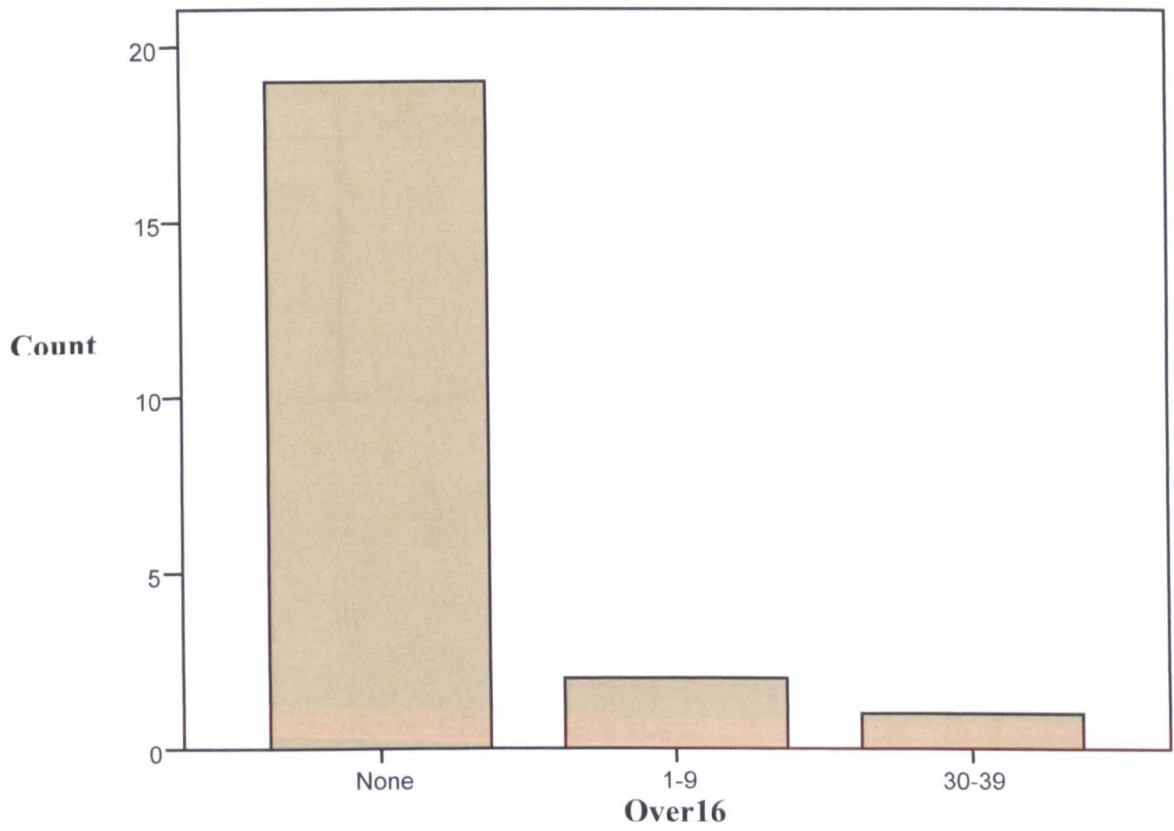
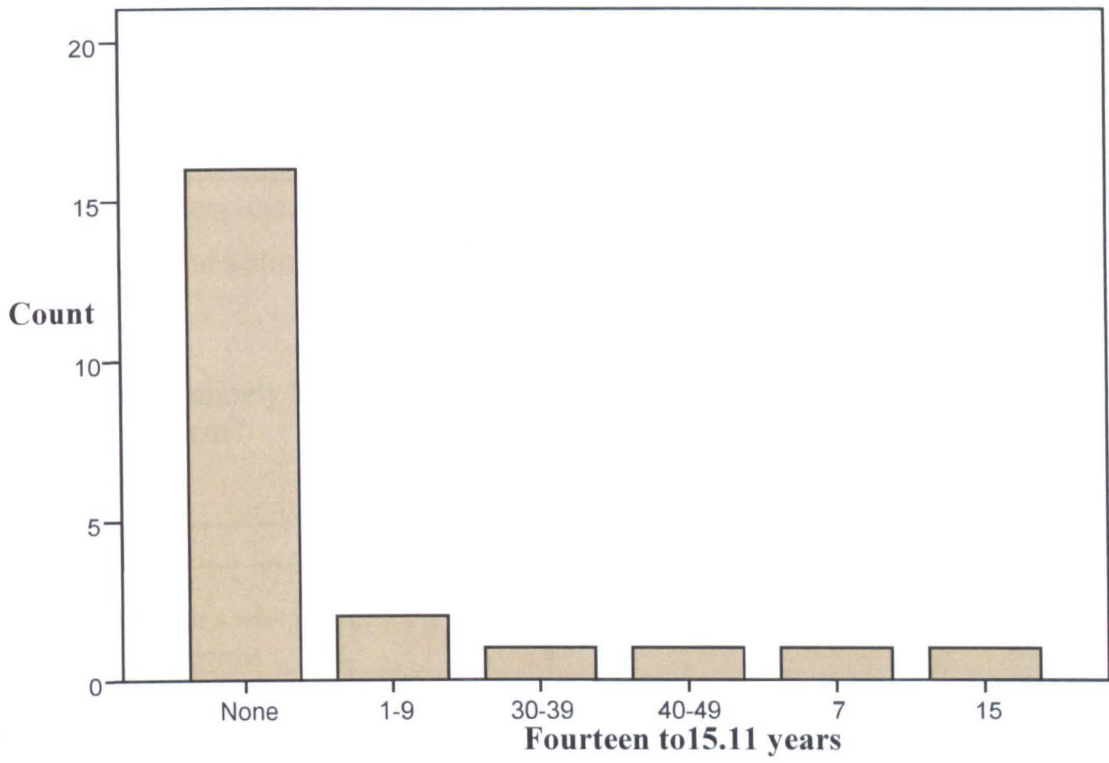
Statemented 16 years plus

	Count
None	19
1-9	2
30-39	1

3c







3d.

This question proved difficult for several authorities to answer, which may be a contributory reason for the large number of nil returns. It would appear from the data received that the age at which most children achieved a statement was at 8 to 10.11.years. Less than five children were less than 5 years old when they were statemented, and a similar number at the other end of the scale at 16 plus.

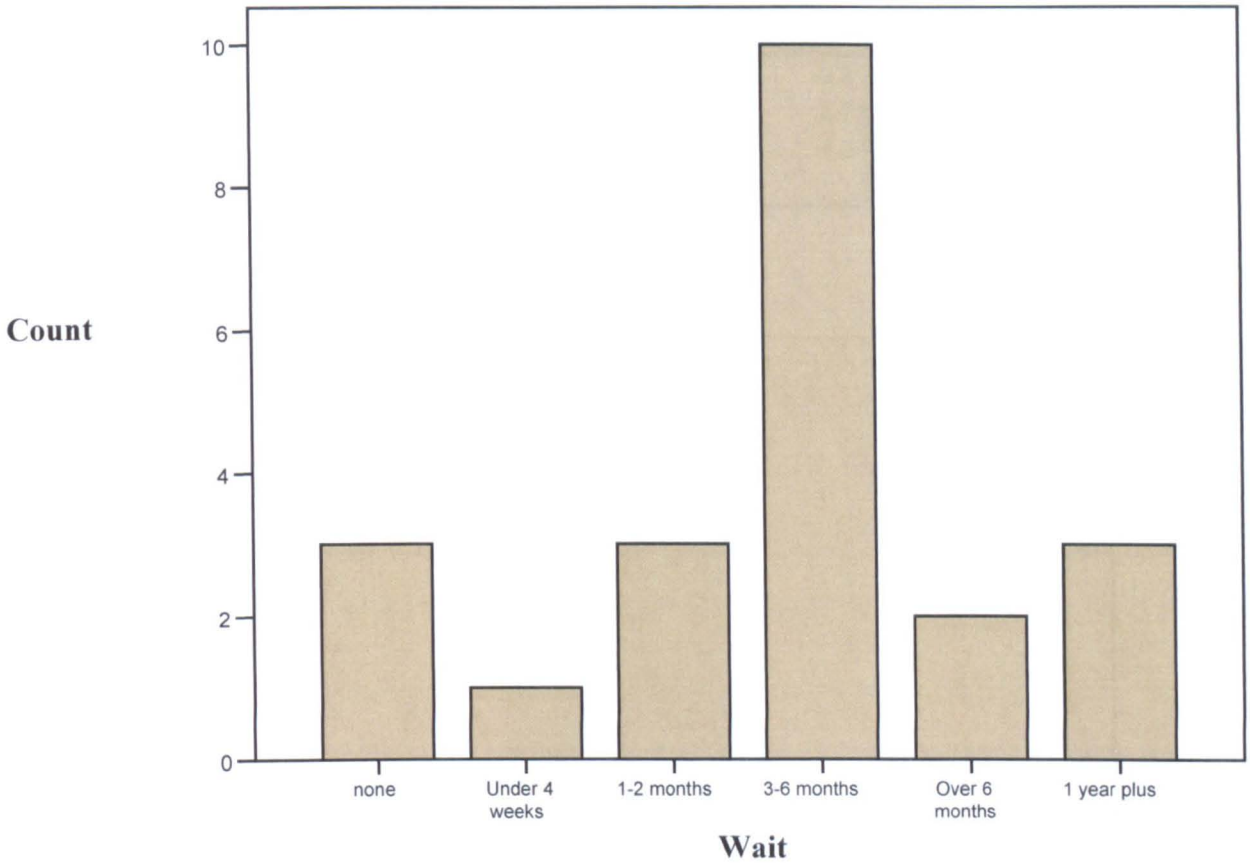
4a. Approximately how long do the children wait between referral and statement?

	Count
none	3
Under 4 weeks	1
1-2 months	3
3-6 months	10
Over 6 months	2
1 year plus	3

4b. Wait

	Observed N	Expected N	Residual
none	3	3.7	-.7
Under 4 weeks	1	3.7	-2.7
1-2 months	3	3.7	-.7
3-6 months	10	3.7	6.3
Over 6 months	2	3.7	-1.7
1 year plus	3	3.7	-.7
Total	22		

4c.



4d.

The average wait between referral and statement, or referral and specialist assistance being made available to the child, appears to be between three to six months for 45.5% of children in this category, however 13.6% of children, wait up to a year before receiving the specialist help that they will need to achieve.

5a. **Are there clear policies in place for dealing with children with dyslexia?**

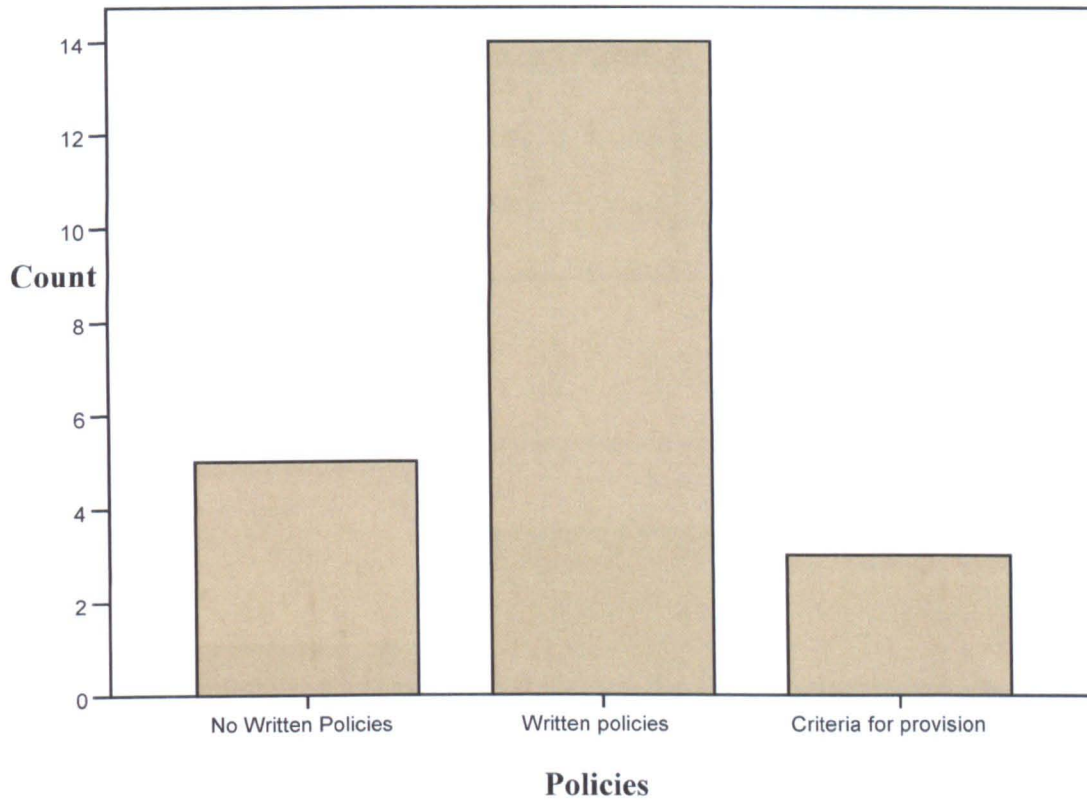
	Count
No Written Policies	5
Written policies	14
Criteria for provision	3

5b.

Policies

	Observed N	Expected N	Residual
No Written Policies	5	7.3	-2.3
Written policies	14	7.3	6.7
Criteria for provision	3	7.3	-4.3
Total	22		

5c.



5d.

Written policies, or at least criteria for provision for children who are diagnosed with dyslexia, are in place in over 77% of the 22 authorities. This still however, leaves 33% with no written policies for their schools and centres to call upon for guidance and direction. This is a significant percentage with no provision.

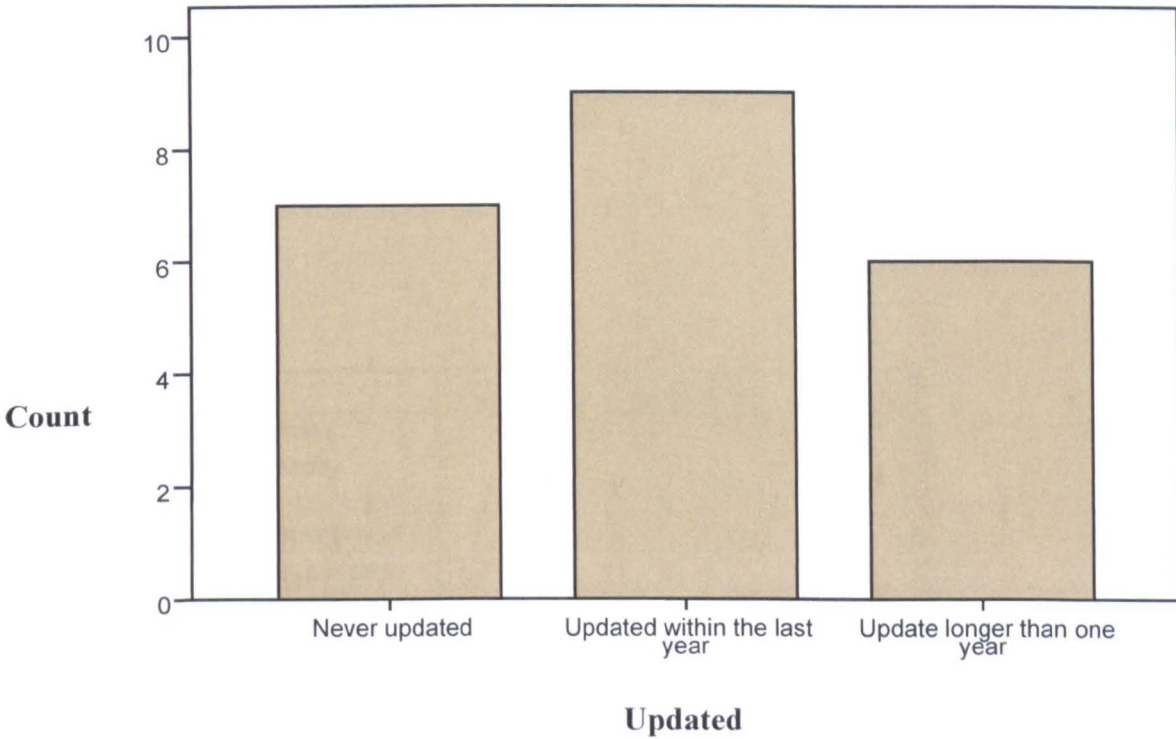
6a. Are these policies regularly updated?

	Count
Never updated	7
Updated within the last year	9
Update longer than one year	6

6b. Updated

	Observed N	Expected N	Residual
Never updated	7	7.3	-.3
Updated within the last year	9	7.3	1.7
Update longer than one year	6	7.3	-1.3
Total	22		

6c.



6b.

The percentage of authorities that update their policies regularly is 40.9% this leaves over 59% of the authorities that do not regularly update their policies concerning the provision of and access to services for children with dyslexia. 31.8% of the interviewees from the authorities admitted that, to their knowledge, their authority had never updated their policies. This figure may be inflated by the number of authorities that have no clear guidance at all (see figure 5a/b).

7a. Are these policies/ guidelines readily available to teachers and parents?

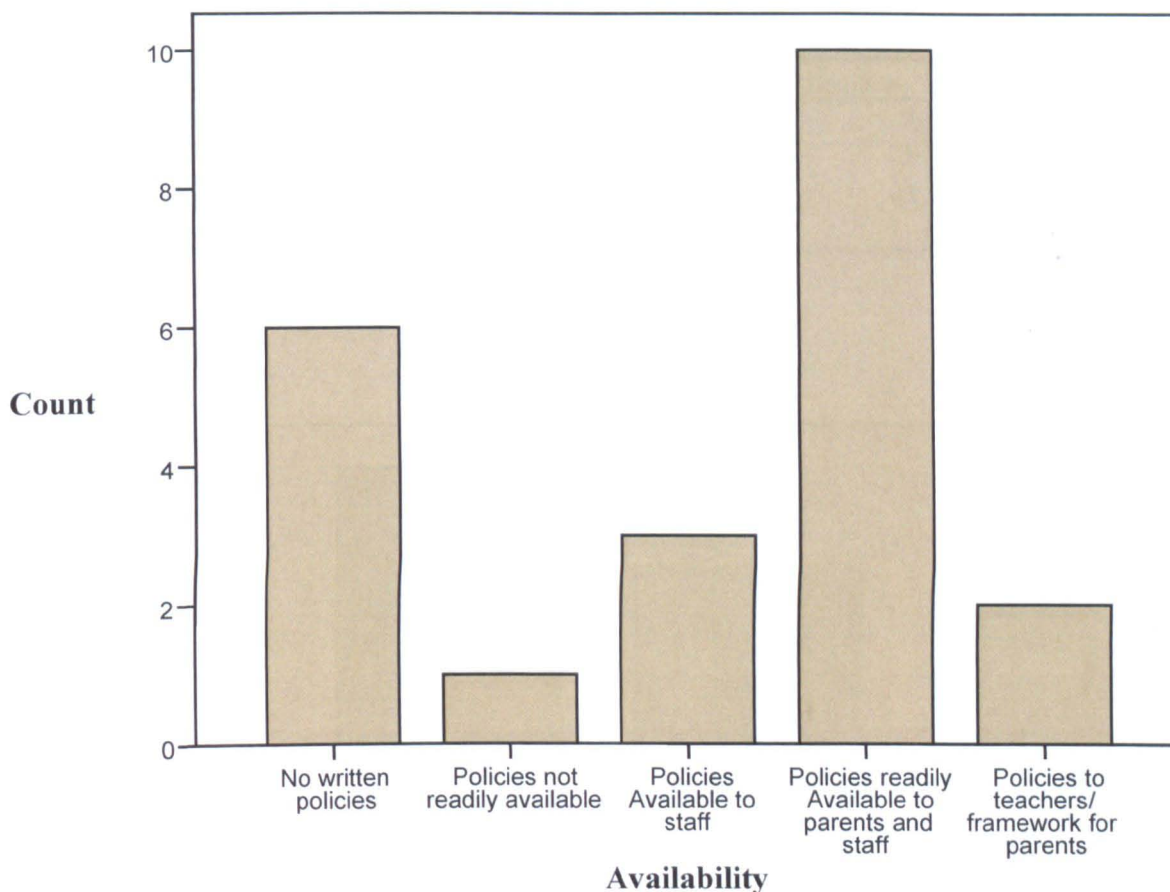
	Count
No written policies	6
Policies not readily available	1
Policies available to staff	3
Policies readily available to parents and staff	10
Policies to teachers/ framework for parents	2

7b.

Availability

	Observed N	Expected N	Residual
No written policies	6	4.4	1.6
Policies not readily available	1	4.4	-3.4
Policies available to staff	3	4.4	-1.4
Policies readily available to parents and staff	10	4.4	5.6
Policies to teachers/ framework for parents	2	4.4	-2.4
Total	22		

7c.



7d.

Policies or criteria for dealing with children with dyslexia were readily available in 45.5% of the twenty-two authorities, and policies or at least a framework, available in over 54% of the twenty-two authorities. Only one local authority or 4.5% of the sample did not make their policies readily available to teachers and to prospective parents. By removing the six authorities with no written policy, this figure becomes 75% of authorities with a written policy make them available to the staff and in part or whole, to the prospective parents.

8a. Does the authority distinguish between Specific Learning Difficulties, (SpLD) and Dyslexia?

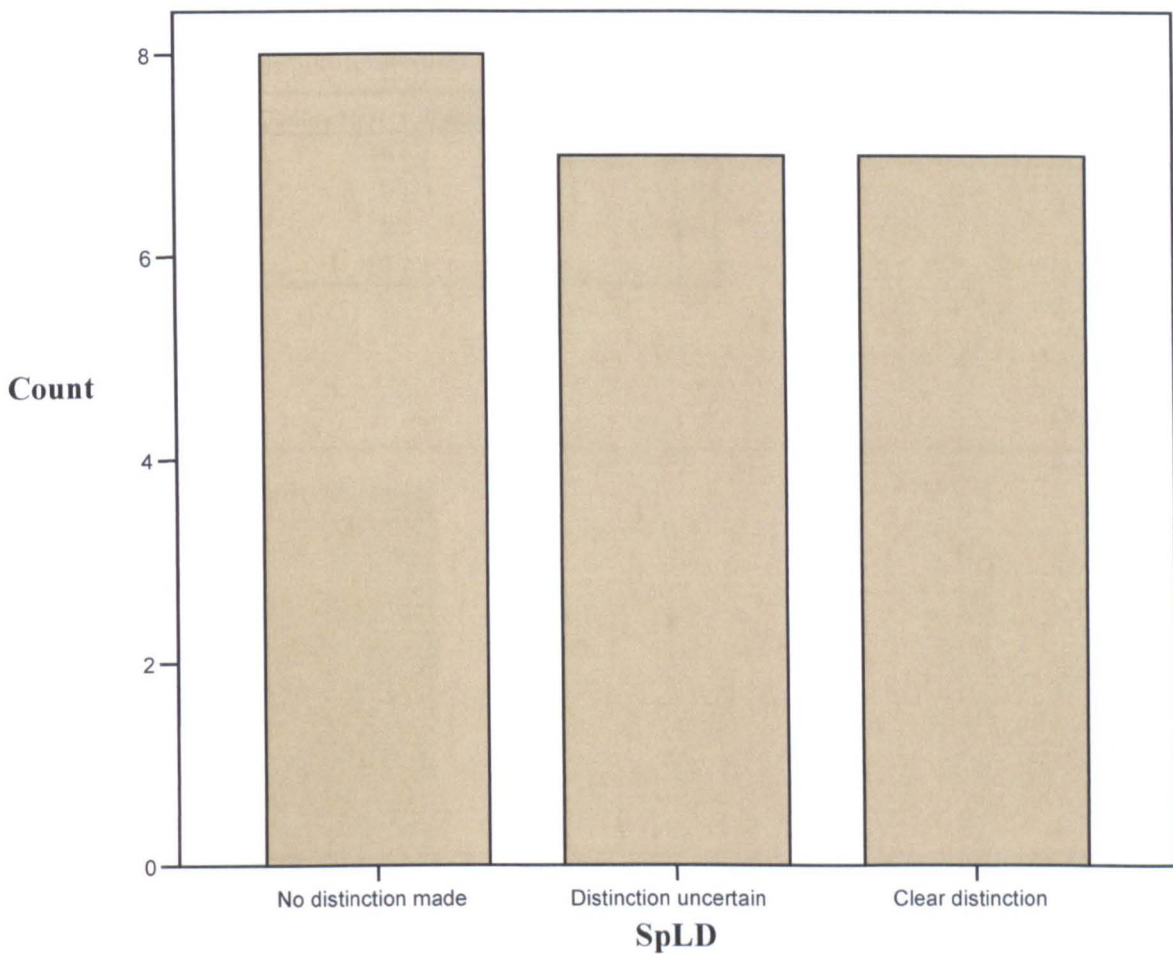
	Count
No distinction made	8
Distinction uncertain	7
Clear distinction	7

8b.

SpLD

	Observed N	Expected N	Residual
No distinction made	8	7.3	.7
Distinction uncertain	7	7.3	-.3
Clear distinction	7	7.3	-.3
Total	22		

8c.



8d.

There is a very even spread between the local authorities when considering whether there was a distinction between Specific Learning Difficulties (SpLD) and Dyslexia. 36% of the twenty-two local authorities made no distinction at all. 31% of the interviewees felt that there was a very clear distinction between the two terminologies. A further 31% felt that the distinction was unclear, blurred or indistinct.

9a. Does the Authority see dyslexia as a medical matter, educational matter or both?

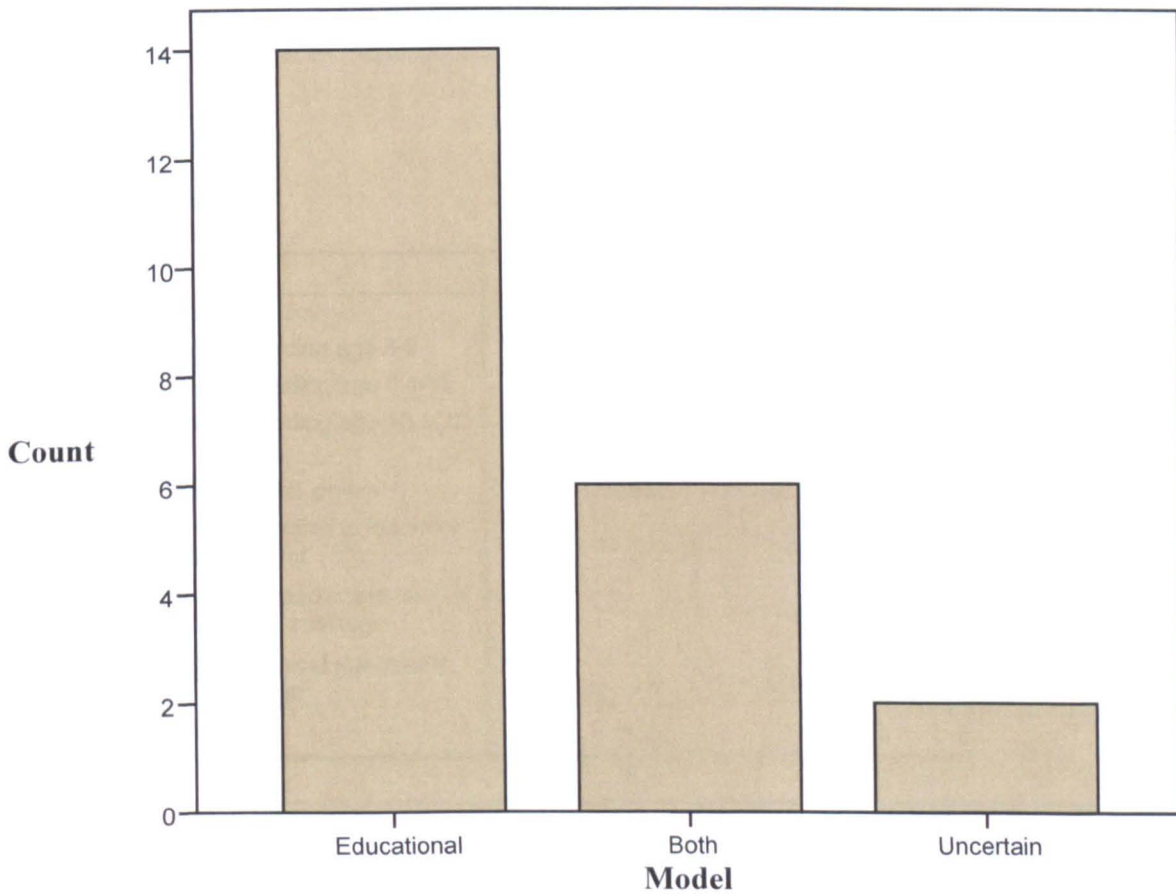
	Count
Educational	14
Both	6
Uncertain	2

9b.

Model

	Observed N	Expected N	Residual
Educational	14	7.3	6.7
Both	6	7.3	-1.3
Uncertain	2	7.3	-5.3
Total	22		

9c.



9d.

A clear majority of the authority representatives, 63.6%, saw dyslexia as a purely educational problem. A significant number 27.2% recognised that this was both a medical and an educational issue and 9% were uncertain about its derivation

10a. Does the authority have an exit policy? (This question arose from the probe questions but was put to all interviewees)

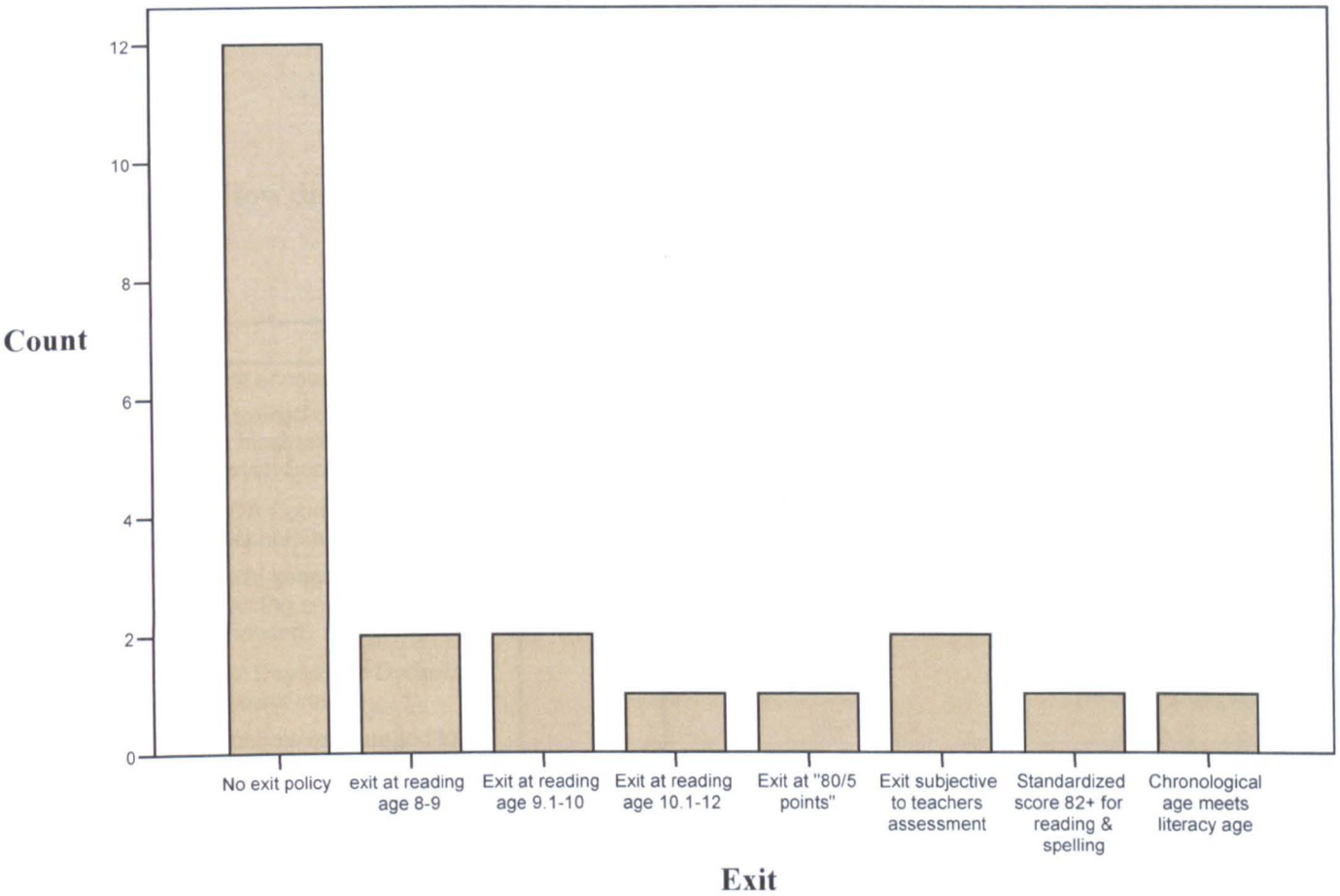
	Count
No exit policy	12
exit at reading age 8-9	2
Exit at reading age 9.1-10	2
Exit at reading age 10.1-12	1
Exit at "80/5 points"	1
Exit subjective to teachers assessment	2
Standardised score 82+ for reading & spelling	1
Chronological age meets literacy age	1

10b.

Exit

	Observed N	Expected N	Residual
No exit policy	12	2.8	9.3
exit at reading age 8-9	2	2.8	-.8
Exit at reading age 9.1-10	2	2.8	-.8
Exit at reading age 10.1-12	1	2.8	-1.8
Exit at "80/5 points"	1	2.8	-1.8
Exit subjective to teachers assessment	2	2.8	-.8
Standardised score 82+ for reading & spelling	1	2.8	-1.8
Chronological age meets literacy age	1	2.8	-1.8
Total	22		

10c



10d.

This question does not appear upon the original interview schedule, but arose from the probe questions put to each authority, and was deemed to be significant enough to be included in the analysis. An ‘exit policy’ is the point at which the local education authority representatives judge that a child who has been receiving special support and guidance for dyslexia, has reached a point whereby s/he can now cope without those special measures, and can fulfil their potential with no extra assistance or finance. Over half of the authorities did not have an exit policy, but 45.45%, a highly significant number, did have a clear policy that indicated when a child no longer falls into the category of requiring special help and facilities, to enable them to learn in the mainstream school setting. The range of these policies varied widely from subjective teacher assessments, to a point where the chronological age meets the reading age. All assessments appear to be made on the basis of reading or reading and spelling ability, no authorities appear to take a broader picture, including social and emotional issues,

or physical and organisational indications, into account. A heavy reliance upon the concept of reading age is apparent in 80% of the authorities that have a clear exit policy.

11a. How do you encourage 'dyslexia friendly' teaching within your authority?

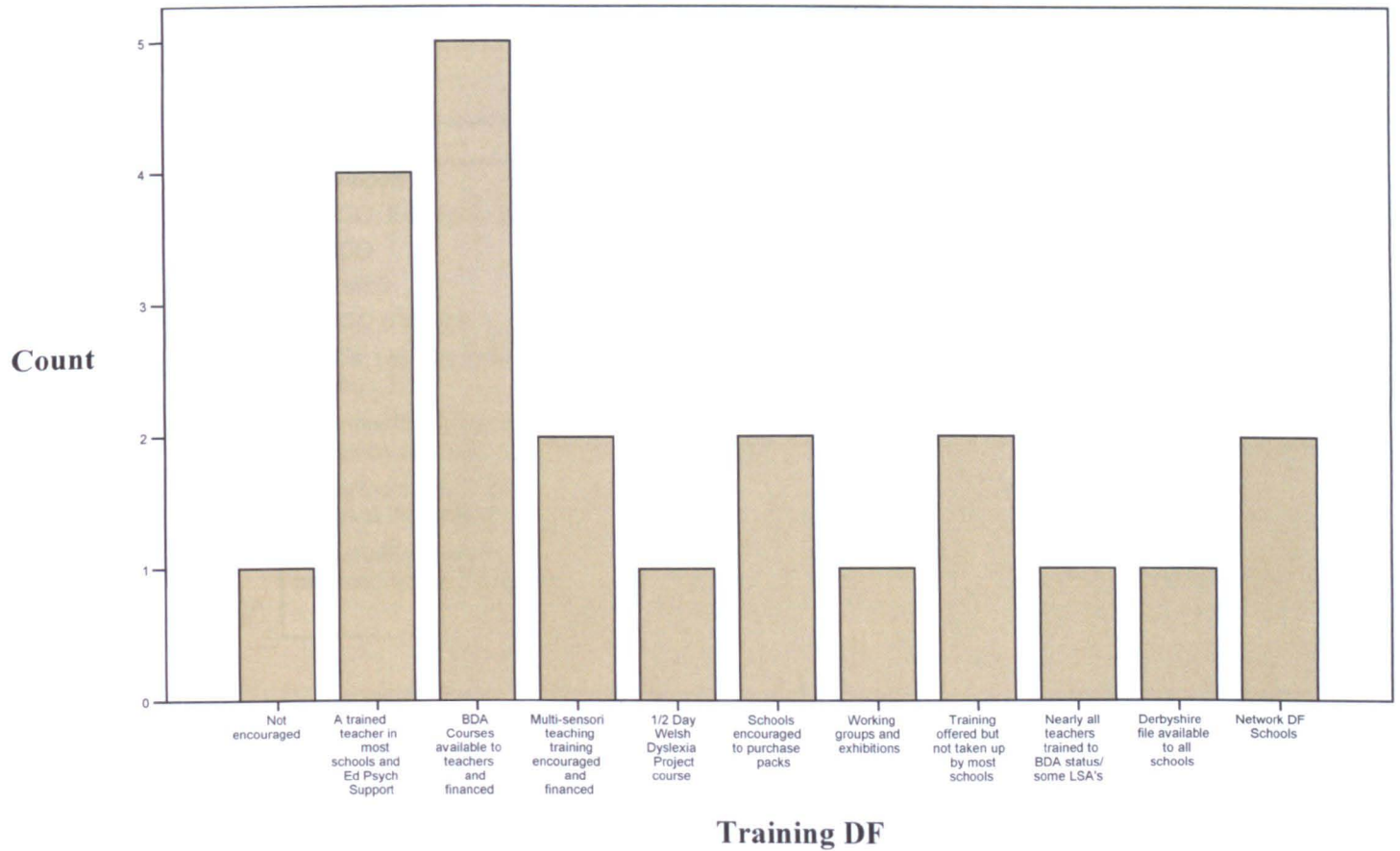
	Count
Not encouraged	1
A trained dyslexic teacher in most schools and Ed Psych Support	4
BDA Courses available to teachers and financed	5
Multi-sensory teaching training encouraged and financed	2
1/2 Day Welsh Dyslexia Project course	1
Schools encouraged to purchase packs	2
Working groups and exhibitions	1
Training offered but not taken up by most schools	2
Nearly all teachers trained to BDA status/ some L.S.A's	1
Derbyshire file available to all schools	1
Network DF Schools	2

11b.

Training Dyslexia Friendly

	Observed N	Expected N	Residual
Not encouraged	1	2.0	-1.0
A trained teacher in most schools and Ed Psych Support	4	2.0	2.0
BDA Courses available to teachers and financed	5	2.0	3.0
Multi-sensory teaching training encouraged and financed	2	2.0	.0
1/2 Day Welsh Dyslexia Project course	1	2.0	-1.0
Schools encouraged to purchase packs	2	2.0	.0
Working groups and exhibitions	1	2.0	-1.0
Training offered but not taken up by most schools	2	2.0	.0
Nearly all teachers trained to BDA status/ some LSA's	1	2.0	-1.0
Derbyshire file available to all schools	1	2.0	-1.0
Network DF Schools	2	2.0	.0
Total	22		

11c.



11d.

All but one local authority interviewee recognised the term ‘dyslexia friendly teaching’, and strove to implement this into their schools. This did produce a wide range of responses, the most significant of which was the use and finance of British Dyslexia Association (BDA) endorsed courses in 22.7% of authorities. Responses ranged from authorities that financed training for every teacher and some learning support assistants (LSAs), to authorities that offered training but no finance.

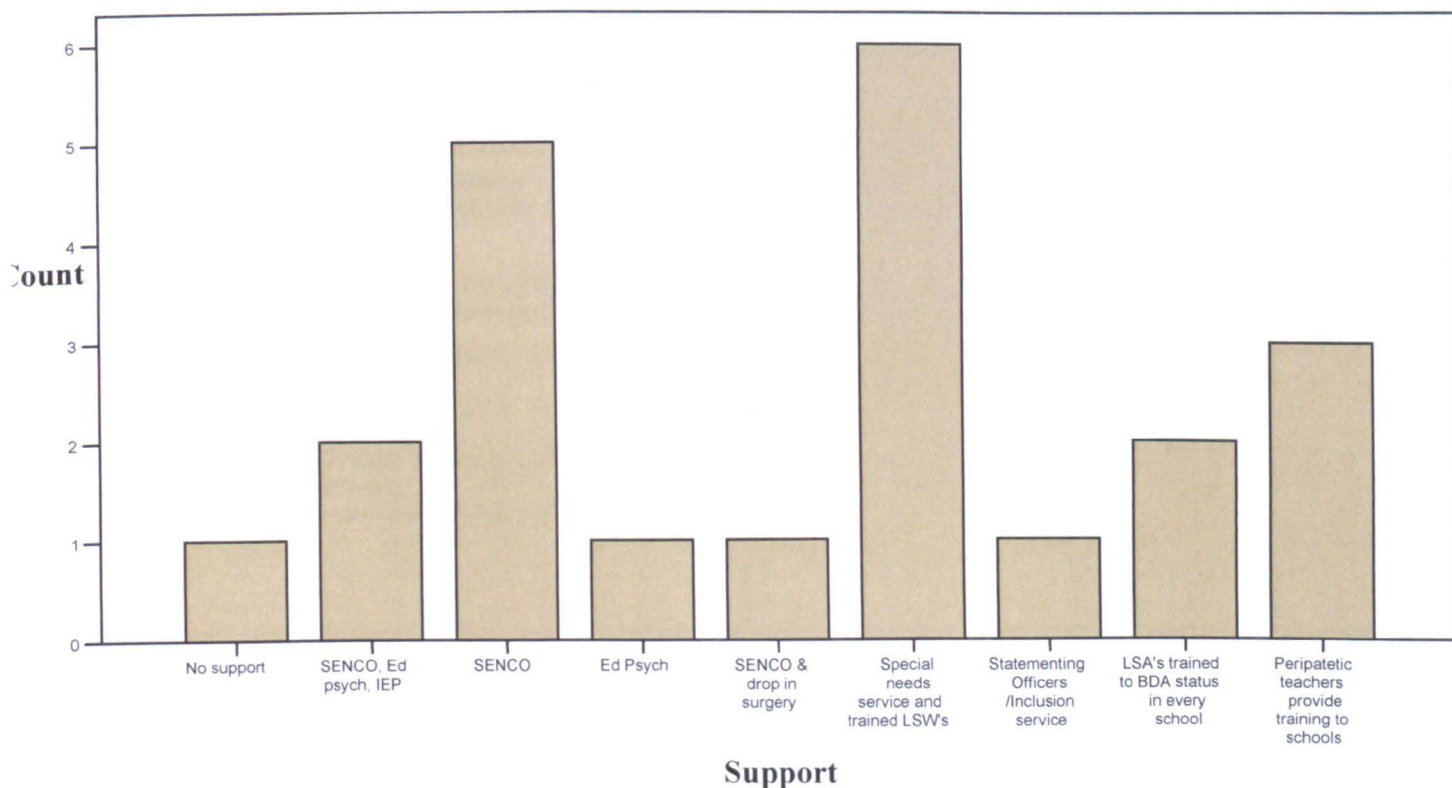
12a. What support is available to teachers who have children with dyslexia in their class?

	Count
No support	1
SENCO, Ed psych, IEP	2
SENCO	5
Ed Psych	1
SENCO & drop in surgery	1
Special needs service and trained LSW's	6
Statementing Officers /Inclusion service	1
LSA's trained to BDA status in every school	2
Peripatetic teachers provide training to schools	3

12b. Support for teachers

	Observed N	Expected N	Residual
No support	1	2.4	-1.4
SENCO, Ed psych, IEP	2	2.4	-.4
SENCO	5	2.4	2.6
Ed Psych	1	2.4	-1.4
SENCO & drop in surgery	1	2.4	-1.4
Special needs service and trained LSW's	6	2.4	3.6
Statementing Officers /Inclusion service	1	2.4	-1.4
LSA's trained to BDA status in every school	2	2.4	-.4
Peripatetic teachers provide training to schools	3	2.4	.6
Total	22		

12c.



12d.

According to the representatives of the local authorities, a wide range of support was available to teachers who have children with dyslexia, or with dyslexic tendencies, in their classroom. This support ranged from no support, to authorities where they felt that a great deal of support was on offer. The *level* of that support also varied widely, from trained learning support workers, to educational psychologists. Special Educational Needs Co-ordinators were seen to be the main source of support in over 36% of the authorities. Only 13.6% of the authorities provided specialist peripatetic teachers, trained in teaching children with dyslexia.

13a. What screening procedures are in place to identify children with dyslexic tendencies?

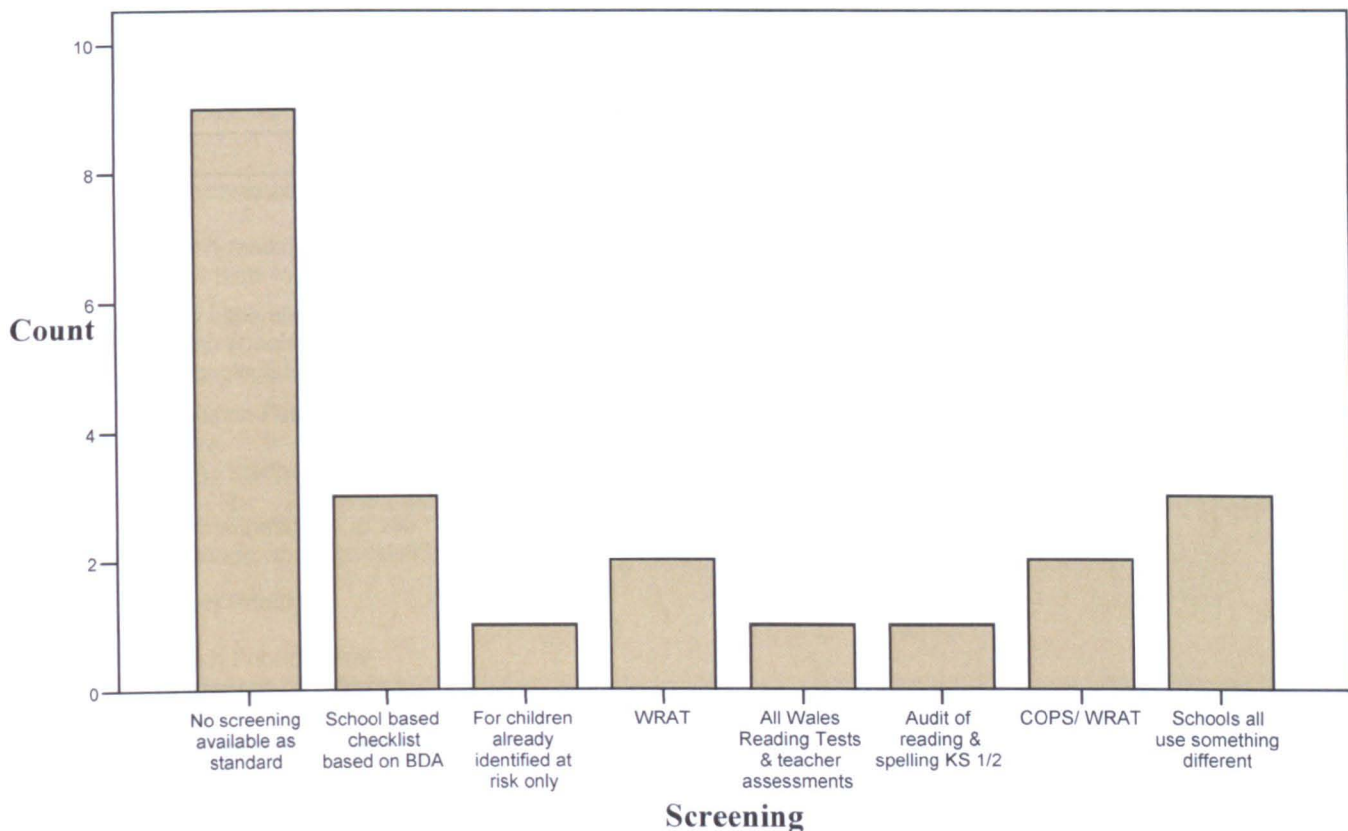
	Count
No screening available as standard	9
School based checklist based on BDA	3
For children already identified at risk only	1
WRAT	2
All Wales Reading Tests & teacher assessments	1
Audit of reading & spelling KS 1/2	1
COPS/ WRAT	2
Schools all use something different	3

13b.

Screening

	Observed N	Expected N	Residual
No screening available as standard	9	2.8	6.3
School based checklist based on BDA	3	2.8	.3
For children already identified at risk only	1	2.8	-1.8
WRAT	2	2.8	-.8
All Wales Reading Tests & teacher assessments	1	2.8	-1.8
Audit of reading & spelling KS 1/2	1	2.8	-1.8
COPS/ WRAT	2	2.8	-.8
Schools all use something different	3	2.8	.3
Total	22		

13c.



13d.

The percentage of authorities where there was no screening in place for children who could potentially be dyslexic, when those children first come into school was 40.9%, and this group was by far the largest percentage group. In 27.3% of authorities, the schools themselves devised their own screening processes, and although they were encouraged to do so, with 50% of those authorities issuing BDA guidelines, it was the responsibility of the individual schools as to whether this was carried out or not.

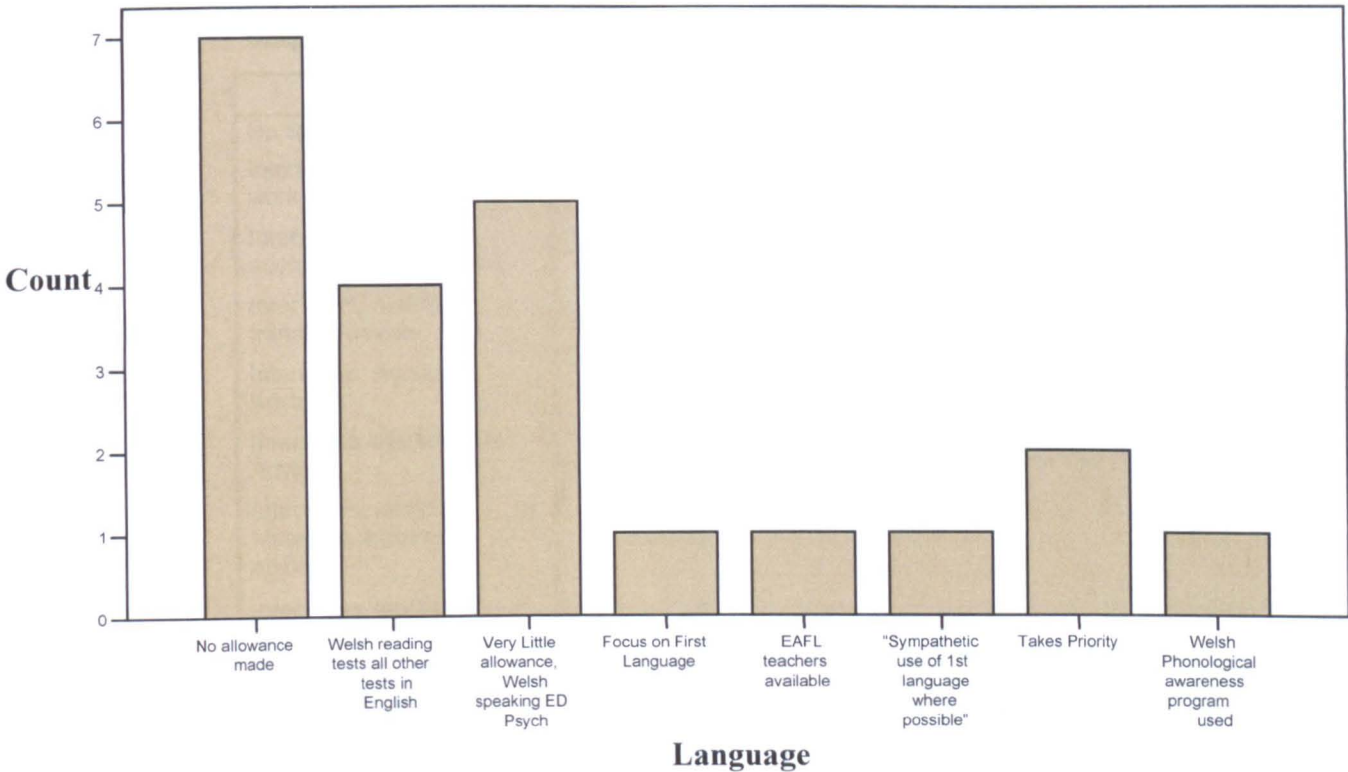
14a. What allowance is made for children for whom English is not their first language? (It was made clear to each respondent that the research would focus particularly upon children for whom Welsh was their first language).

	Count
No allowance made	7
Welsh reading tests all other tests in English	4
Very Little allowance, Welsh speaking ED Psychologists	5
Focus on First Language	1
EAFL teachers available	1
"Sympathetic use of 1st language where possible"	1
Takes Priority	2
Welsh Phonological awareness programme used	1

14b. Language

	Observed N	Expected N	Residual
No allowance made	7	2.8	4.3
Welsh reading tests all other tests in English	4	2.8	1.3
Very Little allowance, Welsh speaking ED Psychologists	5	2.8	2.3
Focus on First Language	1	2.8	-1.8
EAFL teachers available	1	2.8	-1.8
"Sympathetic use of 1st language where possible"	1	2.8	-1.8
Takes Priority	2	2.8	-.8
Welsh Phonological awareness programme used	1	2.8	-1.8
Total	22		

14c.



14d.

Over 31% of the local education authority representatives made it clear at interview that no allowance was made for children for whom English was not their first language. The interviewer made it clear at the interview that the question was particularly applicable for children for whom Welsh was their first language. In less than 10% of the authorities is a child’s first language given any priority.

Over 22% of the authorities highlighted the lack of Welsh speaking psychologists as a difficulty, resulting in very little allowance being made for the children for whom Welsh is their first language.

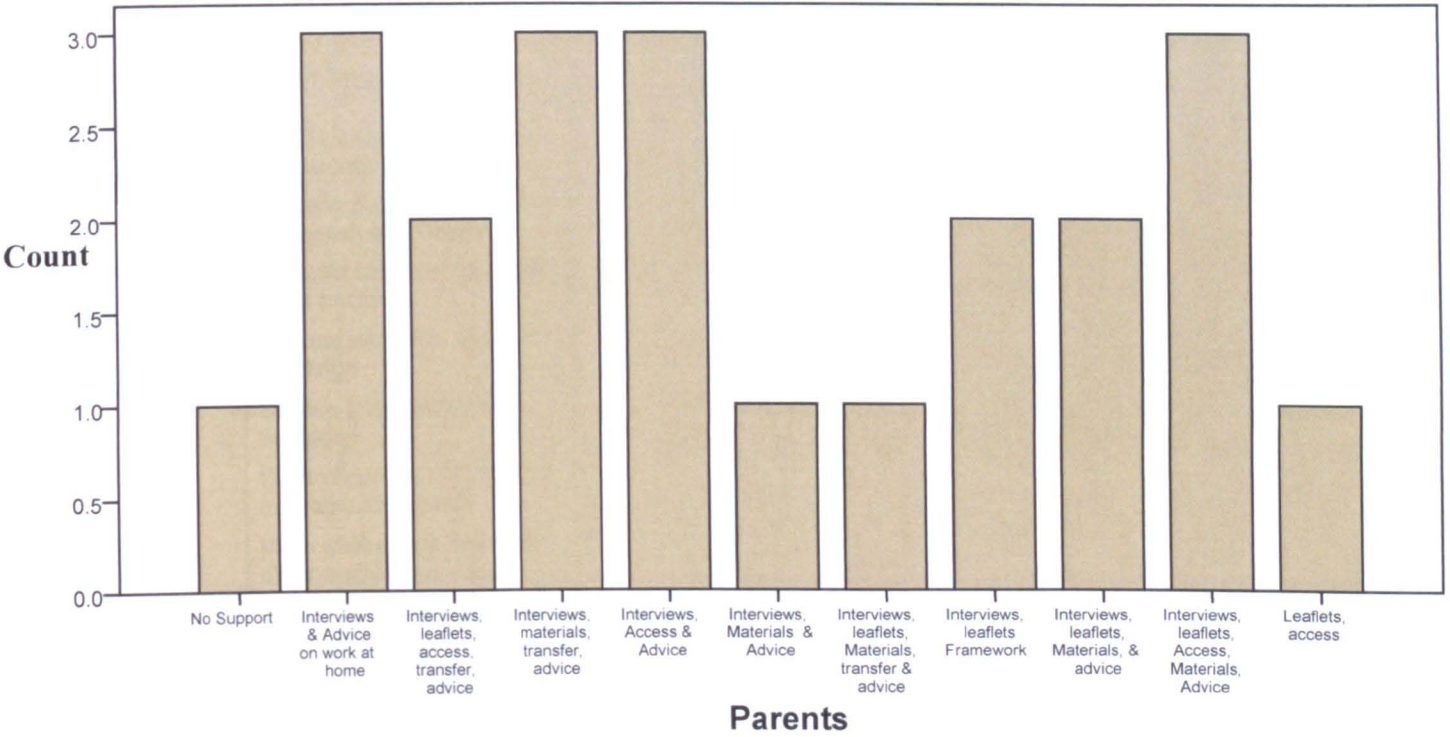
15a. What support and information is given to parents of children who are diagnosed with dyslexia?

	Count
No Support	1
Interviews & Advice on work at home	3
Interviews, leaflets, access, transfer, advice	2
Interviews, materials, transfer, advice	3
Interviews, Access & Advice	3
Interviews, Materials & Advice	1
Interviews, leaflets, Materials, transfer & advice	1
Interviews, leaflets Framework	2
Interviews, leaflets, Materials, & advice	2
Interviews, leaflets, Access, Materials, Advice	3
Leaflets, access	1

15b. Parents

	Observed N	Expected N	Residual
No Support	1	2.0	-1.0
Interviews & Advice on work at home	3	2.0	1.0
Interviews, leaflets, access, transfer, advice	2	2.0	.0
Interviews, materials, transfer, advice	3	2.0	1.0
Interviews ,Access & Advice	3	2.0	1.0
Interviews, Materials & Advice	1	2.0	-1.0
Interviews, leaflets, Materials, transfer & advice	1	2.0	-1.0
Interviews, leaflets Framework	2	2.0	.0
Interviews, leaflets, Materials, & advice	2	2.0	.0
Interviews, leaflets, Access, Materials, Advice	3	2.0	1.0
Leaflets, access	1	2.0	-1.0
Total	22		

15c.



15d.

The range of support given to children who are assessed as having dyslexia or dyslexic tendencies is very broad and varied. Over 95% of the local authorities in Wales interviewed do offer support that is all but one of the twenty-two local authorities. It would appear from the research that the most commonly offered support is in the form of an interview or an advice session between schools and parents or between educational psychologists and parents. Most of the authorities (81.81%) produce a range of leaflets or printed materials to give advice and support to parents who have children assessed with dyslexia.

Over 27% of the local education authorities admitted that some children with dyslexia were transferred to facilities outside their own local authority boundaries, when the authority believed that they did not have the facilities to provide for the particular needs of individual children. Some of the authority representatives did imply that this was often as a result of parental pressure and was the action of last resort.

16a. Are there any other issues which the authority would like the research to be aware of?

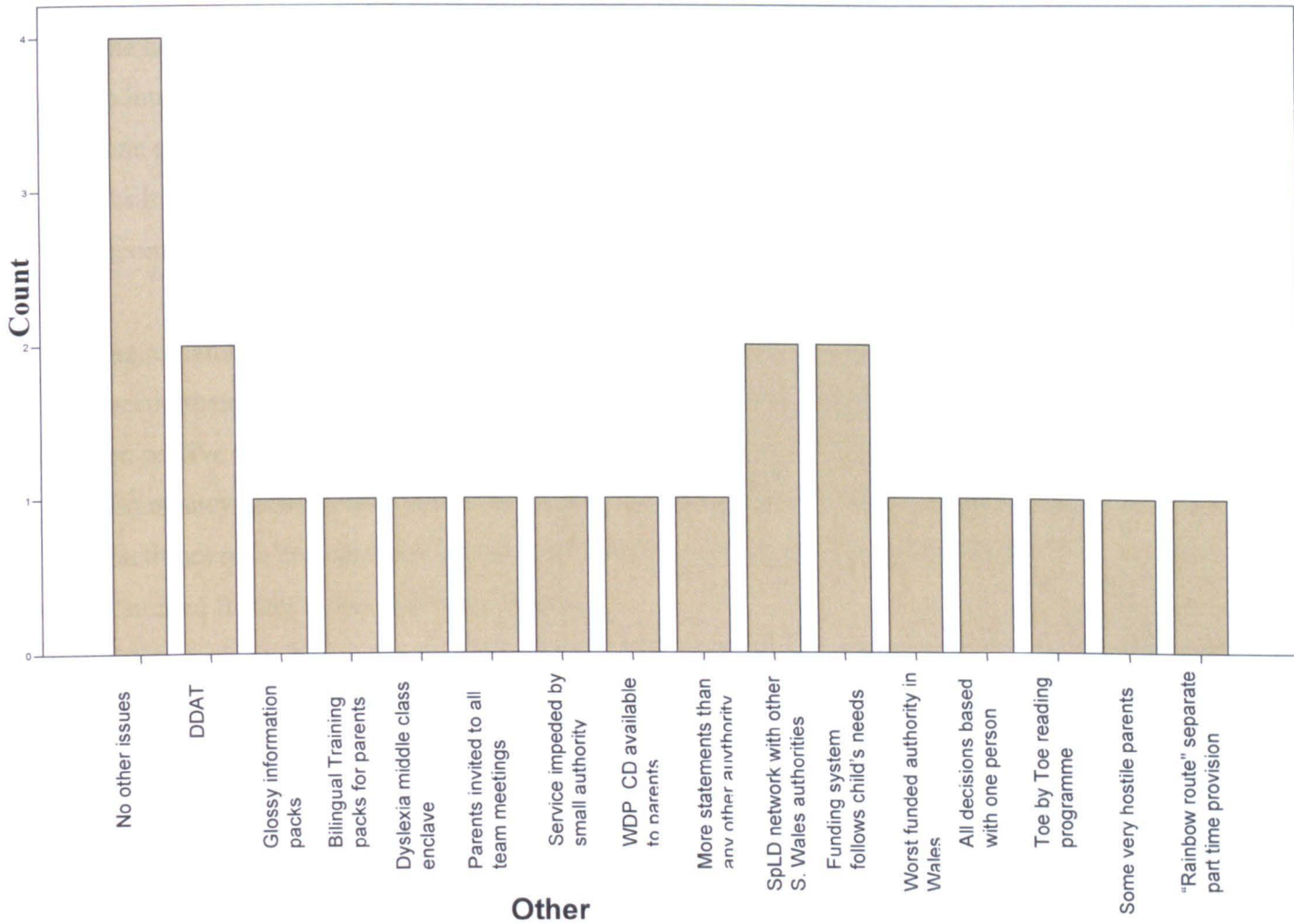
	Count
No other issues	4
DDAT Pilot area	2
Glossy information packs for parents	1
Training packs for parents in English and Welsh	1
Dyslexia seen as a middle class enclave	1
Parents invited to all team meetings	1
Service impeded by small authority	1
Welsh Dyslexia Project CD available to parents	1
More statements than any other authority in Wales	1
SpLD network with other S Wales authorities	2
Funding system follows children's needs	2
Worst funded authority in Wales	1
All decisions based with one person	1
Toe by Toe reading programme used in all schools	1
Some very hostile parent groups	1
"Rainbow Route" separate part time provision	1

16b.

Other

	Observed N	Expected N	Residual
No other issues	4	1.4	2.6
DDAT Pilot area	2	1.4	.6
Glossy information packs for parents	1	1.4	-.4
Training packs for parents in English and Welsh	1	1.4	-.4
Dyslexia seen as a middle class enclave	1	1.4	-.4
Parents invited to all team meetings	1	1.4	-.4
Service impeded by small authority	1	1.4	-.4
Welsh Dyslexia Project CD available to parents	1	1.4	-.4
More statements than any other authority in Wales	1	1.4	-.4
SpLD network with other S Wales authorities	2	1.4	.6
Funding system follows children's needs	2	1.4	.6
Worst funded authority in Wales	1	1.4	-.4
All decisions based with one person	1	1.4	-.4
Toe by Toe reading programme used in all schools	1	1.4	-.4
Some very hostile parent groups	1	1.4	-.4
"Rainbow Route" separate part time provision	1	1.4	-.4
Total	22		

16c.



16d.

The final question of the interview schedule was whether there were any other issues that the representatives wish to make the interviewer aware of. The issues raised by this question were wide and various, and whilst mostly negative in origin, some very positive aspects did emerge, and representatives were obviously proud of the record of their own authority. Positive replies suggested that good information materials were available or that special training and support programmes were in place within their authority. The broad range of issues shows that there was no general agreement between the authorities as to the good practice in place.

6.3. Conclusion

One advantage of a semi-structured interview is that it allows the researcher to follow up interesting ideas perhaps not previously considered. It can be seen that this was done to effect with the results given in question 10, concerning an exit policy. This was important further information for this research and would perhaps not have become known without the ability to probe the interviewees one by one.

The research interview was a useful tool to cross-reference some of the data from the questionnaires, but also looked at the issues of policy and prevalence from a broader perspective than that of individual schools. It is interesting that there is a clear discrepancy between the views of the policy makers and those of the classroom practitioners in certain areas. These discrepancies and the consistencies will be examined further in the following chapter.

Chapter Seven

Evaluation of Data: From Assessment to Intervention

“Do not read, as children do, to amuse yourself, or like the ambitious for the purpose of instruction. No, read in order to live!”

[Letter to Mlle de Chantepie June 1857] Gustave Flambert 1821-1880

Introduction

7.1. Issues arising from research

7.1.1. Educational versus medical model definition

7.1.2. Joined up policy

7.1.3. Discrepancies between schools

7.1.4. Welsh issues

7.1.5. Definition Issues

7.1.6. Dyslexia Friendly Policy

7.1.7. Evidence of good practice

7.2. Evaluation of the methodology

5.2.1. Issues arising from Interviews

5.2.2. Issues arising from Questionnaires

7.3. Policy

7.4. Ethics

Introduction

Chapter seven provides an evaluation and appraisal at the completion of the data collection phase of the study. The aim of this section of the thesis is to draw together the topics and issues explored during the course of the investigation, and to reflect upon the research questions set out at the beginning of the study. An evaluation is also provided of the methods used and matters relating to validity, reliability and the rigour of the study are addressed.

At the commencement of the study, objectives were identified so as to recognize the numbers of children acknowledged, by schools in Wales, to be dyslexic or to have dyslexic tendencies, and also the identification of policies within the twenty-two local education authorities in Wales, that related to the support for children with this condition. The present research was conducted with the overall aim of gaining a better understanding of the “typical” experience of a child with dyslexia in a school in Wales. This was with a view to investigating the appropriateness of the policies in place within individual schools, and the overarching policies within a particular local education authority.

As far as specific objectives were concerned, the researcher believes that chapters five and six have equipped the reader with a good understanding of the range of policies implemented in Welsh local authorities, their implementation and organisational differences. Moreover, in that research is essentially a broad ranging public process, it is maintained that this learning is of general use and application, and further that the scope of the findings described makes this study a significant and original contribution to knowledge. Further, by identifying appropriate and relevant data both qualitative and quantitative (chapters five and six) it has been possible to explore many factors and variables which may be said to have impacted upon the development of new and original material.

7.1. Issues arising from research

7.1.1. Educational versus Medical Model Definition

Research into brain processing (Shaywitz, 2003; Knight & Hynd, 2002) takes us beyond the more simplistic discrepancy definition, which was commonplace up to the late 1990's. The implication of a discrepancy model is that once a child has caught up with their reading problems, and is reading at normal or near normal levels for a child of his/her age, that the individual ceases to be dyslexic. Studies by Bruck (1990) and Elbro et al. (1994) cited by Frith (1997) show persistence into adulthood of all the *underlying* problems involving phonological processing, impairments in visual ability and difficulties with motor control. Brain imaging studies (Paulesu et al., 1996; also cited in Frith, 1997), show that in dyslexic adults who appeared to compensate well for their dyslexia, and were capable of performing simple phonological tasks, the brain activity involved in performing these activities was abnormal. It is clear from these studies that 'dyslexic children become dyslexic adults'.

"Dyslexia is not a disease which comes with school and goes away with adulthood" (Frith, 1997, p.8)

The studies discussed by Shaywitz (2003), show that MRI (magnetic resonance imaging) scans, which allow neuroscientists to visualise the inner working of the human brain, reveal that dyslexic readers use different brain pathways than skilled readers. These scans show that even when the dyslexic reader is able to compensate for their dyslexia, and read more effectively, they are still using different areas of the brain to the more competent readers, to try to compensate for the disruption that is apparent in the rear lobes of the brain.

Dyslexia appears to run in families, having a parent or sibling who is dyslexic increases the probability for any child in that family of being dyslexic. Between a quarter and a half of the children born to dyslexic parents will also be dyslexic (Shaywitz, 2003). Recent studies (Grigorenko et al., 2003; Fisher et al., 2002) have shown that Dyslexia is probably carried as a genetic trait. Advanced complex research is being conducted to ascertain the elaborate nature of this genetic element in dyslexia.

Anatomical research of the brain during post-mortems (Galaburda et al., 1985) has identified physiological differences in size and symmetry of the brains of dyslexic individuals. In other words, the brains of dyslexic persons *look* different.

With all this exciting and emerging knowledge about the physiological, anatomical and genetic origins of dyslexia, it is interesting that in the questionnaire over half of the respondents still saw dyslexia as purely an educational matter. Over 20% saw this as a combination of medical and educational and a small percentage 14.8% regarded this as a purely medical matter. The dangers of attributing dyslexia to a purely educational problem is the implication that if enough, high quality or innovative teaching programmes are put into place, that these children can be “cured”, and returned to mainstream education, ‘cut adrift’ with no further support, assistance or resource funding. If the research in this area is correct then this is not possible, and although children can be helped and scaffolded to use the gifts that they have, to overcome some of the overt difficulties that they experience in school and make academic progress, this will not ‘cure’ their dyslexia, but only allow them to see themselves in another light; to believe in themselves and thus allow the ‘square peg to fill the round hole’ enabling the child with the right sided brain to work in a world of left sided people.

Interestingly, when interviewing the policy makers from the local education authorities, this emphasis upon an educational origin for dyslexia becomes even greater, with no returns for a medical model, and an even higher percentage of replies, 63% of the sample, falling on the side of an educational explanation and a slightly higher return for an amalgamation of the two models; although it is not known from the survey the suggested weighting of this blend, either by the schools or the local educational authority representatives.

An educational causal explanation for dyslexia is in some respects an appealing option, what is required is a ‘quick fix’, an innovative programme introduced across an authority that will ameliorate the burden upon the organisation, and allow children to compete again on equal terms with their peers. The final question in the interview shows a range of programmes currently in place across Wales such as DDAT, Toe by Toe and Rainbow Route.

In discussion with the local authority representatives, it became clear that an 'exit policy' was in place in many of the areas. An exit policy was described as a point, predetermined by the policy makers for each authority, at which children with dyslexia no longer needed the support and financial resources to be able to access mainstream education and fulfil their potential. This could be described as the point at which a 'cure' has become effective! Of the twenty-two local educational authorities surveyed ten (45.5% of the total sample) had in place an exit policy. This exit point ranged from an arbitrary reading age, conducted on unspecified reading tests (the manner of assessment of reading age was different for different schools within an authority), to a more subjective assessment made by teachers on observational evidence. The reading age at which a child no longer qualifies for support, either through School Action or School Action Plus could be as low as a reading age of eight to nine years. The criteria for the exit policy was always made upon reading skills and literacy based elements, although when asked to define dyslexia many schools demonstrated a more eclectic approach, and included physiological criteria such as clumsiness and poor co-ordination, and social and emotional criteria such as low self esteem and disruptive classroom behaviour.

7.1.2. Joined-up Policy

The Education Act (1993) was followed by the Code of Practice in Wales (2002), both documents focused upon a principle of equal opportunities, and recognised that each child was an individual and encouraged an assumption of inclusion, this seems to be reflected throughout Wales, in question two of the interview it is clear that the process of statementing children with dyslexia, is very much in decline. However, it is also clear that beyond that basic principle there is very little joined up practice across Wales. Already discussed has been the issue of an exit policy, which is a policy practiced in just under half of the authorities in Wales, but not in others. However, even within authorities there is a huge difference, for example, with reference to questions nine and ten in the questionnaire. These show that there is a wide range in testing processes employed by the schools and educational psychologists, and in question fifteen, when reference to physiological tests is made, it can be seen that there is little or no agreement between the schools as to what constitutes a

physiological test, or even whether this was an appropriate test to employ to assess dyslexia. This would imply that where there is good practice being conducted, that it is not being shared between authorities or even between schools within authorities.

Differences in definition of dyslexia are clear in question 4b in the questionnaire, where twelve different definitions were put forward by the schools with a significant number giving no reply to this most basic question. It can be seen in this question that there is still a heavy reliance upon a deficit model of definition. Even between the local authorities in the interview, there was great uncertainty, with almost a third of the sample uncertain about a distinction between specific learning difficulties and dyslexia, indicating confusion within a significant number of the authorities as to how this condition can be distinguished. Differences in definition then are manifest, and this lack of a clear and transparent focus evidently affects the policies and provision of screening and remediation. When authorities were asked what screening procedures were in place, this confusion becomes even more apparent with over 40% of the sample having no screening in place. If the number of authorities who leave this to the schools' own devices to arrange is considered, this becomes well over half (54%) of the sample, that do not appear to have 'joined-up' arrangements for this to take place for the children in their care. This state of affairs therefore becomes a bit of a 'postcode lottery' as to what will be offered in the way of assessment and remediation for any child in Wales, being dependent upon where a child lives as to the treatment that they will receive.

Children who are dyslexic, and for whom Welsh is their first language, undoubtedly encounter particular problems, as 31.4% of the twenty two authorities made no allowance at all for children with Welsh as their first language, and only two of the sample, that is 10%, made this a priority. Comments made during interviews with authority representatives related this to the difficulty of obtaining enough Welsh speaking educational psychologists specialising in the diagnosis of dyslexia in bilingual children. Welsh is a core subject in the National Curriculum in Wales throughout the key stages, and many schools across Wales are designated Welsh medium schools (Ysgolion Cymraeg), where the entire curriculum is taught through the Welsh language. This is particularly prevalent in the North and West of Wales. Despite this, the policy across Wales varies from one authority to another and even

between one school and another; in question (13) of the questionnaire, almost one third of the sample did not make allowance for children for whom English was not their first language.

The process of statementing children for dyslexia across Wales also appears to be confused and disparate, with a significant number of the authorities not using the statementing process at all. All schools are advised in the Code of Practice in Wales (2002) to use the policy of School Action and School Action Plus, but the numbers of children statemented from that policy ranged from nil to 200. This wide variation implies that the authorities are working in an insular fashion and not offering children that equality of opportunity across Wales, as suggested by the Education Act (1993) and Code of Practice (2002). The figures shown in chapter four, on diagram 2c are what could be expected by chance alone and do not indicate that authorities are working together for a of sharing good practice. Waiting times for children with dyslexia in Wales, between referral and either statement or action under the School Action policy, again vary from 'none', to up to one year, at 13.5% of the sample. At a time when children are trying to learn to read, a wait of one year before action is taken to help the child can have a profound and negative effect upon the all round development of that child. Once again, this disparate range seems to be the cause of a "post-code lottery", and it depends upon where the child lives as to how quickly action is taken to support that child and his/her family. Diversity between authorities that should contribute to a richness of the educational experience across Wales appears to be disadvantaging children who live in certain areas. According to a spokesperson for the Welsh Assembly Government reported in the Times Educational Supplement (29/06/2005), the funding formula for the funding of special educational needs is based on the number of children with "elements reflecting deprivation". The fairest way to assess this, according to the report, is the numbers of children entitled to free school meals in a school. Each authority is then entitled to allocate the resources to SEN as they wish, but they point out that statements are "too expensive".

7.1.3 Discrepancies between schools

Prevalence rates for dyslexia in schools in Wales, in terms of referrals and statements, identification and differentiation, are demonstrably wide and varied, with the number

of referrals as high as twelve per year in some schools, to as low as nil per year in others. These figures are broadened still further, when the schools involved with the questionnaire were asked how many of these then went on to be diagnosed with dyslexia. Problems relating to a clear identification of prevalence must centre on the probability of consensus of definition between schools. Without that consensus, any reliable prevalence figures are impossible to ascertain. Understanding whether schools are comparing like with like and ensuring that a child diagnosed with dyslexia in one school is going to be accepted as dyslexic in another, is vital to the estimation of prevalence figures. Without this certainty, it is difficult to ensure a level platform, and almost impossible to validate even the existence of a condition or range of conditions, called dyslexia, without intensive brain imaging or clinical investigation. After all, how is it possible to devise a standardised testing process for a condition that cannot be clearly defined? What are we testing, and how will we know when it has been tested? There are now a wide range of screening and diagnostic tests available that can be easily used by teachers, and the “Testing Questions” recorded in Chapter Five, section 5.3.4., show clearly that a wide range of tests are used throughout Wales.

Reading tests are the most commonly and extensively used tests for dyslexia in Wales, but also spelling tests, writing tests, and less extensively physiological tests. This test can help to identify quickly a profile of strengths and weaknesses in the child, and this data can be used to form an initial assessment of a child’s ability to access the school curriculum. However, without a clear agreement between the schools as to what combination or weighting of the combinations of strengths and weaknesses add up to dyslexia it is impossible to make fair comparisons between the prevalence figures between the schools. Whatever the weightings are, it is clear from the data that there are wide spread discrepancies between the number of children being diagnosed from school to school and from LEA to LEA. This range presumably translates to the level of support received by the children from these schools and authorities and therefore implies that a child diagnosed with dyslexia in one school or authority, and receiving support, would not necessarily receive support in another school or authority.

Reliance upon reading as the primary determinant was clear when schools were asked if they weighted some signs more highly than others. One problem with using reading

as the primary determinant is that children need to be at a stage when they would be expected to be able to read fluently (usually 8-11 years of age), before any form of diagnosis can take place. It is apparent in chapter five figure 6b. that the majority of the children in Wales referred for testing come from the 8-11 years age range. Reading is a learned skill and clearly if we accept (BDA, 2005) that dyslexia is constitutional in origin, then children have been dyslexic all their lives, and a delay of eight years of a child's life before support can be put into place to aid this child's overall learning and skill acquisition, could have a seriously deleterious effect upon the chances for that child to access the education that they need. By eight years of age, the child's behaviour can already be set, and negative emotional and behavioural reactions could arguably, already be irrevocably in place.

Clear divergence of policy also exists between schools in Wales in the access to the assessment report. In order to make any progress with a child, a teamwork approach will be vital, with clear acknowledgement of the important role of the parent, the family, the teacher and other specialist professionals. A child who is dyslexic is dyslexic in the home, in the bath, in the park, the supermarket and the school. This is not a condition confined to the school environment, and to assume that support for a dyslexic child will be sufficient for the six hours of the day that they are at school would be presumptive. Children are dyslexic long before they start to read, and what is needed in Wales is a more coherent and cohesive policy to clearly define a multifaceted condition, coupled with early screening, which could prevent children from accessing the education system.

Crombie, Knight and Reid (2004) suggest that early identification, which leads to the opportunity for early intervention, is essential for the development of appropriate curricula and strategies for children with any learning difficulties and dyslexia can be included with this. They suggest that early identification can lead to unnecessary labelling. It could be claimed, however, that without the label the appropriate intervention cannot take place.

“Intervention should come first, and the intervention should not be based on the presence of a label but, in fact, on the identification of need”

(Crombie, Knight and Reid, p. 204 in Reid and Fawcett, 2004)

The involvement of parents is seen as a key factor in the development of reading (Topping and Wolfendale, 1985). If parents are to be made to feel involved, then all assessments made upon their children should be readily and unreservedly available to them. It is interesting that whilst parents may well eventually obtain sight of the report (no information about that aspect is available within the data), that a significant number of schools do not automatically reveal the contents of the report to parents (figure 22b). There was no co-ordinated route, for the distribution of the report and consultation, across Wales. This suggests that there is a variance between schools in their commitment to the partnership with parents, as suggested in the Code of Practice for Wales (2002). A true partnership would involve keeping parents updated and informed at each stage of a child's education, particularly when there are concerns about that child. Paying 'lip-service' to a parental partnership will not assist a child, whether they do later go on to have difficulties or differences of learning style or not. Only when parents, teachers and other professionals come together to work as a team, to intervene early, to ensure that all support strategies are in place to help the child *before* that help becomes apparent, will the best use be made of the resources available. A fully co-ordinated response to the child's needs will involve open and honest communication with parents, teachers and other professionals and from the data received in this research this co-operation does not appear to be happening in all schools across Wales. The study does show an uneasy relationship between schools, Local Education Authorities and parental partnerships. Possibly this is a confusion between the concepts of "partnership" and "participation". The partnership model was clearly not favoured by everyone (Chapter 5, figure 15c). A partnership involves teachers and parents working together.

An area of divergence between schools is the time in which children are required to wait between referral and assessment. This appears to vary from under 3 weeks to 1-3 years, depending upon which school and local education authority the child is attending, (Chapter 5, figure 7b). As the largest group, according to age, is referred for their assessment in the data is 8-11 years of age, which could imply that many children referred at the age of eleven years old are not diagnosed with dyslexia and therefore receiving support and remediation until the age of 13-14 years. By this time, it is, arguably too late to prevent the emotional and behavioural symptoms of dyslexia

from developing and inhibiting the child's ability to access the curriculum for almost all of his/her school career. The data (Chapter 5, figure 6b), also shows a small number of children not referred until sixteen years of age, presumably having gone through their whole school life underachieving and attempting to compensate for their disabilities and poor reading, even avoiding the practice of reading and writing altogether and thereby compounding the problems experienced.

It is apparent from the data (Chapter 5), that despite the move towards the Dyslexia Friendly Schools Initiative, that testing for dyslexia is still a commonly used procedure in schools in Wales. The most commonly used criteria for diagnosis is the discrepancy between actual reading age and expected reading age. This discrepancy is tested in schools with standardised reading tests, but as can be seen from chapter 5 figure 3.3.4. question 18 that the range of tests used is wide.

The divergence of agreement of a definition for dyslexia, shown in Chapter 5 question 4, possibly accounts for the range of testing methods and processes used by the schools across Wales. Reading tests, as already indicated earlier in this chapter were the most commonly used, but the tests employed were many and various. Ten of the named tests were used plus a range of other tests to a smaller degree. Schools, however, were not asked to identify the age groups with which they used the various testing batteries, and this in retrospect could have accounted for some of the range, but it is evident in the data in chapter three, that even if this age difference is accounted for, that this divergence of testing process is wide, and does not allow for a like for like comparison for children across schools and between local authorities. This might be particularly difficult for children when they need to change or move schools, especially if this move is between authorities within the principality.

The number of schools employing a spelling test was less common than the number of schools using a reading test, but once again there was a wide variation, (Chapter 5: 19a). A range of ten different methods of assessing children's spelling abilities was used in the schools responding to the survey, from standardised testing procedures to teacher observation. Once again this presents difficulties with standardisation of assessment across the schools in Wales and an uncertainty of whether schools are comparing like with like. A significant number of schools, in excess of 20%,

employed no spelling tests at all, and possibly did not see spelling as an important aid to identification of a specific learning difficulty.

A small number of schools used a writing test as part of their testing process and most of these (Chapter 5: 20 a,b,c) showed that teacher observation was used. This would appear to be vulnerable to bias and subjectivity in the teacher's judgement, related to the teachers experience and expertise unless a clear observational framework is in place.

Physiological tests, relating to the testing process appear to be the least well used (Chapter 5: 15 a,b,c), and possibly did not appear to be seen as important to the overall diagnosis for dyslexia, with just over 25% of the sample using a physiological test, including sight and hearing tests. Eight different categories of physiological tests were identified, showing once again a wide variety of process, and reflecting the lack of clear assessment instruments to identify children with dyslexia and possibly highlighting the fine line between identifying children who are dyslexic, rather than screening for children who may be at risk.

According to Reid and Wearmouth (2002) the assessment for identification of dyslexia needs to be both formative and summative. The formative assessment is to collect information and evidence about a child's development, and to plan the next step in his/her learning plan. The child is tracked across a period of time until a summative assessment is made at certain intervals when achievement is recorded to provide a global picture of the learner's development to date. The data from the survey of schools in chapter five showed that most schools did review the status of the children identified as dyslexic on a regular basis, but the interval between those assessments varied widely from termly to bi-annually. It is clearly important that children are adequately monitored throughout their learning, and that regular assessments are made, in order to establish how teaching and learning will proceed; never more so than when a child has particular needs, which need close monitoring and careful tracking to ensure maximum efficiency of the intervention and remediation in terms of learning for the child, and financial resources. Clearly though the purpose of the reviews needs to be considered carefully and if, as in the case of over 44% of the local education authorities, the purpose of the review is to "exit" the

child from the remediation, this is unlikely to be beneficial to the child's learning in the future.

Bi-annual reviews do appear to be very widely spaced to ensure a good range of formative and summative assessments to take place for the benefit of the child, and is unlikely to be able to inform the individualised education plan for the child, and result in any worthwhile adjustment to the intervention and remediation to take place, by responding to the individual needs of the child.

7.1.4. Welsh Issues

The research questionnaire was distributed to schools throughout Wales on an entirely random selection. No account was taken of whether the schools within the survey were English or Welsh medium schools. The questionnaire was therefore distributed in both English and Welsh to all schools and translators were available to translate any questionnaires returned in Welsh. Each school was asked what allowance was made, in the testing process, for children for whom English was not their first language. Almost a third of the sample, 33%, admitted that they did not take a child's first language into account at assessment. In a bilingual principality, it is surprising that for such a high percentage of children their first language was not considered.

This issue was further demonstrated at the interview stage, when each policy maker interviewee was asked what allowance was made for children for whom English was not their first language. In the interview it was made clear to each respondent that the interviewer had a particular focus upon children for whom Welsh was their first language. In this question almost 32% of the authorities said that no allowance was made and a further 22% of the authorities made very little allowance.

The Welsh Language Scheme of the Welsh National Assembly is based on the principle contained in the Welsh Language Act 1993, and the Government of Wales Act 1998, that the Welsh and English languages should be treated on the basis of equality.

“The aim of the scheme is to reflect this principle in all that we do which is of relevance to the public in Wales” (Welsh Language Scheme, 2002, p.214)

It is surprising that in a principality where the use of Welsh is so embedded into the everyday life of the people living in Wales, that there is so little apparent support for these children and their particular needs.

Children whose first language is not English and who are dyslexic are doubly challenged, firstly coping with the linguistic challenges of a second language and secondly coping with the stress of their own disability. It is therefore particularly important that bilingual children are assessed as early as possible to enable the appropriate support, in the appropriate language, to be put into place. It would seem to be imperative for these children to have the support in their first language. In the past, according to Peer and Reid (2000) multilingual children have frequently been misdiagnosed or are ignored, with their difficulties explained by their background or poor language skills etc. It could be possible that this misdiagnosis is a consequence of this lack of proper consideration for their first language.

The principality of Wales is a small country of no more than 20,779 square kilometres and according to the 2001 census by the Welsh Language Board, a population of 2,903,085, with a culture distinct from the rest of the UK. Due to the mountain ranges it divides into three distinct geographical areas of North Wales, Mid Wales and South Wales. Each area is quite distinct in its language, culture and traditions. The language in South Wales is, for example, very different from the language in North Wales, making it extremely difficult to develop a culture fair assessment test which could be used throughout Wales. According to the latest census figures in Wales (2001) by the Welsh Language Board, Welsh is spoken by some 21% of the population, but this varies geographically from under 7% in Gwent to 61% in Gwynedd. The census 2001 shows that 39% of all 10-15 year olds can speak and write in Welsh. The research demonstrates that a wide range of testing procedures are used in the schools and a wide range of standardised tests employed within those procedures, but use of a Welsh language test such as that devised in 2003 by the Welsh Dyslexia Project by Daal, Spencer, Cahman and Hoxhallari is very limited. The 'Wales Dyslexia Screening Test: Provisional Norms' were developed at the University of Wales at Bangor. Apart from the difficulties of the variation in the language across the area, this test also had to take into consideration that many of the children in Welsh schools

differ with respect to the language that they speak in the home. Many of the children in Welsh medium schools are from monolingual English homes and vice versa. Simply translating a monolingual English test into another language does not work, rhymes are not the same, word length, word frequency and word difficulty all vary.

According to Dr Iihan Raman of Middlesex University (Conference proceedings, at the 3rd International Multilingualism and dyslexia conference, Cyprus, 2005) there is a growing body of evidence based on monolingual and bilingual research, that shows that the ability to read is influenced by the transparency of the orthography, that is the relationship between orthography and phonology. In particular alphabetic writing systems in which orthography to phonology mappings are mainly regular and thus predictable. Welsh although a grammatically complex language remains a clear and transparent language with almost complete regularity of orthography to phonology. English on the other hand is famous for being an opaque language with an immense range of exceptions to the rules and deviations from the norm. Welsh is a core subject within the National Curriculum and it is therefore compulsory, for children who attend a school in Wales, to learn Welsh, from reception to year eleven. Whilst Welsh is the first language in many areas, and in some schools children are taught the entire curriculum through the medium of Welsh, in many areas Welsh is introduced into the school, and taught as a second language. It may therefore be assumed that children speaking Welsh were not as likely to be dyslexic as were English speaking children where the language is extremely complex and opaque. It is not possible in this research to divide the Welsh and English medium schools, to enable a comparison to take place, but further research into this area would be worthwhile and possibly revealing.

A difficulty of observing bi-lingual children is the cultural and linguistic bias of standardised tests that are produced in the majority language, and based on the culture of the dominant group. The risk is of misidentification when children are assessed in a language that they have not fully mastered. To enable a truly culture fair assessment for dyslexia to take place, it would seem to be common sense that the assessment should be completed in the language with which the child is most familiar. To enable this to take place in Wales it is essential for there to be sufficient educational psychologists, working within the field of the identification of specific learning

difficulties, who are fluent in Welsh. Only then will they really communicate with the children, make the children feel at ease with the testing process, and accurately interpret the test results. Any shortage of Welsh speaking educational psychologists must have a profound effect upon the chances of Welsh speaking children, particularly those attending Welsh medium schools, achieving a fair and unbiased assessment. According to Michael Davies of the Welsh Dyslexia Project, reported by Nicola Porter in the Times Educational Supplement 20/09/2005, some educational psychologists have even urged families with children with learning difficulties to move them from Welsh to English medium schools to ensure that they are receiving the maximum input and correct assessment. This shortage was identified by a number of schools and authorities taking part in the research, as a difficulty with the testing process as presently undertaken.

The rights and entitlements of the children in Wales must be protected, and there can be no justification for gaps in services or inappropriate provision. Teachers and local authorities must examine the nature of their practices, so that the risks of inadequate provision do not disadvantage or damage the long-term interests of the children in their care. Local education authorities are clearly culpable if they choose to ignore, or gloss over the inherent cultural/ linguistic bias, which could invalidate the use of the testing materials and processes used.

7.1.5. Definition Issues

It is clear from the research data that there are considerable differences between the schools in their definitions of the condition they refer to as dyslexia. Whilst the schools in the research sample overwhelmingly saw this as a deficit between reading and intellectual ability 36.6%, many others favoured a range of other definitions with some schools adopting either the British Dyslexia Association or the British Psychological Society definitions.

According to Susan Tresman, Chief Executive of the BDA in 2005:

“Peruse ten different publications about dyslexia and you will come across ten different definitions” (Tresman, 2005, p.19)

This vagueness of definition was further compounded by the recent channel four documentary programmes "*The Dyslexia Myth*", 8th September 2005, when Professor Julian Elliot cast doubt upon the rather 'fuzzy' definition of the condition that we call dyslexia.

With such a bewildering range of definitions, it is not surprising that there are so many differing ways to approach the identification, intervention and remediation of the condition. However, this confusion also inevitably leads to an inequality of provision for children in Wales, for misdiagnosis and inevitably for some children to "slip through the net" of provision and to go through their schooldays in the belief that they are lazy or just stupid. Without a clear definition, it is difficult to see how a substantive assessment can be made of the condition that is going to be universally accepted, wherever the child lives or goes to school or is employed. Without a universally accepted assessment, a child in Wales is bound to be at risk of a "postcode lottery" in receiving help and intervention, as in one authority they are dyslexic, and in another, they are not.

During the interviews with the policy makers from each local education authority, it was apparent that confusion of definition remained even at this level. When asked whether the authority distinguished between specific learning difficulties and dyslexia an almost even split was shown between those who made no distinction, those who made a clear distinction, and those who saw this split as uncertain. Local authorities were not asked in what way they distinguished, but to some degree this is irrelevant, the important feature is that once again there is a lack of agreement between the areas. By inference, all local authorities agreed that there was a condition known commonly as dyslexia, but how that condition differed from other specific learning difficulties, or indeed, from other children who are poor readers, then the confusion continues. In other words, there is uncertainty at all levels about whether dyslexic children differ in kind or only in degree. Perhaps dyslexia can be defined in more than one-way, and rather than a definitive explanation, it might be seen as a convenient way to refer to a range of learning differences that all coincide in the same person on a continuum of severity. If each of these differences does occur along a continuum, it is not a case that a child is dyslexic or not. The degree of difference will determine how much difficulty a child has, and therefore how dyslexic s/he is. For this reason, any

categorical statement of prevalence must be ruled out and dependent upon the definition employed.

The definition of dyslexia is surely influenced by the causal explanation whether this is a genetic or anatomical difference of the brain, or an experiential difference. Educationalists have never really felt comfortable with a medical model of dyslexia with the implication of it being a lifelong condition that cannot be 'cured' by increased teaching or extended educational intervention. However, with a building weight of evidence from genetic research such as Carden et al. (1994, 1995) and Grigorenko et al. (1997) and increasing research into other physiological brain differences of anatomy and function (Stein, 2001; Stein et al, 2000), indicating a biological causal factor for dyslexia perhaps educationalists need to look further at the idea of a medical model for dyslexia. Certainly, the research sample of schools and teachers in this research overwhelmingly saw dyslexia as an educational matter, 52.6% with 22% classing it as both medical and educational areas. This similar pattern was then replicated when the question was put to the policy makers with 63.6% of authorities going for the educational model and 27.2% seeing it as both. The implication of this is that dyslexia can be 'cured', with the 'correct' input of educational resources and specialist teaching. All that needs to be done is to 'discover' the magic teaching system that will unlock the difficulties experienced by the child with dyslexia in a mainstream classroom. This may then account for the number of authorities which implemented an exit policy for children who had achieved to a pre-specified level, and as a consequence that these children now no longer require the additional educational input to access the curriculum, and go forward in their education on an equal footing with their peers. If authorities were to assume a more medically based model, it could be accepted that this policy of exiting the support would not enable a child with dyslexia to move on in an unbiased, fair and equal manner.

The plethora of reading systems and medical 'cures' are usually geared to helping a child to read, and do not 'cure' the child of their dyslexia, by giving the child the strategies, the crutches, to enable them to read a little better, is not likely to ameliorate the range of symptoms which quite clearly both the teachers and the policy makers accept are part of the condition which they call dyslexia. Examples of these are

numerous with teaching systems such as Toe-by-Toe, DDAT and Rainbow Route etc, all being used in schools in Wales. This is not to decry the use of these teaching systems which no doubt help many of the children who use them, but they cannot be seen as affecting any sort of 'cure', and the children engaging with these programmes still require support with their difficulties, which will not go away.

The range of the testing processes used across Wales demonstrates the confusion that appears to exist about what the condition is and how to best test for it. When schools were asked to record what, in their opinion is a full assessment for dyslexia, in question 5 of the questionnaire, seven combinations of a 'full assessment' emerged. The process questions in the questionnaire show further evidence of confusion; over thirteen different tests, or combinations of tests are used in the schools in the sample. Over twelve different reading tests are employed (question 18), fifteen different ways to assess spelling (question 19) nine methods to assess writing (question 20) and even ten different ways to assess physiological differences (question 15). With such a wide and bewildering variety of tests employed for the condition, how can we be confident of any form of standardised assessment across Wales? With such wildly differing assessments taking place, can we be sure that they are all even assessing the same condition in a fair and unbiased manner?

The final question in the questionnaire asked the schools whether they attached greater significance to some signs rather than others when making their assessments. Over 59% of the sample agreed that they did, but of that group there was very little agreement as to which these should be, with nine different variables cited. This further evidence confirms the uncertainty that exists about the nature of the condition, and the best way to assess for that condition. With this degree of confusion, it is perhaps not surprising that some authorities do not have a clear policy in place for dealing with children with dyslexia (Interview 5).

7.1.6. Dyslexia Friendly Schools Initiative

The British Dyslexia Association is backing a policy of Dyslexia Friendly Schools initiated by Neil MacKay in the early 1990's, in a school in Flintshire, North Wales, with the production of their Dyslexia Friendly Schools Resource Pack (2005, 5th ed).

It is however important to examine this policy carefully and to look at how the policy is being put into practice. Many of the schools mentioned in the questionnaire that they supported Dyslexia Friendly policies, but what does that mean? Support does not automatically imply that the policies are in place, or indeed that there is a homogeneous view of what that policy may mean. It has been established already in this research that there is confusion of terminology, and a lack of joined up practice across the local authorities. “Dyslexia Friendly” is a very elastic and malleable phrase. It sounds a convivial and accessible phrase, which conjures up an image of schools and authorities that have adopted a very inclusive and welcoming stance towards children within their authority with dyslexia. The British Dyslexia Association has even established a quality mark to promote the dyslexia friendly schools initiative.

“to promote excellent practice by the LEA as it carries out its role of supporting and challenging its schools to improve accessibility to learning to more children” (BDA Resource Pack...BDA Quality Mark, 2005)

Probably no one would argue with the sentiments of this statement. Currently there are twenty-five Local Education Authorities involved in a pilot scheme for this project, but none of these is presently in Wales.

Teaching today is a high stress intensive occupation, and with new government initiatives for education materializing on an almost weekly basis it is hard for teachers to keep up with the new policies, practices and targets. Most teachers are conscientious and want the best for all the children in their care, but finding the time, and sometimes the finance to do any more may be problematic. Neil MacKay (2004) the instigator of the Dyslexia Friendly Schools initiative recognises that the ‘cornerstone’ of the initiative is that there is at least one trained teacher in every school. To achieve this objective is an immense and ambitious task, requiring not only initial training but also ongoing training available because as one teacher leaves a school another needs to be receiving the training in his/her place. In the research data, (interview question 11), none of the authorities claimed to have a trained teacher in every school, but four of the twenty two Welsh authorities acknowledged that there was a trained teacher in most of their schools and some learning support assistants. If this basic requirement is at the heart of the initiative being successful then the

remaining eighteen authorities need to be reviewing their policy provision. Policy is not only a strategy discussed in the corridors of government, if it is to mean anything then it needs to be translated into the practical classroom setting, and to be seen in action.

A policy statement can define good practice, but policy needs to be supported, by more than just wise words. For most policies to be implemented in the classroom a financial commitment of one sort or another, needs to be in place. High quality professional development for teachers, supply teachers, learning support assistants, and governors (a whole school approach), can be expensive, particularly when that training leads to a recognised qualification. If these expensive, targeted resources are to match measurable outcomes, and be attractive for staff to engage with, then nationally recognised awards are preferable, offering a more standardised experience. This type of professional development is extremely expensive to implement on an ongoing basis. In the research data, almost 32% of the local authorities made either British Dyslexia Association courses, or multi-sensory teacher training available to the staff, and these were either fully or partly funded by the authority. However, almost 10% of the authorities claim that training is offered, but not taken up by most schools. In incidents such as this, perhaps the authority should investigate why staff are not taking up the professional development offered, for example, could this be a funding issue or a timing issue? A further 10% of the authorities encouraged their schools to purchase training packs for in-house training days, however, when schools have so many other financial demands made upon them, and so many of their allocated inset days taken up with updating knowledge of the many new government initiatives and targets, it is understandable that without specifically allocating time for such training that it may often be 'squeezed out' by a prioritised system of inset training.

A Dyslexia Friendly school, according to both the British Dyslexia Association (2005) and MacKay (2005) "*enjoy the trust of parents*" (p. 215). This partnership with parents is seen by advocates of the Dyslexia Friendly Schools Initiative as a key element of the approach. Schools that have processes in place for notifying parents of their concerns are seen as vital to the award of the quality mark. Listening to the parents concerns at formal and informal meetings is also seen as vital to establishing

trust with parents. A two way communication system needs to develop, breaking down the barriers of teachers and schools “knowing best”, where parents are intimidated by their own experiences of school particularly if they have had their own literacy difficulties. To do this *all* staff need to be actively working towards that partnership, for an intimidated parent only one negative comment or unsympathetic staff member can undermine all the work of the partnership policy. The research data from the local education authority interviews showed a wide range of support given to parents across Wales, depending upon where they live, from no support identified, to an extensive assortment of support mechanisms available to parents of children who are dyslexic. However, the interviewer did report some disturbing comments from the policy makers:-

“Parents are just a ----- nuisance”

“Pushy parents always get their own way”

This is not to say that this represents all authorities or all policy makers, but for any member of staff working at whatever level to respond in such a non-constructive style to parents, demonstrates that negative attitudes to dyslexia do still exist and need to be overcome before Wales could truly be said to be Dyslexia Friendly.

It is difficult to claim any sort of “Dyslexia Friendly” status for Wales when so little account is taken of the children’s native language, as discussed earlier in this chapter. It is not easy to claim “Dyslexia Friendly” status when a significant number of schools in Wales claim that dyslexia cannot be differentiated from other learning difficulties. Once again, the absence of a clear definition of dyslexia is impeding the progress of putting successful intervention and remediation in place for these children. Could it be that this warm and welcoming title, “Dyslexia Friendly”, is being used to lull parents and children into suspending their demands for statements, which will provide the legislative backing for their resource needs, and eventually their important compensatory strategies for further and higher education?

7.1.7. Evidence of Good Practice

Any testing process is going to be stressful for any individual, but never more so than for the child whose self esteem is low, and who has managed his/her school life by

adopting coping strategies such as avoiding academic work or disrupting lessons with inappropriate or clowning behaviour. The results of a child's early school failure can have devastating consequences, with emotional trauma, loss of self-esteem and family disruptions. A child who has been told so many times that s/he is lazy, stupid and a 'waste of space', will under a self-fulfilling prophecy, begin to believe what s/he is told about him/herself. Putting that child under the spotlight of a battery of tests, which in the child's eyes are going to "prove" that s/he is lazy, stupid and a 'waste of space', is an immensely stressful experience and highly likely to affect the results of the testing process.

"People are all programmed in such a way that stress turns on the fight or flight mechanisms of the brain, which override any other processes. Many dyslexic students find that classrooms and teaching situations can automatically trigger these responses despite their best intentions and motivation" (Mortimore, 2003, p.119)

Arguably, the reduction of stress associated with the fear of failure, along with a sense of warmth, intimacy and shared interest between the "tester" and the child will result in positive outcomes. The "tester" needs to set the pre-conditions for the testing situation to ensure low stress and high motivation.

Worster and Carson (1982) reported improved reading test scores when stress reduction procedures were in place. Requiring poor readers to read out aloud or complete innumerable test procedures are regarded as stressors, inhibiting successful outcomes. The Bullock Report (1975) referred to evidence that boys, with reading difficulties were more than twice as likely to show anxiety or lack of concentration, and relate reading difficulties to problems such as aggression, anxiety and depression. Butkowsky and Williams (1980) showed that although "poor readers" were not necessarily "disturbed", their approach to learning tasks was adversely affected by their difficulties.

Chapter 5 question 14, shows that well over half, 68.5% of the survey sample believed that they do take into account emotional and behavioural difficulties when making their assessments of the children. The number of schools stating that they do not see

this as an issue account for a very small percentage of the sample at 12.4%. This is clearly an example of good practice that should be repeated in all the schools across Wales.

Family histories of children with dyslexia have shown indisputably that dyslexia has a strong familial link (Stein, 2004). This does not necessarily imply a genetic link, because members of the same family share the same or similar environments and upbringing. However, it does indicate that any assessment for dyslexia should involve recognition of a child's family history, as a child with reading difficulties, who is suspected of having dyslexia, from a family, which has several dyslexic members, is more likely to be dyslexic than the child who is the first dyslexic in the family. Other links to medical history have been made in the past, for example links to children who have suffered from "glue ear", and other intermittent auditory problems, (Webster and Woods, 1989; Peer, 2005). Links have been made to visual disturbances and intermittent visual impairments (Chapman and Stone, 1988). All these indicate the importance of accessing the child's developmental history as part of a full assessment for dyslexia.

In chapter 5, question 17, there is clearly an example of good practice in Wales that over 83% of the schools admitted taking at least some account of the child's family and medical history before making the final assessment. This is another example of the need to assess the "whole" child before making an identification of dyslexia.

It could be argued that the effectiveness of parental help with literacy is dependent upon the warmth and intimacy created between the parent/carer and child (Miller, 1987). This study demonstrated the importance of providing sufficient support to parents particularly when they became involved in helping children with learning difficulties. The parents of children with dyslexia frequently experience considerable problems in obtaining the provision that they consider their children need (Pumfrey and Reason, 1991), because of almost professional "tunnel vision" of the workers in the field, who often fail to appreciate the value of an interdisciplinary approach, and the co-operation of the parents/carers to predicting and alleviating dyslexia. No single professional has a "freehold" on expertise and all parties involved, including parents,

the child and the full range of professional workers need to pool their expertise and understanding to help the child with dyslexia.

Schools that enjoy the trust of their parents/carers, respond rapidly to their concerns, and understand the fears that they may have for their children. The data from the survey showed (Chapter 5: 16) that information from the child's parents was the most regularly used information to aid the assessment, with 80.4% of all respondents claiming to use this information to inform their judgements and evaluations.

The Code of Practice in Wales (2002) encourages all teachers to value and work with their parents to provide a co-ordinated partnership to ensure that the parents too feel empowered and understand that they have a role to fulfil as parents of a child with dyslexia.

Another example of good practice that has emerged from the research data is the number of children who are assessed so quickly, with almost 50% of the total returns giving a delay of between one month and eleven months and 71% of the sample assessed within one year of referral. Crombie, Knight and Reid (2004), accept that early identification and early intervention are essential to ensuring that strategies are put into place to assist children with literacy and language difficulties. Once children have been identified as being at risk, every effort must be made to have a full assessment of need as early as possible, to ensure that the correct support is put into place. Some teachers and educationalists may be concerned that this may be labelling a child too soon, and this may lead to discrimination and unnecessary barriers to learning. However, in the present system in Wales, that "label" is the key to accessing the support required by the legislation. Young and Browning (2004) estimate that in America two thirds of all children with dyslexia in schools are not receiving the support that they need because they do not have the "label" which comes with the assessment. Common sense may tell us that the earlier the support is in place the easier it will be for the child to overcome some of the barriers to learning, more detailed research into this area would be beneficial. In the past teachers may have been reluctant to assess a child for dyslexia in case their interpretation of the screening and assessment was wrong.....with the younger child, there was the possibility that s/he might "grow out of it", so for some teachers there was a policy of

“wait and see”. It is now recognised that early intervention is crucial, (Macintyre and Deponio, 2003). Assessing children as soon as possible following referral is important and a best practice scenario for enhancing the life chances of that child.

It is apparent from the data in chapter five (questions 5 and 12), that some schools are recognising that dyslexia is not one condition, but on a continuum of several conditions with a range of situations between them. Assessment for dyslexia is not a simple process and will involve a variety of testing and observational procedures. Assessment of a child for dyslexia involves assessment of the ‘whole child’ and no one universal test can be used to make that conclusion. Some schools within the sample had recognised that dyslexia was more than a difficulty with reading and writing but possibly related to other cognitive and automatizing skills, social and emotional interactions, articulatory and phonological awareness and motor skills and balance impairment.

In chapter five (questions 4 & 5), a wide range of “symptoms” is described by the schools as contributory to the condition and in question 5 this range is reflected in the types of assessment that the schools employ. This range could demonstrate confusion with the terminology and a lack of understanding of the continuum described above, but the inclusion of so many different identifying criteria does mean that in some schools in Wales there is a good understanding of the condition, which should be shared with other schools. Only when schools make a clear identification of the condition can appropriate remediation and planning for this be introduced.

More than half of the settings contributing to the research used two or more sessions with the child before making an assessment. As has already been indicated the assessment for a multifaceted condition such as dyslexia is a complex process that must take account of the holistic development of the child. Meeting a child on only one occasion, as is common to many psychological assessments undertaken by educational psychologists, is going to limit the scope of the assessment and give rise to the potential for error. Assessing the child on the strength of one day only gives a snapshot of the child on that particular day, and there may be many reasons why s/he is under performing on that occasion, the child may be ill, stressed or even may react negatively to the assessor. Children with dyslexia frequently have difficulties with

concentration and attention span and cannot focus for long periods of time to show their true ability (BDA, 2005). The effort of concentration required for a child who is dyslexic is often disproportionate to the task s/he is attempting and therefore these children frequently tire easily (BDA, 2005). Undertaking one assessment session to cover all the elements required for such a multifaceted condition is unlikely to be effective unless other supporting evidence is considered.

Changing conceptualization and terminology add to the confusion when attempting to identify difficulties that lie on a continuum, have no universally agreed definition and where no one assessment tool confirms existence. Yet it is the school's duty to identify difficulties and a child's right that appropriate accommodations be offered in an inclusive context. It would therefore seem important that the assessment process ensures a holistic assessment of each child."

(Reid and Fawcett, 2004, p.330)

Having identified a child as being dyslexic, or having dyslexic tendencies, a plan of learning strategies can be developed to suit the individual needs of the child, an individual educational plan (IEP). According to the Special Educational Needs Code of Practice in Wales (2002), these IEP's need to be kept continually under review and once an IEP has been drawn up, they should be reviewed at least three times a year. In more than 87% of the research sample, reviews are taking place in schools in Wales, and this is clearly an example of good practice. In just under half, 47.94% of the reviews are termly, or three times a year, as suggested by the Code of Practice (2002). According to the Code, any child with a statement must be reviewed at least annually; over 84% of the sample did make at least one review per year of the children's progress.

Good practice such as this should be extended to all schools throughout Wales, to the benefit of all children. All schools need to constantly monitor and reassess their procedures and to assess whether their policies are working in practice to meet the needs of their children. Whole school targets need to be discussed and made explicit to all staff who must understand the need to place the child's own needs to the forefront of their school policies.

Chapter 8

Conclusions: Where to Now?

(Implications for Policy: Impact on Practice)

Introduction

“A man who attempts to read all the new productions must do the same as the fleas do —— skip!”

[Samuel Rogers 1763- 1855 Attr.]

8.1. Conclusions

8.1.1. Standardisation and policy

8.1.2. Parent partnerships

8.1.3. Training

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8.1.5. Literacy in Wales

8.1.6. Policy and prevalence

8.2. Recommendations and implications

8.2.1. Proposals for future policy and practice

8.2.1. a. Global level

8.2.1. b. National Level

8.2.1. c. Local level

8.2.2. Suggestions for further research

8.3.Final Words

8.3.1. Getting it Right; The Summary

8.1. Conclusions

This chapter discusses the changing definitions of dyslexia, and the importance of achieving a universally accepted definition for the effective intervention and remediation of the condition, because as definitions change so too do the curriculum, the teaching and the assessment. The definition drives the curriculum and the policies, and hence the concept of prevalence. Only with a clear definition, can there be an

estimate of the implications for practice and what possible further research is necessary.

This section of the investigation also attempts to draw together the threads of the research and examine their implications for local education authorities in Wales, and policy formulation both in Wales and with a more global perspective. This in turn affects the day to day lives of children in Wales who are diagnosed with dyslexia, or who are seen to have profound difficulties with their literacy skills, and as a consequence their self esteem and capacity to enter employment and form relationships.

8.1.1. Standardisation and Policy

Within the principality of Wales, there are twenty-two local education authorities. It is clear from this research that between them there is very little joined-up working and sharing of good practice. Each local authority is working independently of the others to 're-invent the wheel', and opportunities are being missed to establish a "Whole Wales Policy" for the identification and management of dyslexia in schools across Wales.

The phenomenon of dyslexia will not receive the recognition that it needs to be placed at the forefront of every teacher's mind, thus impacting upon the development of whole school policies unless it is underpinned by a "Whole Wales Policy". Standardising the approach across Wales towards all children with dyslexia, and other co-morbid conditions, in their schools will lead to a more effective and cost efficient provision of support. This can only be facilitated by the coming together of all twenty-two local education authorities, working together to share their good practice, and considering the condition of dyslexia in the light of the most recent research and practice developments.

Such an initiative could be led by the education department of the National Assembly for Wales, with the aim of developing a policy in Wales that, whilst not imposed upon the authorities, could be agreed between them, and efforts made to implement this across the country. It can be argued that it is not acceptable that children in one part, of what is a relatively small nation, can be diagnosed as having special educational

needs and in another area, only a few miles away, they are not. It is not equitable that one child, in a particular area of the country, is receiving support to deal with their learning difficulties or differences, whilst a child a few miles away is not. This practice breaches the ideals of equality of opportunity, anti-discrimination and anti-bias practices advocated consistently by the Welsh Assembly.

“The Committee on Equality of Opportunity is required to make sure that the Assembly has effective arrangements to promote the principle of equality of opportunity for all people in the exercise of its functions and the conduct of its business. The Committee has a strong interest in seeing that a dialogue with groups representing minority and disadvantaged interests takes place at all levels in the Assembly. In order to achieve this, the Equal Opportunities Commission, the Commission for Racial Equality and the Disability Rights Commission have standing invitations to attend meetings of the committee as advisors.”

(www.wales.gov.uk accessed 10.11.05).

The natural consequence of this inequality is that a child cannot be moved within Wales, and still be guaranteed to be in receipt of the support that they need. This then has a potential knock on effect for parental choice, and mobility of employment throughout Wales.

By coming together, for example, around the table, in an “All Wales Forum”, it may be possible for local education authorities to provide a clear, written set of guidelines for teachers and schools in Wales to follow, placing the needs of children at its heart. This open and formative approach could encourage communication between all twenty-two authorities, a collaboration to encourage development of a common philosophy and methodology with a sharing of developmental costs. Collaborative working across organisational boundaries can result in the ability to tackle formally *apparently* insurmountable issues, but to do this, formal structures and procedures need to be established to support the conduct of activities, both within and between organisations, to deliver joined-up solutions. There will, however, need to be an acknowledgement of the differences between the local authorities and a sharing of information openly. Such joint action and exchange of information would seem likely

to support efficient conduct of business generally and communication will be the key to achieving these objectives. The commitment to joined-up government was set out in the “Modernising Government” White Paper (1999), which described the goal of integration as:

“Policies and programmes, local and national, tackle the issues facing society.....in a joined up way, regardless of the organisational structure of the government”

(www.ogc.gov.uk accessed 11.11.05)

In 2001, the All Wales Basic Skills Strategy was launched by Jane Davidson, the Minister for Life Long Learning. This strategy not only gave a clear direction for improving basic skills across Wales but also provided funding to support the implementation of those strategies. The inclusion of strategies to support children with dyslexia across Wales could be one way of bringing local education authorities together to ensure a focused approach that not only incorporates national initiatives, but also allows for the continuation and development of successful local initiatives, including joint initiatives between the independent and voluntary sector. If such a national strategy is to be successful with clearly defined, mutually valued and shared goals, then careful strategic planning needs to be in operation with effective targeting and goal setting and clear and decisive leadership to maintain and hold together the initiative and achieve a shared responsibility. The Welsh Assembly Government could, for example, set targets for all schools in Wales to ensure that an effective early year’s screening programme, involving criteria beyond that of reading alone, (such as physical, social and emotional criteria), is implemented in every school in Wales, in both English and Welsh. This would help to identify children in their early years that may be at risk of dyslexia. This would also help to identify children who are ‘at risk’ rather than having to wait for a deficit to occur, and ensure that appropriate intervention is in place at the earliest possible opportunity. This would require a quality monitoring system to track these ‘at risk’ children, no matter where in Wales they may go, to ensure that the appropriate, and individually adjusted intervention remains in place, possibly through an Individualised Learning Plan, to allow that child to fulfil their potential and access the curriculum, in English or in Welsh. It is clear in the research that it is common practice to cling to the criterion of underachievement

and a discrepancy model, and settings are less likely to address a child's overall developmental problems until they are old enough to fail a reading test.

8.1.2. Parent Partnerships

Parents could also be subjects for careful targeting, to ensure that true partnerships with parents are established in every school in Wales. The importance of the involvement of parents in the development of children's literacy skills is an accepted factor in educational research, (Topping and Wolfendale, 1985), and is highlighted in the new White Paper, 'High Standards, Better Schools for All — More choice for Parents and Pupils' (2005). If screening and intervention are to be effective, then parents must be seen as an important part of the whole process of corrective intervention. Yet this research has demonstrated that the involvement of parents in the identification and remediation process is not always welcomed in schools and local education authorities in Wales, despite the requirement for parent partnerships promulgated in the Code of Practice in Wales (2002). Once again close collaboration between authorities could assist with the sharing of the good practice, that is evident in some authorities, and could encourage new initiatives and new thinking to further 'tap into' this much under used resource of parent partnerships.

"While much can be achieved by the class teacher alone, much more can be gained when the local authority, school management, teaching and ancillary staff are working with parents to meet the needs of all children."

(Crombie, 2002, in Reid and Wearmouth eds., 2002, p.231)

One way to encourage parents to work with the school is to ensure that the school 'listens' to their concerns and takes swift action to assess their children in the light of the 'evidence' presented by the parent, carer or guardian. This listening process needs to continue and to become a dialogue between home and school that respects the knowledge, expertise and genuine concern of each side of the partnership. Such a joint venture will recognise the talents available within the partnership. Angry and frustrated parents are unlikely to be willing to work with an authority that they perceive of as obstructive and unresponsive, but if they work well together, they will achieve a shared responsibility to the benefit of their children.

8.1.3. Training

This study has been a long journey for the writer and no doubt also for the reader, and possibly opens up more questions than produces answers. Many inconsistencies remain in research in this area; this is despite the researchers attempt to simplify a most complex area of study. However carefully the reader has been guided through the research material and it's implications, there still remains a chaotic jumble of research on the subject of dyslexia, as was seen in Chapter Two in the literature review, and any reader will need to weave their way through this before fully appreciating the nuances and their implications for the child or adult who is dyslexic.

“Among members of the general public there are several myths and misconceptions about dyslexia, namely that dyslexics are brighter than ordinary people, that they are especially gifted, that they are especially anti-social, that there is at least ‘one in every classroom’, and that although there is a ‘gene for dyslexia’, it’s adverse effects can be dispelled by a course of literacy teaching which addresses their needs. Scientific support for these beliefs is lacking.”

(Rice and Brooks, 2004, p.87)

It certainly appears that dyslexia is not one thing, but is probably a combination of difficulties with a variety of causes strung along a continuum of severity.

It is clear, from this research that this conceptual confusion is prevalent across Wales. Some staff are unable, or unwilling to understand the range of difficulties that are experienced by children who are diagnosed with dyslexia in their schools or classes. This lack of knowledge, or lack of understanding, can only be ameliorated by an increase in the education and training received by those staff, without this informed learning to help staff to negotiate the maze of data staff might be influenced by the myths and folklore that exist around this subject area, often upheld by the mass media. This research shows that there is considerable confusion between teachers as to the assessment and intervention needed for children who have dyslexic tendencies, and this perhaps reflects either a lack of training for teachers in their initial teacher training programmes, or poorly taught vocational programmes in their initial or

continuing teacher training. If teachers are not initially trained to be aware of the possibility of children with dyslexia in their classrooms or that traditional means of assessment are not appropriate for them, then it is not surprising that the dyslexia 'myths' continue to abound. If this is the case then perhaps the knowledge of the teacher trainers within this field also needs to come into focus, to ensure that the educators of teachers are fully up to date with recent research in the field, and completely understand the implications of ignoring that research. Newly qualified teachers equipped with the latest knowledge within the subject, will be aware of the fluctuating and incomplete understanding that even "experts" in the field have of the definition, aetiology and management of dyslexia. These teachers will possibly be more open to new research, and alert to the importance of keeping themselves abreast of innovative lines of investigation, that could impact upon their practice within the classroom. These teachers will also understand that working with children with dyslexic tendencies is not the sole preserve of the special educational needs co-ordinator (SENCO) within a school, but that every teacher and classroom assistant who comes into contact with the child shares the accountability for detection and support, thereby allowing all children within their care to fulfil their potential.

The teaching of literacy skills to *all* children must be the fundamental role of every teacher in our schools, no matter what their specialist subject roles or the age of the child that they are teaching. The implications of children leaving school without this vital skill both to the individual child, and to society as a whole, are so immense that all teachers must be trained to identify and assist any child who is finding reading and related skills difficult. Without this, the whole concept of inclusion becomes worthless, as no child can access a curriculum without the ability to read fluently, nor enter our modern society. Such is its importance that *every* teacher should be trained and prepared to support children, within their groups, who do not yet read sufficiently well to access the programme of study that the teacher is attempting to teach them. This may mean adapting their teaching styles or their teaching equipment, to encourage dyslexic learners to understand that they too can succeed. It is important to see meeting the needs of the children with dyslexia, as the responsibility of the whole school, and not just of the one classroom teacher — a "whole school perspective".

“The initial challenge is to translate discrete classroom based good practice into the whole school good practice so that, as dyslexic learners move through the school and through the timetable, they can rely on an informed and empathic response from all contact teachers at all times and in all lessons”

(MacKay, 2005, p.207)

Only when all teachers are suitably trained and have sufficient understanding within the field, will the subject of dyslexia receive the recognition that it deserves within a school. Only when the issues surrounding dyslexia are appreciated will children receive the high quality of education and inclusive learning that they need to prepare them for the outside world. These children need to be taught the skills that they require to cope with a condition that they are going to struggle with for the rest of their lives, and to be given the strategies to overcome the difficulties that could prevent them from achieving their full potential.

MacKay (2005), in his support of the Dyslexia Friendly Schools Policy, advocates having a trained teacher in every school.

“The ideal situation is a trained teacher or teacher in training in every school”

(MacKay, 2005, p.211)

However the author believes that this is not a tenable position, and for the prospect of a “whole school” initiative to work, there needs to be a shift within the whole profession to the training needs of all staff, to ensure that every member of staff who comes into contact with the children are trained to be aware of the possibility of specific learning difficulties and dyslexia. This ambitious ideal can only be achieved through initial training within the colleges and universities, and a financial commitment from the local education authorities and the Welsh Assembly Government to professional development and training within every school in Wales.

Training needs should not be limited to the training of teachers, but extended to all those who are involved in the teaching, education and care of the children with dyslexia. Learning support assistants, nursery nurses and classroom assistants, all need to be trained to recognise the possible signs of dyslexic tendencies in the

children within their care. At the time of writing, this does not occur, and the awarding bodies of CACHE, BTEC and City and Guilds, who organise the vocational training of those employed in this capacity, do not include the recognition and support of children with dyslexia within their initial vocational training courses, at either level two or level three of National Vocational Awards (NVQ) or college based Vocational Awards. Given the increased role of the classroom assistant within the school, and the possible advent of Higher Level Teaching Assistants in Wales, and the increasing numbers of degree level teaching assistants and advanced practitioners, this needs to be addressed urgently by the awarding bodies. To provide a whole school ethos of support for these children, training needs to extend outside the immediate classroom, to the mid-day supervisors, caretakers and even governors of the school, which extends beyond an empathetic approach and passive acceptance, to active and practical experiences that touch the every day lives of the children, encouraging them to believe in themselves and to take on the new challenges that they meet.

Moving beyond initial teacher training to the development of existing staff within a school, the first focus must be to identify the training needs of staff, in relation to dyslexia, then to target the development of the curriculum and teaching styles to match the needs of all children rather than the other way around. Both time and money needs to be made available to ensure that these training needs are then met by the authority. The inclusion statement within the National Curriculum (2001) and the Special Needs Code of Practice in Wales (2002) both highlight the responsibility that the teacher has to adapt the curriculum to the needs of their pupils.

“All schools will through their cycle of observation, assessment, planning and review make provision for increased curriculum differentiation, curricular adaptations, and pastoral and disciplinary procedures dependent on the individual child’s strengths and weaknesses. A variety of approaches should be employed to maximise the achievements of all pupils. These kinds of arrangements apply to all children and are not a part of special education provision”

(National Assembly for Wales, 2002, p.46, para. 5:17)

“For pupils whose attainments fall significantly below the expected levels at a particular key stage, a much greater degree of differentiation will be necessary. In these circumstances, teachers will need to use the content of the programmes of study as a resource or to provide a context, in planning learning appropriate to the age and requirements of their pupils”

(National Curriculum Wales, 2000)

It is difficult in an age of targets for examination success, and league tables of achievement to assume that this does not have an effect upon how teachers teach, and for them to ‘juggle’ the needs of the establishment and the needs of the individual children within their care. The spirit of inclusion, however, requires them to do just that, to ensure equality of opportunity between the children in the school or the authority or even across Wales.

“There is nothing so unfair as the equal treatment of unequal children”

(Thomas Jefferson, First inaugural address, 4th March, 1801)

8.1.4. Financial Implications

The financial implications for Wales of implementing a cohesive policy cannot be ignored, but are evident in both ends of the scale, in terms of expenditure but also of savings, and needs to be viewed as a vital investment for young people and society in Wales. In the previous sections, much has been made of the need for effective targeting, but with that targeting, must come measurable outcomes and a greater degree of accountability. If there is to be increased investment into the management of dyslexia in Wales, both financial and in an increase in the workforce and their training, then the people of Wales must be able to see a return for their outlay. The Welsh Assembly Government must ensure that there are sufficient and appropriate resources available, and thereby ensure value for money. However, if we accept that adults with dyslexia are five times more likely to be unemployed than those without (www.literacytrust.org.uk), and that there is some degree of over representation in prisons and young offenders institutions of dyslexic adults (BDA, 2004), and that dyslexic adults are more likely to have children who are themselves dyslexic (Fisher and DeFries, 2002), then it is reasonable to accept that there could be a sound economic argument for investing financial and manpower resources into the

identification, intervention and remediation of dyslexia at an early age. Increased resources at the start of a child's life could be offset by the benefits gained as they approach adulthood, with fewer young people claiming unemployment benefits, and fewer dyslexic young people finding themselves in the youth courts, requiring the hugely expensive services of the youth offending teams or requiring custodial sentences and prison services. The Dyslexia Institute (2004) estimated that the economy lost £2.75 million a day because children and adults with dyslexia were not given the help that they needed to fulfil their potential. This cost could be substantially reduced if these individuals were identified at an early age and given appropriate support. This research, however, demonstrates that children under the age of seven years and eleven months are less likely to be referred than children over that age, and that children under the age of five years are extremely unlikely to be referred for dyslexia. The Dyslexia Institute (2004) also estimates that the cost of the provision for children with undiagnosed dyslexia who are excluded from school in England and Wales could be as much as £9,900 a year.

To ensure appropriate training for all teachers in Wales through continuing professional development, and to encourage involvement from nursery nurses and classroom assistants, would involve a funding commitment from a central source, the most likely source in schools in Wales, would be the Welsh Assembly Government. This finance needs to be a ring-fenced investment to the local education authorities, to ensure that appropriately skilled staff and resources are available to all children throughout Wales. The Dyslexia Institute (2004) estimates that the cost to the taxpayer to train one teacher in every primary school in England and Wales to support children with dyslexia would be £36 million. This is a fraction of the cost to the treasury of the long-term problems for those children in later life, not to mention the wasted potential, missed tax revenues and valuable lost contributions to society.

Research and development of appropriate screening materials, in both English and Welsh languages will require time, expertise, financial commitment and a considerable sharing of existing good practice between the twenty two authorities and any other organisations, both statutory or voluntary, who feel that they have expertise to contribute. However, having the right tools to undertake a job is not effective if they are not in use, and this research shows that the Welsh language materials

produced by the Welsh Dyslexia Project, for example, are under used and under publicised. Greater awareness of the resources available could also be part of a comprehensive training programme and might encourage a greater uptake of the materials to match the learning needs of the children in the schools. Such an uptake would demonstrate a clear response to need and an inclusive approach at the heart of every school.

Screening for all children in their early years is bound to reveal a higher incidence of dyslexia, or at the very least, those who are apparently at risk for dyslexic tendencies, but screening by itself is of no value unless accompanied by remediation and support. If all these children are to receive the attention and consideration that they need to access the curriculum on an equal basis with mainstream children, then precious and limited resources would need to be carefully targeted and research undertaken into the best use of these resources to ensure that every child in Wales is fairly and appropriately treated. The use of statements, under the terms of the 1993 Education Act, ensure that children receive that support, and have the legislative framework to insist that the support is in place, this may be a more effective approach than the present system, which allows each authority to allocate a variety of treatment from one child to another, from one school to another and indeed, from one authority to another. Such statements of need would follow the child throughout his/her school career and inform the practice.

*“At present the **statementing** process is the main arena for struggle between authorities reluctant to provide the quite inexpensive education dyslexics for the most part require. Furthermore suspicions are widespread that resources tend to go to those who exert the most pressure”*

(Turner, 1997, p.314)

8.1.5. Literacy in Wales

It is apparent from this research that insufficient consideration is taken in Wales of children who are dyslexic and for whom Welsh is their first language. Teachers and local authorities did not appear to see this as a priority. As has been discussed in Chapter Five, a greater awareness programme, and better advertising, needs to be in place to ensure that every teacher in Wales has access to the Welsh language

screening programmes which already exist, and that the shortage of educational psychologists who are capable of assessing children through the medium of Welsh, also needs to be resolved. Encouraging Welsh speakers to train as educational psychologists and then to remain in Wales once they have been trained needs careful consideration and open debate at government level. Children educated in Welsh medium schools with Welsh as their first language, find it extremely difficult to access higher education in Welsh, once they have left schools or further education. No university offers psychology through the medium of Welsh (UCAS 2005), and only one, the University of Swansea, offers psychology and Welsh as a joint honours degree for 2006 entry, which is approved by the British Psychological Service as offering a graduate basis for registration. For a Welsh first language speaker it must be a daunting prospect to leave school, where all their work has been completed in one language, and then have to complete their higher education in their second language. Greater incentives for prospective educational psychologists need to be offered, to encourage them to train and remain in Wales. The consultation document issued by the Welsh Assembly Government in 2004 concerning educational psychologists in Wales suggested that the ratio of educational psychologists per child recommended by the Warnock Report (1979), of 1:5000 children was no longer appropriate, and they recommended a move to 1:4000 children, particularly in view of the rural nature of the authorities, and the local authority strategic role.

“Evidence of the initial report indicates that there is a shortfall of educational psychologists who are able and willing to work through the medium of Welsh. We propose that a small number of training places are ring-fenced for applicants who are fluent Welsh speakers.”

(Department for Training and Education, 2004, p.11, 4.1.2.)

8.1.6. Policy and Prevalence

Considering the short time scale, policies to support children with dyslexia have progressed immeasurably in the last twenty years. Prior to the 1990's dyslexia was not recognised by the political and educational establishment, and many educational psychologists were openly sceptical. Since then, the 1994 Education Act “legitimised” the issue of specific learning difficulties and in particular dyslexia. The

2002 Special Educational Needs Code of Practice for Wales has provided an important framework and further highlighted the need for children with this condition to receive particular attention to support the condition and suggested how that support might be incorporated into the schools in Wales. According to Nicolson (2004):

“...although the situation regarding dyslexia in UK schools remains far from ideal, exceptional progress has been made. It is fair to say that the situation for a dyslexic child in the UK is one of the most favourable in the world”

(Nicolson, 2004, p.11)

Despite such optimism, it is apparent from this research, that policies in Wales to support children to ensure that they receive a fair and equitable treatment across the principality have some way to go before they can be said to be working well. Whilst the Dyslexia Friendly Schools initiative, launched by MacKay in the early 1990's (MacKay, 2001) in Flintshire, carries with it some excellent ideals for integrating children with dyslexia into mainstream classrooms, with suitably qualified staff and leadership, appropriate resources of time and management, and effective partnerships with parents and pupils, it is clear from this research that within the schools in Wales this policy is not working in the way in which it was intended. Despite this, many of the schools, within the research sample, did claim that they were working within a Dyslexia Friendly framework. This comforting phraseology, already discussed in Chapter Five, could be working against the children with dyslexia in Wales by preventing them accessing the intervention that they require, as staff console themselves with the idea that by being “friendly” and empathetic to the children, that they are doing the best that they can to enable their pupils to fulfil their potential.

Children in state education in Wales have traditionally been taught in groups and classes, which makes it extremely difficult for teachers and schools to cater for the individual needs of the children, their learning differences and difficulties. In order to be responsive to these needs policies of exclusion (children in special needs schools, separate from the mainstream), integration (children in mainstream schools taught alongside mainstream), and inclusion (children taught with mainstream) have all been put forward.

Responding to Children's Diverse Needs

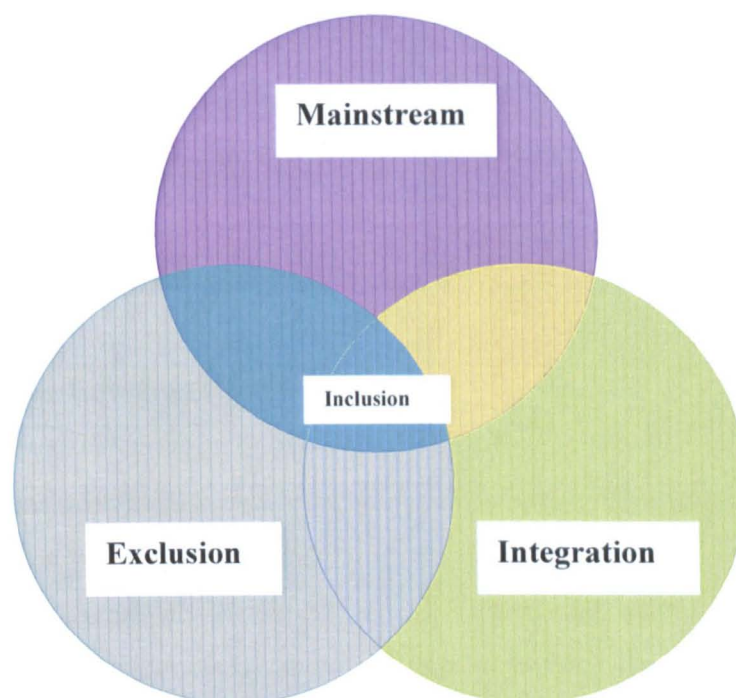


Fig 8.1.

Thus, the development of the policy of individual educational plans (IEPs) to recognise and address the needs of the child that have been in use since the 1994 Code of Practice (DfES, 1994) and revised in the 2002 Special Needs Code of Practice in Wales. Whilst individual education plans are a good way of sharing information between professionals, parents and the child, there is evidence in this research that there is a lack of consultation with parents and children. If this is the case, the individual education plan becomes little more than a time consuming paper exercise, and a hugely wasted opportunity to respond to the needs of individual children.

It might be questioned whether it is a practical suggestion for every school to have a policy for every eventuality, and if they do have a policy for dyslexia should they also have one for attention deficit disorder, dyspraxia, autism etc, or is one which addresses all specific learning difficulties enough? Considering the prevalence of dyslexia in the population, as suggested in Chapter 2 of this research, perhaps there is a case for suggesting that this condition does have a policy formulated to deal specifically with the needs of children with dyslexia. However, any policy decided upon must be a working document that is used regularly, reviewed, and revised.

8.2. Recommendations and Implications

8.2.1. Proposals for future policy and practice

It does appear clear that despite considerable major research into dyslexia and specific learning difficulties by respected research institutions such as the Bangor Dyslexia Unit, the Dyslexia Institute, British Dyslexia Association, Hornsby International Dyslexia Centre and many more, many of the recommendations of national and international research have not been implemented. The plethora of evidence concerning dyslexia therefore appears futile, unless findings and recommendations are utilised in the public domain to improve the facilities and conditions for children who exhibit dyslexia or dyslexic tendencies. This has major implications in Wales, not only for children's health and education, but also in relation to long-term life chances of children and adolescents, and the determination of the future social fabric of the community in Wales.

The later sections of Chapter Six in this research raised the concerns of some interviewees pertaining to issues such as communication and lack of resources. This raises the desirability for improved communication at every level, including a multi-professional approach to service organisation and co-ordination at national level, local authority level and school level to ensure a continuity of the facilities and resources offered. The interviewees identified the need for increased resources to meet the needs of the children in their care; this will require an increase to the financial assets currently being made available to the frontline staff working with these children, to research and to policy implementation. At national and local levels the author

identifies the need for effective and efficient assessment and remediation and suggests the use of a tripartite model, which concentrates upon the three aspects of identification, appraisal and rapid, sustainable support.

The author found that many of the potential participants in this research, in the schools and local authorities, were reluctant to participate and hence to share their professional knowledge and experience in relation to dyslexia, and the environmental and policy factors which could draw attention to the possible difficulties of the children living with this condition. The questionnaire, the interview schedule and the introduction of this study appeared to be generally viewed by the sample with some suspicion; it might be thought that as professionals within the field that they would want to provide evidence that could potentially be for the purpose of implementing positive policy change. The existence of this research could have had an emancipatory effect upon professionals by providing them with a forum to raise their concerns as part of an anonymous group. From those who did take part there were practical demonstrations of liberation such as requests for the findings to be made available to the Welsh Assembly Government and for results to be disseminated to the local education authorities and local government departments. It is possible that following the completion of the research that the feelings of emancipation may be short lived without the introduction of funding to address some of the issues raised. It is hoped, however, that in the case of this research, the liberating effects precipitated by the study are sustained by the recent interest shown, in the results of the research, from the voluntary organisations such as the British Dyslexia Association, Cymru and the Welsh Dyslexia Project, where professional opinion based on experience and local knowledge of priorities is viewed as the key to this process.

The recommendations of this research can be divided into three levels; global, national and local levels each one feeding into and affecting the other.

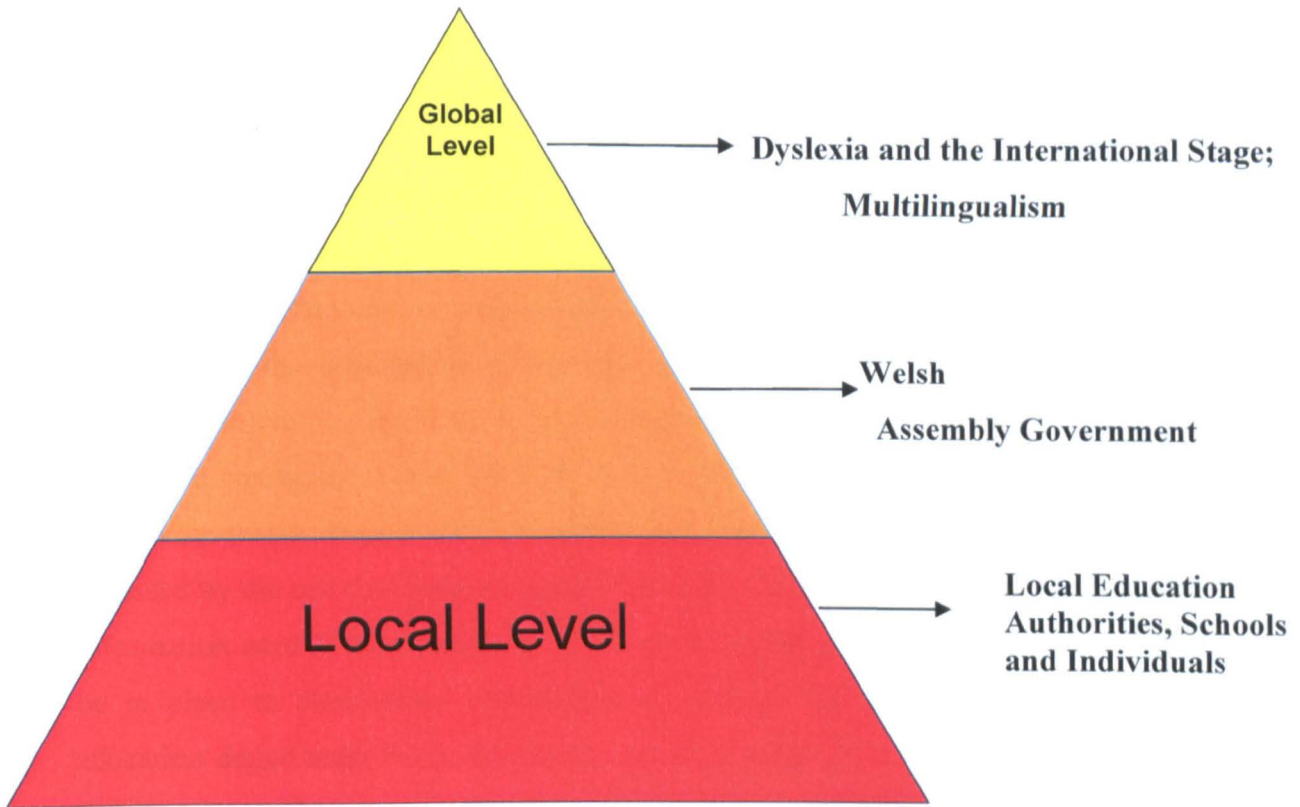


Fig 8.2

8.2.1. a. Global Level

The literary evidence reviewed in Chapter 2, from diverse countries of origin, reveals the issue of dyslexia and multilingualism as one of global concern (Salter and Smythe, eds., 1997; Peer and Reid, 2000). It appears relevant therefore, to consider how information pertaining to dyslexia may be drawn together to enable dissemination worldwide. It is tentatively suggested that an international database may prove useful to provide information on a broad spectrum of topics, such as research into the effective management of dyslexia and theories pertaining to the causes and effects of dyslexia, the aetiology. In addition, an international database may provide useful information on commercial programmes from around the world that have been found successful in remediation and support.

8.2.1. b. National Level

At national level, it is essential for the children with dyslexia in Wales for there to be an “All Wales Forum” bringing together the twenty-two local authorities in discussion for the sharing of good practice. It may, however, be useful to consider the introduction of a resource designed to collate information pertaining to all aspects of specific learning difficulty, and in particular dyslexia in Wales. Such a resource could bring together in one situation, theories relating to causes and effects of dyslexia and Welsh language facilities, providing details of programmes that have been found to be successful in the remediation of dyslexia in Wales. To enable such a resource to remain effective it would be vital to monitor research into dyslexia and other associated conditions within the field of specific learning difficulties, in Wales, and around the world. This would then remain as a bank of up to date information to be accessed by the relevant statutory bodies and other interested parties to ensure that all information used in the principality was current and accurate. The forum would then be in place to disseminate information to statutory agencies such as health and education departments from the twenty-two local authorities concerning risk factors for dyslexia and its effects. There would be an opportunity for consultation at all levels, to consider views, particularly front line staff involved at all stages of decision-making.

A national resource such as this could be used to publicise the material to the various mass media, ensuring a population that is more aware of the condition and its related co-morbid conditions. This in turn could provide relevant information pertaining to dyslexia in Wales to the international database described in the previous section.

Such a resource could provide an annual report on the incidence and prevalence of specific learning difficulties and dyslexia in Wales, and thereby support the Welsh Assembly and the suggested “All Wales Forum” with their policy-making decisions. This type of resource could ensure that Wales leads the United Kingdom in their management and support for this condition and range of associated conditions, by holding regular joint reviews of working and achievements.

8.2.1. c. Local level

The literary evidence and findings of this study reveal that proactive work in three specific areas of education may prove useful in identifying and remediating dyslexia in Wales. Firstly assessment in the child's most familiar language at an early age to identify the potential risk of the child with dyslexia failing in school. Secondly, the levels of intervention and remediation focusing upon the barriers to learning that the child may experience. By identifying the difficulty there is some hope of assessing how this can be tackled.

It is essential, especially in the early years, that learning is made as meaningful and as child friendly as possible for the learner and for that reason we need to consider a wider range of factors than the 'within-child' factors".

(Crombie, Knight and Reid, 2004, p.204)

Finally, there is the need to monitor closely the individual child and the policies to support that child, to ensure that they remain appropriate in the light of new and ongoing research developments. Monitoring will also be required to support teachers in schools to ensure that wherever in Wales a child may be they can be assured of the support, teaching and financial resources that will enable them to access the curriculum, and to fulfil their potential.

8.2.2. Suggestions for Further Research

The most urgent area for further research and explanation is the concept and definition of developmental dyslexia itself. Until researchers can arrive at a definitive view of what dyslexia actually is, and how it can be assessed accurately, it will always suffer from a "low status", and because it is a largely unseen difficulty, it will not attract the same attention, or the same financial input, as some more observable disabilities. Those working with children with dyslexia need to have some definitive means of distinguishing between children who are dimensionally different from those who are poor readers. Resources are just not available at the time of writing to distinguish between these two categories accurately. Until Wales can agree upon a mutually

accepted definition, it will be difficult to move forward either within policy formulation or practice within the classroom. Inconsistent definitions are largely to blame for the recent examples of scepticism, and disbelief exhibited in the recent Channel Four television programme “Dyslexia the Myth” (September 2005), and in the provocatively titled conference, “Death of Dyslexia”, held in London (21.10.05), as reported by Mansell (Times Educational Supplement, October 28th 2005), in which Professor Julian Elliott from Durham University cast doubt upon dyslexia being a “*neurological developmental disorder with a genetic basis*” (Snowling in Mansell, Times Educational Supplement 28.10.05).

Another area of suggested research would be an evaluative study of the intervention programmes. At the time of writing there appears to be very little research to compare the different programmes of intervention for their effectiveness. Whilst there are many ethical problems surrounding such research, for example the existence of control groups, or “no treatment” groups, it is none the less important to have research based evidence into instructional programmes that reflect a broad definition of the literate child. It may be because specific learning difficulties are such a diverse spectrum of conditions that one definitive method will not be possible to pin point, but if it were possible to identify certain characteristics of good teaching for children with dyslexic tendencies, then training for contact staff could be clearly focused and directed.

Finally, an exploration needs to be conducted into what defines a supportive classroom environment, which will contribute to a positive literacy experience for a child relating the emotional environment to the physical environment.

8.3. Getting it Right; The Summary

This research thesis has investigated the issues of policy formulation and prevalence of dyslexia in Wales in a variety of contexts at local authority and school level. The research has also explored policy formulation, and its role in offering protective reassurance to parents and children with dyslexia. The findings of the study, and a substantive literature review, revealed that despite a plethora of evidence, very little work was being done in Wales to resolve the problem of ensuring an equality of

access to appropriate and effective remediation for the children with dyslexia in Wales, through best practice and visible joined-up policy. The author recommends that this issue be addressed in view of the substantive research, relating to the serious long-term effects of dyslexia and dyslexic tendencies, on the child and adult health, education and society as a whole.

The literary evidence shows that the previous recommendations of research such as Fawcett (2002) and Thomson (2002), pertaining to dyslexia, have not been implemented. In order to promote the uptake of research funding in this area there is a need to promote the uptake of research findings. There is a necessity to identify the potential barriers to implementing and solving them. The relatively recent changes to government reform and the introduction of the Welsh Assembly Government provides an ideal opportunity to bring about change, by the identification of the educational needs of a marginalized group, such as children with dyslexia and other specific learning difficulties. There is an opportunity in Wales to develop vision and joint values to create an agreed and shared common agenda, which could lead the way in the management of dyslexia and children across the United Kingdom, and become a beacon of success for other areas to emulate. There is, however, an urgent need to improve the public and professional understanding of the links between health, education and economic policy. The widening educational inequalities between education authorities, in their turn breed social problems. The evidence of this research also indicates that in addressing the issue of dyslexia, we also improve our children's health and invest in their future wellbeing and prosperity as adults.

In conclusion, research into dyslexia has indeed taken great strides in the last twenty years and it was evident from the Third International Conference of the Multi-Lingual Dyslexia Association held in Cyprus (2005) that passions run high in this area of investigation and that research is extensive across the world. Harnessing this research and bringing it together will be important to our overall understanding of the condition and so much more will be achieved by a co-ordinated approach to the research and co-operation in policy formulation. For a small principality, such as Wales, the opportunity to learn from this worldwide research will be imperative, but the individuality of Wales and its unique culture and bilingual traditions must not be

lost or forgotten; only then will the researchers in the field be able to make a difference to the individual children with dyslexia in Wales.

*“Come to me, O ye children!
and whisper in my ear
what the birds and winds are singing
in your sunny atmosphere.
For what are all our continuings
and the wisdom of our books,
when compared with your caresses,
and the gladness of your looks?
Ye are better than the ballads
that were ever sung or said;
for ye are living poems,
and all the rest are dead.”*

(Longfellow H W., [1807-1882] v. 7-10)

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Appendix One

Serial No:

Dyslexia Questionnaire

Please answer as many questions as you feel apply; any questions not applicable please mark N/A

1. Approximately how many referrals for dyslexia do you receive in a year?

2. Approximately what percentage of these referrals comes from:

- LEA %
- School %
- Parents %
- Other %

3. Approximately what percentage of children referred for reading and learning difficulties are diagnosed to be dyslexic on the basis of your assessment?

%

4. What definition of the term dyslexia do you use when making your diagnosis?

.....

.....

.....

.....

.....

(Please continue overleaf if you need to)

5. What in your opinion is a 'full' assessment for dyslexia?

.....
.....
.....
.....

(Please continue overleaf if necessary)

6. How old are the majority of children who are referred to you to test for dyslexia: (please tick the box)

Under 5 years 0 months	<input type="checkbox"/>
5years -7years 11months	<input type="checkbox"/>
8years 11months -11years	<input type="checkbox"/>
12years -15years 11months	<input type="checkbox"/>
16years +	<input type="checkbox"/>

7. Approximately how long do children have to wait between referral and assessment?

Years Months Weeks

8. Approximately how frequently does the decision of the educational psychologist go to appeal for granting statements?

%

9. Please give a brief description of your testing process.

.....
.....
.....
.....

(Please continue overleaf if necessary)

10. Please tick the tests for dyslexia you use?

- Aston
- DST
- Bangor
- Index
- Other

Please give details.....

11. Does the testing process rely upon the child's ability to read?

Yes, heavily Yes, a little No reliance on reading

12. Does the test assess both verbal reasoning and practical abilities?

Yes No

13. Is allowance is made for children for whom English is not their first language?

Yes No

14. Is any account made for disruptive behaviour, poor self-concept and/or emotional difficulties?

Yes No

15. Are any physiological tests conducted? If so what is their nature?

.....

.....

16. Please tick if you include in your assessments information from the child's:-

- School
- Parents
- Hospital/ GP
- School Doctor
- Child
- Other

17. Please tick if you take a medical/developmental history of the child/child's family? (Please tick)

- Yes/always (more than 80%)
- Yes/frequently (40-79%)
- Yes/sometimes (11-39%)
- Rarely (less than 10%)
- Never

18. What reading test/s do you use? (Please tick)

- Burt Word Reading Test
- Suffolk Reading Scale
- Edinburgh Reading Test
- Word Recognition Test
- Young Group Reading Test
- Schonell Graded Word Reading Test
- Neale Analysis

- Standard Reading Test
- Durrell Analysis of Reading Difficulty
- Salford Sentence Reading Test
- Wide Span Reading Test
- Other

19. What spelling test/s do you use?

20. What writing test/s do you use?

21. Please tick if the assessment carried out in one session?
- 2 sessions
- More than 2 sessions

22. What happens to the report following assessment?

23. Do you make efforts to reduce the child's anxiety before taking the test?
 (Please tick)
 Yes Usually Sometimes Never

24. Do regular reviews of the child's performance/progress take place? (Please tick)
 Yes No

25. How frequently do these reviews take place? (Please tick)
 Bi-Annually Annually Termly Other

26. In your opinion is dyslexia a medical or an educational matter? (Please tick)
 Medical Educational

27. In your opinion can dyslexia be diagnosed accurately? (Please tick)

Yes Usually Sometimes Rarely No

28. In your opinion is it possible to separate dyslexia from other more general reading difficulties? (Please tick)

Yes Usually Sometimes Rarely No

29. How many signs need to be present before you diagnose dyslexia?

.....
.....

30. Do you attach greater significance to some signs than others?

.....
.....
.....

Thank you for the time you have taken to complete this questionnaire.

Hob House,
Hob Lane,
Churton,
Chester.
CH3 6JZ

Date as postmark

Dear Colleague,

I am a teacher and lecturer currently working in a college of further education. I am undertaking a PhD at Chester College, researching the prevalence and policy of dyslexia in Wales. I am hoping, that as a result of my work, the awareness of identification and support of children with dyslexia in Wales can be highlighted.

It is important for this research to ascertain the current practices, and I am therefore asking you, as a concerned professional working in the field, to assist this research by taking some time to complete the enclosed questionnaire. I have enclosed a stamped addressed envelop for your convenience, alternatively this can be faxed to me, on 01829 270 857.

I am happy to answer any queries about the questionnaire or the projected research on that number or e-mail thehayesfamily@supanet.com. Thank you for your time and anticipated co-operation.

Yours faithfully,

Carol A. Hayes

Rhif Cyfresol:

Holiadur Dyslecsia

Atebwch y cwestiynau 'r ydych yn eu ystyried yn berthnasol os gwlwch yn dda. Marciwch unrhyw gwestiynau amherthnasol (A).

1. Tua faint o gyfeiriadau byddwch oherwydd dyslecsia mewn blwyddyn?

2. Tua pa ganran o'r rhain ddaw gan:

AAI %

Ysgol %

Rhieni %

Arall %

3. Tua pa ganran o blant gydag anawsterau darllen a dysgu sy'n cael eu canfod yn ddyslegsig ar sail eich asesiad?

 %

4. Pa ddiffynaid o'r term dyslegsig ydych chi'n ei ddefnyddio pan yn gwneud?

.....

.....

.....

.....

.....

(Trosodd os oes angen)

5. Beth ydy asesiad “llawn” ar gyfer dyslegia yn eich barn chwi?

.....
.....
.....
.....

(Trosodd os oes angen)

6. Beth ydy oedran y mwyafrif o blant sy'n cael eu cyfeirio i chwi ar gyfer prawf dyslegia? (Ticiwch y blwch os gwelwch yn dda).

0 dan 5 ml.0 mis	<input type="checkbox"/>
5 ml.- 7 ml. 11 mis	<input type="checkbox"/>
8 ml. 11 mis – 11 ml.	<input type="checkbox"/>
12 ml. – 15 ml. 11 mis	<input type="checkbox"/>
16 ml. +	<input type="checkbox"/>

7. Tua faint rhaid i blentyn aros rhwng yr atgyfeiriad a'r asesiad?

<input type="text"/>	Bl.	<input type="text"/>	Mis	<input type="text"/>	Wythnosau
----------------------	-----	----------------------	-----	----------------------	-----------

8. Tua pa mor aml bydd penderfyniad y seicolegydd addysgol yn mynd i apêl wrth drefnu datganiadau?

%

9. Rhowch ddisgrifiad cryno o'ch proses profi os gwelwch yn dda.

.....
.....
.....
.....
.....

(Trosodd os oes angen)

10. Ticiwch y blwch os ydych yn defnyddio'r prawf isod os gwellwch yn dda?

- Aston
- DST
- Bangor
- Index
- Arall

Rhowch fanylion os gwelwch yn dda.....

11. Ydy'r broses profi yn dibynnu ar allu darllen y plentyn?

Ydy, llawer Ydy, ychydig Nac ydy

12. Ydy'r prawf yn asesu rhesymu llafar a gallu ymarferol?

Ydy Nac ydy

13. Oes unrhyw ystyriaeth o Saesneg fel ail-iaith y plentyn yn cael ei wneud ble mae'n berthnasol?

Ydy Nac oes

14. Ydy ymddygiad trafferthus, hunaniaeth isel neu anawsterau emosiynol eraill yn cael eu cymryd i ystyriaeth?

Ydynt Nac ydynt

15. Oes profion ffisiolegol yn cael eu gwneud? Os oes, beth ydy eu natur?

.....
.....

16. Ticiwch y blychau perthnasol os ydych yn cynnwys gwybodaeth gan y canlynol yn eich asesiad:-

Ysgol
Rhieni

Ysbyty/ MT

Meddyg ysgol

Plentyn

Arall

17. Ydych chi'n gwneud hanes meddygol/datblygiadol o'r plentyn/teulu'r plentyn? (Ticiwch os gwelwch yn dda)

Ydw/pob amser (mwy na 80%)

Ydw/yn aml (40-79%)

Ydw/weithiau (11-39%)

Pur anaml (llai na 10%)

Byth

18. Pa brawf/brofion darllen byddwch yn eu defnyddio? (Ticiwch os gwelwch yn dda)

Prawf Darllen Geiriau Burt

Graddfa Darllen Suffolk

Prawf Darllen Caeredin

Prawf Adnabod Geiriau

Prawf Darllen Grwp Young

Prawf Graddedig Schonell

Dadansoddiad Neale

Prawf Darllen Safonol

Dadansoddiad Durrell o Anhawster Darllen

Prawf Darllen Brawddeg Salford

Prawf Darllen Rychwant

Arall

19 Pa brawf/brofion sillafu byddwch yn eu defnyddio?

.....

20. Pa brawf/brofion ysgrifennu byddwch yn eu defnyddio?

.....

21. Ticiwch os bydd yr asesiad yn cael ei wneud mewn un sesiwn?

2 sesiwn?

Mwy na 2 sesiwn?

22. Beth sy'n digwydd i'r adroddiad yn dilyn yr asesiad?

.....

.....

23. Ydych chi'n gwneud ymdrech i leihau pryder y plentyn cyn gwneud y profiad? (Ticiwch os gwelwch yn dda).

Ydw Fel arfer Weithiau Byth

24. Ydy cynnydd y plentyn yn cael ei arolygu'n rheolaidd? (Ticiwch os gwelwch yn dda)

Ydy Nac ydy

25. Pa mor aml mae'r arolygiadau'n digwydd? (Ticiwch os gwelwch yn dda)

Dwywaith y flwyddyn Pob blwyddyn Pob tymor Arall

26. Ydy dyslecsia yn fater meddygol neu yn fater addysgol yn eich barn chwi? (Ticiwch os gwelwch yn dda)

Meddygol Addysgol

27. Ydy'n bosib gwneud diagnosis cywir o ddyslecsia yn eich barn chwi? (Ticiwch os gwelwch yn dda)

Ydy Fel arfer Weithiau Pur anaml Nac ydy

28. Ydy'n bosib gwahanu rhwng dyslecsia ac anawstersu darllen mwy cyffredinol yn eich barn chwi? (Ticiwch os gwelwch yn dda).

Ydy Fel arfer Weithiau Pur anaml Nac ydy

29. Faint o arwyddion rhaid bod ar blentyn cyn i chwi wneud diagnosis o ddyslecsia?

.....
.....

30. Ydych chi'n cyfrif rhai o'r arwyddion yn fwy pwysig nag eraill?

.....
.....
.....

Diolch yn fawr i chwi am gymryd yr amser i gwblhau'r holiadur

(Cyf. RBH 2002)

Ty Hob,
Lôn Hob,
Churton,
Caer.
CH3 6JZ

Dyddiad-marc post

Annwyl Gydweithiwr/wraig,

'R wyn athrawes a darlithydd ac yn gweithio ar hyn o bryd mewn coleg addysg bellach. 'R wyn yngymryd â fy noethuriaeth yng Ngholeg Caer gan wneud ymchwil i gyffredinolrwydd a polisi dyslecsia yng Nghymru. Hyderaf, fel canlyniad i'm gwaith, y bydd ymwybyddiaeth o adnabod acefnogi plant gyda dyslecsia yng Nghymru yn cael ei oleubwyntio.

Mae'n bwysig i'r ymchwil gasglu gwybodaeth am arferiadau presennol felly 'r wyn gofyn i chwi, fel gweithiwr/wraig proffesiynol sy'n ymddiddori yn y maes, gymryd amser i gwblhau'r holiadur. Amgeuaf amlen stampiedig er cyfleuster neu allwch ffacio'r gwybodaeth i mi ar 01829 270 857.

'R wyn barod iawn i ateb unrhyw ymholiadau parthed yr holiadur neu'r ymchwil ar yr un rhif neu allwch ddanfon e-bost i thehayesfamiliuly@supanet.com. Diolch yn fawr i chi o flaen llaw am eich amser a'ch cydweithrediad.

Yn gywir,

Carol Hayes

Appendix 2

Interview Schedule

Local Education Authority:.....

Employment role of interviewee:.....

Number of years employed by the LEA

Gender Male () Female ()

1. Approximately how many children are referred to the local authority each year for dyslexia?

(Probe: - What proportion of LEA children?)

2. Approximately how many of these are statemented for their dyslexia?

Key stage 1/2

Key stage 3/4

(Probe: - Ratio of referrals to statements?)

3. What proportion of children is statemented in the following age groups?

5 years – 7years 11months

8 years – 10years 11months

11 years-13years 11 months

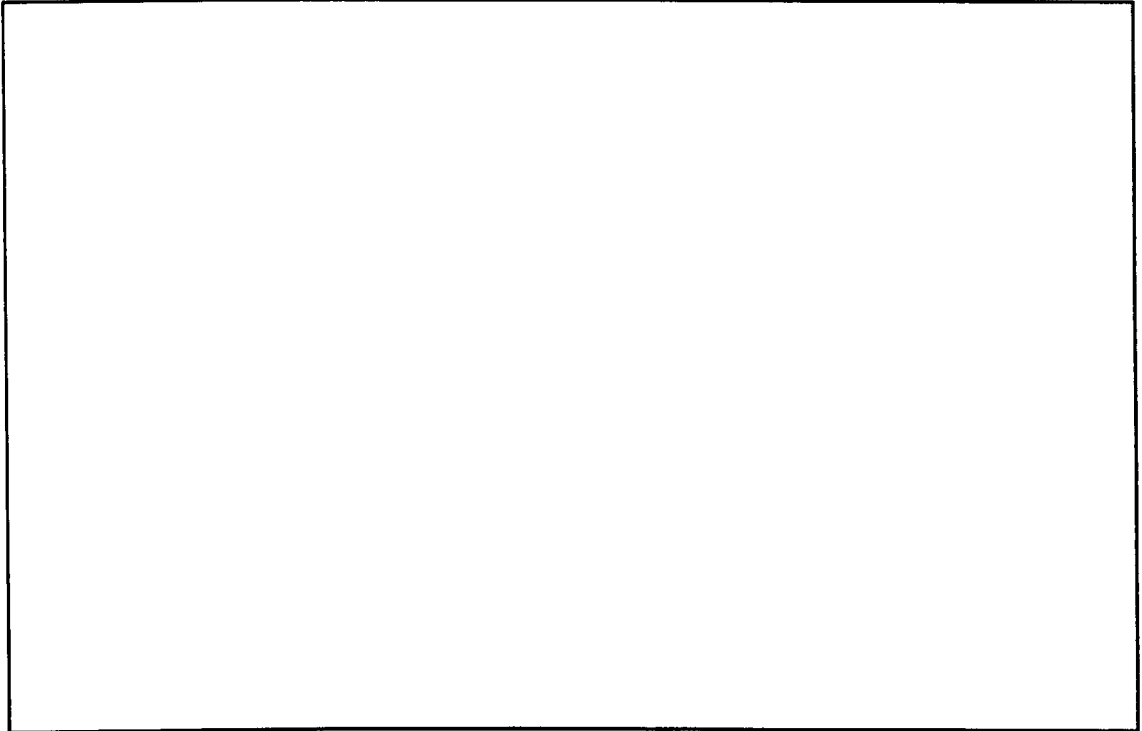
14 years – 15years-11 months

16+

4. Approximately how long do the children wait between referral and statement?

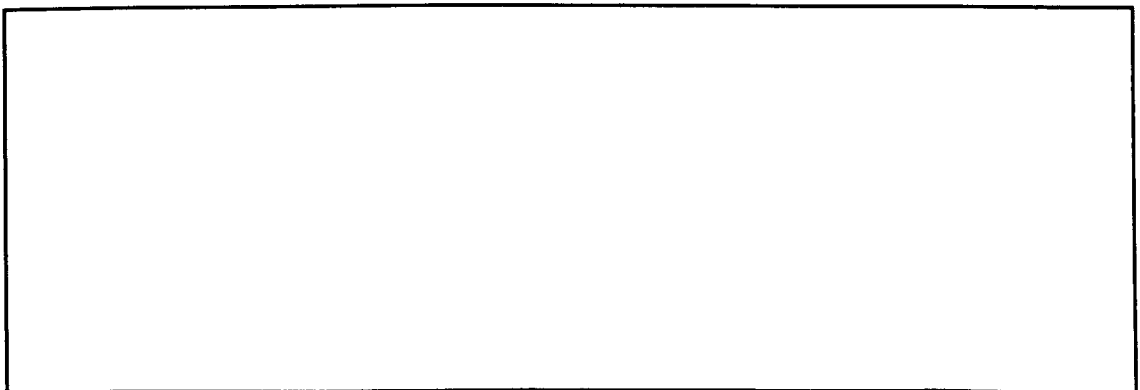
(Probe: - Range and variety of reasons)

5. Are there clear policies in place for dealing with children with dyslexia?



(Probe: What are they?
How are they established?
Are they regularly updated?
By whom?
Have they changed recently?)

6. Are these policies readily available to teachers and to prospective parents?



(Probe: - How are they made available?
Published? Internet? General procedures or special measures?)

8. Does the authority distinguish between Specific Learning Difficulties and dyslexia?

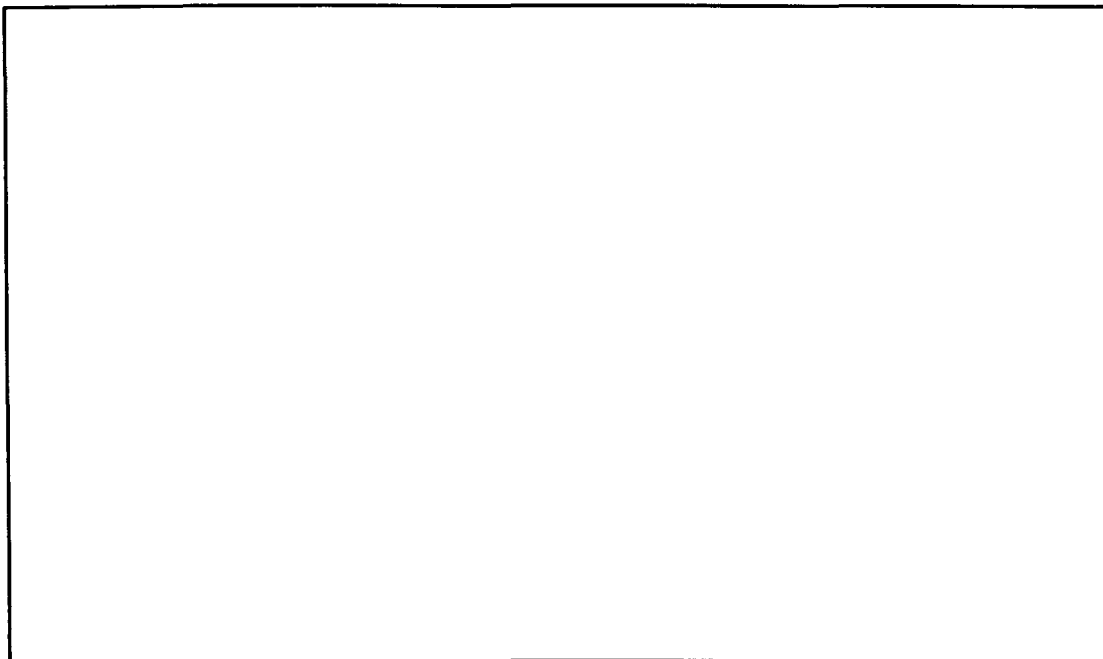
9. Does the authority see dyslexia as a medical matter, educational matter or both?

Medical

Educational

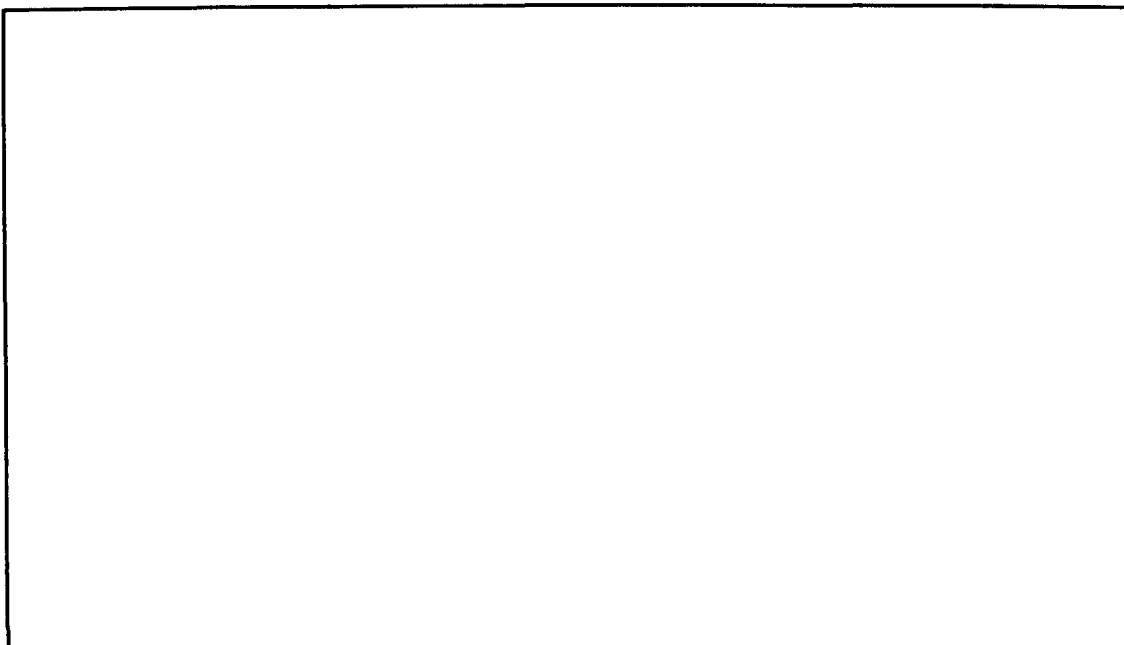
Both

10. How do you encourage “dyslexia friendly” teaching within your authority?



**(Probe: - Teaching methods?
Professional development?
Children taken out of class?
Peripatetic teacher?
Dyslexia Institute?
Monitor Progress?)**

11. What support is available to teachers who have children with dyslexia in their class?



(Probe: - Educational psychologist support?
Training for teachers?)

12. What screening procedures are in place to identify children with dyslexic tendencies?

(Probe: - Screening versus testing?)

Class tests?

Assessment of children at risk?

Reading/ spelling/ intellectual; ability/ I.Q/ NFER reasoning?

13. What allowance is made for children for whom English is not their first language?

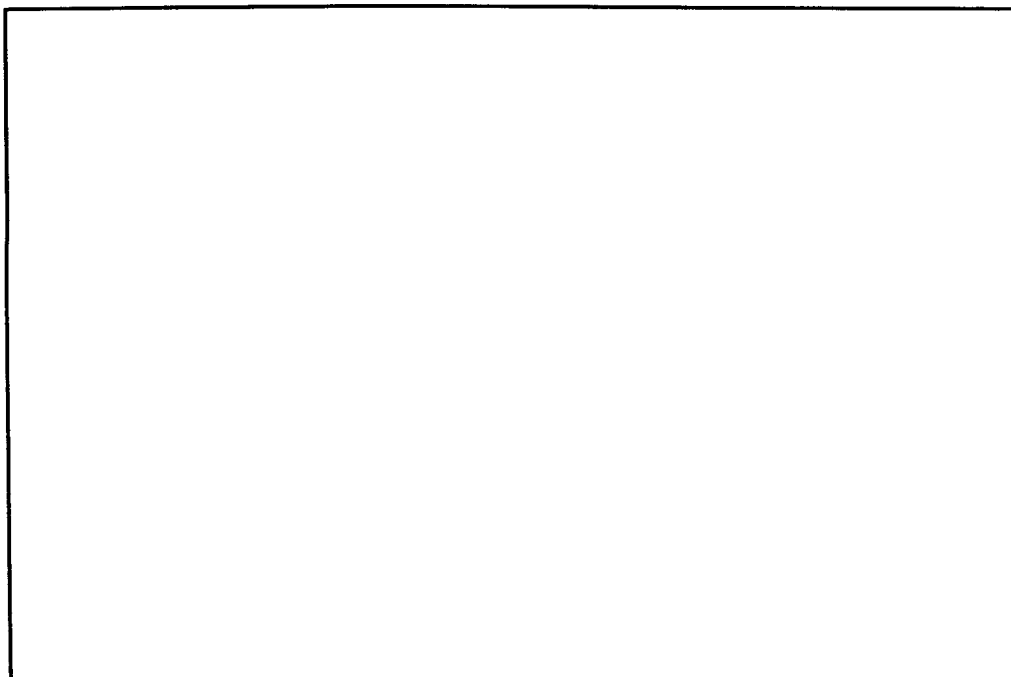
14. What support and information is given to parents of children who are diagnosed with dyslexia?

Interviews Leaflets Access to policy documents

Learning Materials School transfer

Advice on work at home

15. Any other issues you wish to raise about dyslexia?



Dear Colleague,

I am a teacher and lecturer working in a college of further education. I am undertaking a PhD at University College Chester, researching the prevalence of, and policy on, dyslexia in Wales. I am hoping that as a result of my work, the awareness of identification and support of children with dyslexia in Wales can be enhanced still further.

It is important for the research to ascertain the current practices, and I am asking you, as a concerned professional, to assist this research, by nominating a representative of the local education department who could take half an hour to answer a few questions about the policies, related to dyslexia, in your authority. All interviews will be **strictly confidential** and the finished report will be made available to the authority. I have enclosed a stamped addressed envelop for the convenience of your reply.

I am happy to answer any queries about the research on 01829 270 857 or e-mail thehayesfamily@tesco.net.uk. Thank you for your time and anticipated co-operation.

Yours faithfully,

Carol A. Hayes Cert Ed, B.Ed, M.Ed Dip HE.

I am happy to nominate
to undertake a half hour interview, concerning the policy on, and prevalence of,
dyslexia in this local education authority.

This nominee can be contacted, to arrange a convenient time for the interview, on:-

Telephone..... or

Fax..... or

E-mail.....

Signed..... Date.....

'R wyf yn hapus I enwebu.....
I ymgymryd â chyfweliad hanner-awr yng lŷn â pholisi, a chyffredinoldeb dyslecsia o
fewn yr awdurdod addysg lleol.

Gellir cysylltu â'r un a enwir, er mwyn trefnu amser cyfleus, ar:-

Ffôn.....neu

Ffacs.....neu

E-bost.....

Arwyddwyd..... Dyddiad.....

Annwyl Gydweithiwr.

'R wy'n athrawes ac yn ddarlithydd mewn coleg addysg bellach. 'R wy'n ymgymryd â doethuriaeth ym Mhrifysgol Caer, yn ymchwilio i'r polisi ynglŷn â, chyffredinoldeb dyslecsia yng Ng hymru. Gobeithiaf, fel canlyniad o'm gwaith, hyrwyddo a chodi ymwybyddiaeth o adnabod a chefnogi plant gyda dyslecsia yng Nghymru.

Mae'n bwysig i'r ymchwil wirio ymarfer presennol, a gofynnaf i chi, fel person proffesiynol perthnasol, helpu'r ymchwil drwy enwebu cynrychiolydd o'r adran addysg leol allai gymeryd hanner awr i ateb ychydig gwestiynau am y polisiau, perthnasol i dyslecsia, yn eich awdurdod. Bydd pob cyfweiliad yn **hollol gyfrinachol** a bydd yr adroddiad gorffennedig ar gael i'r awdurdod. Amgeuaf amlen er mwyn hwyluso eich ateb.

Byddaf yn fwy na pharod i ateb unrhyw gwestiynau am yr ymchwil ar 01829 270 857 neu drwy e-bost thehayesfamily@tesco.net.uk . Diolch o flaen llaw i chi am eich amser a'ch cydweithrediad.

Yn gywir,

Carol Hayes Cert Ed, B.Ed, M.Ed Dip HE.