

# House of Commons Science and Technology Committee

## **Evidence Check 1: Early Literacy Interventions**

## **Second Report of Session 2009–10**

Report, together with formal minutes, oral and written evidence

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#### The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Government Office for Science. Under arrangements agreed by the House on 25 June 2009 the Science and Technology Committee was established on 1 October 2009 with the same membership and Chairman as the former Innovation, Universities, Science and Skills Committee and its proceedings were deemed to have been in respect of the Science and Technology Committee.

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## **Contents**

Report		Page
	Summary	3
1	Background	5
	Evidence Check	5
	The inquiry	6
	Structure of the report	6
2	Every Child a Reader: Reading Recovery	7
	The policy	7
	Every Child a Reader and Reading Recovery	7
	Our expectations of the evidence base	8
	The value of early intervention	8
	The quality of evidence and benchmarking	9
	The Evidence Check	11
	The value of intervention	11
	Alternatives to Reading Recovery	15
	The quality of the evidence	16
	Randomised controlled trials	18
	An emphasis on phonics?	20
3	Dyslexia	23
	The policy	23
	Our expectations of the evidence base	24
	The Evidence Check	24
	Defining dyslexia	24
	Defining dyslexia in an educational context	26
	Teaching dyslexic children to read	28
	Policy drivers	30
4	Conclusions	31
	Conclusions and recommendations	32
Fo	rmal Minutes	34
VVI	tnesses	35
Lis	t of written evidence	35
Lis	t of unprinted evidence	36
Lis	t of Reports from the Committee during the current Parliament	37

## Summary

This report on early literacy interventions is our first Evidence Check, a novel programme of work, launched in July 2009, that asks two questions of government: (1) what is the policy? and (2) on what evidence is the policy based?

We have discovered that the Government's focus on early literacy interventions and phonics-based teaching is based on the best available evidence. We have also found that the Government's use of Reading Recovery is based on evidence, but a lower quality of evidence than we, as a Science and Technology Committee, are comfortable with. The Government's decision to roll out Reading Recovery nationally to the exclusion of other kinds of literacy interventions was, however, not evidence-based, and we have suggested that the Government should commission some high quality research, such as randomised controlled trials, in this area.

We have identified the Government's approach to teaching children diagnosed with dyslexia to read—namely, a structured phonics-based programme—is evidence-based on the best available evidence. But we discovered that the evidence base could be much stronger in this area. The Government's focus on dyslexia, from a policy perspective, was led by pressure from the dyslexia lobby rather than the evidence, which is clear that educational interventions are the same for all poor readers, whether they have been diagnosed with dyslexia or not.

In broad conclusion, we found that there was a willingness from the Department to base its approach to early literacy interventions on the evidence. However, we discovered worryingly low expectations regarding the quality of evidence required to demonstrate the relative effectiveness and, in particular, the cost-effectiveness of different programmes.

## 1 Background

This Government expects more of policy makers. More new ideas, more willingness to question inherited ways of doing things, better use of evidence and research in policy making and better focus on policies that will deliver long-term goals.

Cabinet Office, Modernising Government, 19991

#### **Evidence Check**

- 1. The House of Commons Science and Technology (S&T) Committee, after an absence of nearly two years, was re-formed on 1 October 2009. Our first priority was to continue the work that we undertook as the Innovation, Universities, Science and Skills (IUSS) Committee: to test the then Department of Innovation, Universities and Skills on its use of scientific and engineering expertise in governance. But now, as the Science and Technology Committee, we aim to extend this work across all Government departments. Therefore, in preparation for the transformation from IUSS to S&T, we commissioned work to assess the Government's use of evidence in policy-making.
- 2. In July 2009, we launched a novel programme of work dubbed 'Evidence Check'. We wrote to the Government on a number of topics and asked two questions: (1) what is the policy? and (2) on what evidence is the policy based? The topics were:
- the licensing of homeopathic products by the Medicines and Healthcare products Regulatory Agency (MHRA);
- the diagnosis and management of dyslexia;
- swine flu vaccinations:
- literacy and numeracy interventions;
- the teaching of 'pseudoscience' at universities;
- health checks for over 40s;
- measuring the benefits of publicly-funding research;
- the future of genetic modification (GM) technologies;
- the regulation of synthetic biology; and
- the use of offender data.
- 3. On receipt of the Government's responses,<sup>2</sup> we selected two topics that we felt required further scrutiny: (1) literacy and numeracy interventions and (2) the diagnosis and management of dyslexia. We decided to bring these topics together to form our first Evidence Check and in so doing, chose to narrow the focus to look only at early literacy

<sup>1</sup> Cm 4310, p 16

<sup>2</sup> Currently available on the Committee 's internet web pages at http://www.parliament.uk/parliamentary\_committees/science\_technology/s\_t\_misc\_reported\_papers\_08\_09.cfm; and to be published later in the session.

(not numeracy) interventions—in particular the Every Child a Reader programme—and considered the issue of dyslexia in parallel.

- 4. The reader should note that this is one part of our Evidence Check programme of work. We also decided to take further the topic of the licensing of homeopathic products by the MHRA. In this instance, we have broadened the focus to cover both the licensing and also the public funding of homeopathy. In addition, we sought answers to the Evidence Check questions—what is the policy and what evidence backs it up—on another seven topics:
- brain gym (a movement-based programme intended to enhance the learning of children);
- teaching English as an additional language;
- street lighting, CCTV and crime;
- road safety: bicycle helmets;
- road safety: speed cameras;
- wind turbine syndrome; and
- the human provenance pilot project.
- 5. The Government's responses to these Evidence Check questions have been published online<sup>3</sup> and we expect to select one of these topics to be our third Evidence Check, to take place in early 2010.

#### The inquiry

- 6. This inquiry evolved from two separate questions on literacy interventions and dyslexia. Although they overlap, the dual focus has remained throughout. Most of the written submissions were on one topic or the other and our evidential hearings maintained this pattern. Because we had commissioned responses from the Government prior to launching our inquiry, the Government's response was available for interested parties to read and comment on in their written submissions.
- 7. On 4 November 2009 we heard from two panels, the first on early literacy interventions and the second on dyslexia. In practice, the expertise of each panel spread across both topics and we explored elements of both issues with both panels. On 9 November 2009 we took evidence from the Parliamentary Under-Secretary of State for Schools, Diana R. Johnson MP, to discuss the Government's policy on early literacy interventions; and the Chief Scientific Adviser at the Department for Children, Schools and Families, Carole Willis, to discuss the evidence on which the Government's policy is based.

#### Structure of the report

8. The report is in two parts. The first is about early literacy interventions; the second about dyslexia. In each case, we have outlined the Government's policy, before stipulating what we would expect of a good evidence base and then proceeding with the Evidence Check.

## **2** Every Child a Reader: Reading Recovery

#### The policy

9. The former Prime Minister Tony Blair famously told the Labour Party conference in 1996 that "education, education, education" were his three main priorities for government. The National Strategies,<sup>4</sup> developed in 1998 and expanded in 2005-06, advocate three Waves of Provision for addressing the range of educational needs in schools:

Wave 1: Quality First Teaching. The majority of children achieve well through high quality classroom teaching. When children are being taught to read, Quality First Teaching provides high quality, systematic phonic work as part of a broad and rich curriculum that engages children in a range of activities and experiences to develop their speaking and listening skills and phonological awareness.

Wave 2: Small group and one to one interventions. Some children require additional support to achieve well. This can often be provided through small group, time limited intervention programmes delivered by a member of the school's classroom based support team that will advance children's progress and help them achieve in line with their peers.

Wave 3: Intensive support. This is for those children who require the personalised approach of a programme that is tailored to their specific, often severe, difficulties. It is usually taught as a one to one programme by a teacher or a member of the support staff who has undertaken some additional training for teaching children with reading difficulties.5

10. When in 2007 the Government formed the Department for Children, Schools and Families (DCSF), one of its first acts was to draw up The Children's Plan, which set out a bold vision for ensuring that "no child or young person is left to fall behind".6 One of the flagship elements of this promise was the Every Child programmes—Every Child a Reader, Every Child a Writer and Every Child Counts—which provide targeted support, including one-to-one tuition, for those children who in their early school years have difficulties with reading, writing and numeracy.

#### Every Child a Reader and Reading Recovery

11. Every Child a Reader (ECaR) is a programme of work aimed to help poor readers catch up with their peers. It consists of a programme of Reading Recovery (a type of one-to-one teaching intervention) for the lowest achieving 5% and less intensive intervention for the next lowest 15% delivered by teaching assistants and volunteers supported by the school's Reading Recovery teacher. The programme was launched as a three-year pilot in 2005,

www.nationalstrategies.org.uk

Sir Jim Rose, Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties, 2009, p 60

DCSF, The Children's Plan: Building brighter futures, 2007, p 4

Ev 3 [Every Child a Chance Trust], para 3.10

although it commenced national rollout only a year later.<sup>8</sup> The national rollout is being managed by the National Strategies, which are professional development programmes for early years, primary and secondary school teachers, practitioners and managers.<sup>9</sup>

12. Reading Recovery, the bedrock of the ECaR Wave 3 programme, was developed by the late Marie Clay in the 1970s in New Zealand, where approximately two thirds of schools use it. It has also been widely adopted in Australia and the USA, but less so in the UK. Reading Recovery comprises 12–20 weeks of intensive, one-to-one, daily tuition by specially trained teachers. It is designed for year 1 and 2 children.<sup>10</sup>

#### Our expectations of the evidence base

13. The effectiveness of the Government's policy for ensuring that no children are "left behind" rests on a number of factors. We looked at two: the Government's decision to prioritise literacy in education, particularly the decision to focus on tackling literacy interventions early in school; and the Government's decision to use Reading Recovery.

#### The value of early intervention

14. An obvious initial question is whether early interventions are worthwhile. There are two parts to this. First, whether early interventions are more effective than later interventions in terms of how well an individual will read into adulthood. Second, whether the cost of intervention is, from a societal point of view, worthwhile. Neither are easy to calculate.

15. The first would, for the best evidence, involve longitudinal studies of children who variously receive or do not receive reading interventions at differing times during their education. However, this would be exceedingly difficult to do and certainly unethical since it would involve leaving some children with known reading difficulties to fend for themselves rather than receive the same level of help as their peers. What researchers are left with is the far-from-ideal situation of having to compare those interventions that are made early in a child's education with those that are made later. (Some interventions, like Reading Recovery, are aimed specifically at very early schooling, years 1 and 2, some are aimed at later years and some are flexible across a wide age range.) This situation is unsatisfactory because the confounding factors that can be controlled in a snap-shot trial are more problematic over a long period of time. For example, some children who receive later literacy interventions because "they did not get it the first time" may not have received an intervention before, others may have received earlier interventions that did not

Policy Exchange, Rising Marks, Falling Standards, 2009, p 37

<sup>9</sup> www.literacytrust.org.uk/database/readingrecovery.html. According to www.nationalstrategies.org.uk: "Since 1998, the National Strategies have taken the form of a professional development programme providing training and targeted support to teachers (and increasingly practitioners). The training and support programmes have been supplemented by materials and resources provided free of charge and widely accepted as being of high quality. During 2005 and 2006, the National Strategies took on an expanded brief, which increased the age range covered and the way in which system-wide challenge and support is provided through the Strategies. The expanded functions include: Local Authority whole school improvement; School Improvement Partners; Behaviour & Attendance; Early Years from 0 to 5 years; 14–19."

<sup>10</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 95

<sup>11</sup> Q 20 [Professor Greg Brooks]

work; there will be differences in the amount of help children get from their parents and their peers; the underlying reasons for the difficulty may be hard to control and may have changed over time; and underlying difficulties can be cognitive or pedagogical or both.

16. Whether or not early interventions are better than later interventions is only part of the story. The bigger question is whether ensuring that every single child can read is really necessary. As a society, we choose to prioritise reading, but teaching children to read—all children—is expensive and teaching the very worst readers is very expensive indeed. Reading Recovery, for example, costs approximately £2,600 per child.<sup>12</sup> Is it worth it? To answer this question, we need to know the cost of doing nothing: it will either be more expensive to society, about the same or less. We did not put preconditions or stringent expectations on the nature of the research we were looking for in this area. Calculating societal costs is complicated and inevitably involves a large dose of estimation and generalisation. We discuss the quality of this evidence in paragraphs 26–29.

#### The quality of evidence and benchmarking

17. Educationalists put literacy interventions to the test to see whether they work or not, and if they do work, how effective they are. Here are the basics:

- In order to test whether a reading intervention has worked, one needs to know the starting reading standard of a child (pre-test assessment) and the finishing standard of a child (post-test).
- The gold standard research model is a randomised controlled trial (RCT). It is randomised so that decisions about who receives a reading intervention are taken out of the hands of the person who will be doing the teaching to avoid bias. It is controlled in the sense that those children who receive an intervention are compared against a matched group of children who do not.
- The silver standard is a quasi-experiment in which randomisation does not take place, but groups of children in the experimental group are matched against control groups of children who do not receive an intervention.

18. Of course, this is a simplification. One does not necessarily need to compare children who receive an intervention with those who do not. In the case of reading interventions it is preferable to compare different reading interventions directly against each other. There are three reasons for this:

- a) it is well established that one-to-one support for a child yields better results than normal classroom teaching;<sup>13</sup>
- b) what is more pertinent is how the variety of reading interventions compare in terms of effectiveness; and

<sup>12</sup> Ev 6 [Every Child a Chance Trust], para 6.6

<sup>13</sup> Greg Brooks, What works for pupils with literacy difficulties?, DCSF, 2007; Sir Jim Rose, Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties, 2009; Chris Singleton, Intervention for Dyslexia, 2009

- c) there are ethical problems with assigning children who have a known reading difficulty into an experimental category where they receive no extra help at all.
- 19. All of this is overlooking a very obvious question: how does one measure improvements in literacy? Dr Chris Singleton extols the virtues of standard (or standardised) scores on the grounds that "they are age-independent and test-independent and enable a proper comparison between different groups and different studies". Additionally, standardised scores are designed to make it possible to carry out what statisticians call 'parametric' statistics, which is a way of saying that the interactions between variables can be quantified and statistical significance calculated. In other words, when standardised tests are used it is possible to bring together numerous studies to improve the power of the data and to control for a variety of complicating variables.
- 20. The alternative to standardised scores are 'reading ages', which are metrics for how well normally progressing readers will develop. A normal reader aged 6 years 2 months will have a reading age of 6 years 2 months. This measure is less statistically robust than standardised scores.
- 21. The size of the difference between literacy skills at the start of an intervention and at the end of an intervention, or years later, can be calculated in two ways. The best is to calculate the 'effect size' between two standardised scores (where the mean is usually 100 and the standard deviation 15). By measuring the difference between two scores and dividing by the standard deviation, researchers can calculate statistically robust measures of success (or otherwise).
- 22. An alternative, less rigorous approach is to calculate the 'ratio gain'. In this measure, the reading (or spelling) age of a child during a set time frame is expressed as a ratio of that time frame. For example, a normal child aged 5 years 2 months will, three months later, have a reading age of 5 years 5 months. This is a ratio gain of 1.0. A child who progresses only three months in a year will have a smaller ratio gain, 0.25. What we are looking for is children who have fallen behind their peers but who receive extra help and improve quickly. Professor Greg Brooks, Research Director of the Sheffield arm of the National Research and Development Centre at the University of Sheffield, has suggested that ratio gains of 1.4 or higher are of "educational significance". Ratio gains are less satisfactory than effect sizes. They do not offer the same statistical rigour and they are particularly problematic for research on the lowest attaining readers because, for example, rapid improvement in reading age from a very low base will yield high ratio scores even if the children are still very poor readers.

<sup>14</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 26

#### The Evidence Check

#### The value of intervention

23. The Government's position is that the earlier an intervention can be made for a struggling reader, the better. We asked our panel of expert witnesses<sup>16</sup> about the evidence base for early interventions and they were in unanimous agreement:

**Chairman:** So, in your view, the evidence is there to say early intervention works?

**Professor Slavin:** I think without any doubt.

Chairman: Jean, do you support that?

*Jean Gross:* Yes, I do. I support that completely.

**Chairman:** Professor Brooks?

Professor Brooks: Yes, it is better if they come in early, when children are first identified as struggling, but there are also programmes for those who are picked up rather later.17

24. However, it is difficult to test directly and we have therefore had to rely on comparative evidence. We turned to Professor Greg Brooks' extensive review, What works for pupils with literacy difficulties?, which was commissioned by the Government.<sup>18</sup> The first edition came out in 1998, with subsequent editions in 2002 and 2007. The tables of effect sizes and ratio gains for all of the different interventions that he reviewed provide interesting reading. They suggest that on average the earliest interventions (years 1 and 2) are beneficial and provide approximately the same benefits, give or take a few effect size or ratio gain fractions, as later interventions (years 3 and beyond).<sup>19</sup> Both the very earliest interventions and later interventions are, on average, of "useful impact", to use Professor Brooks' language.20

25. It is clear that literacy interventions, both at the very earliest stages of formal education and later on, can be effective. This is all the evidence we need, since it logically follows that the earlier struggling readers are identified, the longer the time educationalists have to tackle the their problems and teach them to read. (It is possible that there are also additional benefits of bringing poor readers back to parity with their peers as early as

<sup>16</sup> Professor Bob Slavin, Director of the Institute for Effective Education, University of York, and Director of the Center for Research and Reform in Education, Johns Hopkins University; Jean Gross, Director of the Every Child a Chance Trust; Professor Greg Brooks, Research Director of the Sheffield arm of the National Research and Development Centre, University of Sheffield.

<sup>17</sup> Qq 3-5

<sup>18</sup> Greg Brooks, What works for pupils with literacy difficulties? DCSF, 2007

<sup>19</sup> We calculated this by averaging the effect size and ratio gain in the experimental groups on accuracy for those interventions that focussed on years 1 and 2 (the early cohort) and years 3 and beyond (the later cohort). We discounted those studies that assessed both early and later cohorts. The average effect size for the early interventions was 0.5 (excluding the highest effect size, 3.5, a clear outlier); for the later interventions it was 0.5. The average ratio gain for the early interventions was 2.5; for the later interventions it was 2.8 (excluding the highest ratio gain of 16.1, a clear outlier). This is not a rigorous test—for example, we did not weight according the quality of the trials—and is intended to be indicative only.

<sup>20</sup> Greg Brooks, What works for pupils with literacy difficulties? DCSF, 2007, p 270

possible—for example, boosting the self-esteem of the individuals and enabling them to take part more fully in the wider curriculum—although we have not been directed to evidence that supports these suppositions.) The Government's policy that literacy interventions should take place early on in formal education is in line with the evidence.

26. Another angle on the same topic, is to ask whether these literacy interventions are worthwhile from a societal point of view. The evidence we were referred to in order to answer this problem was research carried out by the KPMG Foundation<sup>21</sup> and the Every Child a Chance Trust,<sup>22</sup> although it is fair to say that this cannot be described as wholly independent given its interest in the work. These studies provided estimates of the cost of literacy difficulties to society. Some of these costs are simple to calculate because they are a direct consequence of literacy difficulties; for example, adult literacy classes. But the majority of costs require a subtle way of making estimations because the relationship between literacy difficulties and the cost-factors are complicated; for example, truancy, unemployment, teenage pregnancy, depression, obesity and crime.

27. The KPMG Foundation and Every Child a Chance Trust chose to make these complicated estimates by using frequency differentials. For example:

10% of women with average literacy levels experience depression and 36% of women with very low literacy skills experience depression. The differential frequency is therefore 26%.

Applying this figure of 26% to the 12,300 females in the year group population of 38,700 gives 3,198 more women with very poor literacy skills who can be expected to experience depression than would be expected if they were average readers.

79% of these (2,526 women) can be assumed to escape depression because early literacy intervention has successfully lifted them out of very low literacy levels.

We assumed that the differential rate of depression applies for adult life, and cannot be limited to a particular age range, so those with poorer literacy levels will be more likely to experience depression whatever their age.

The costs of depression were identified as £194 (inflated to 2008 prices) per year per depressed person.

This cost was then applied throughout the adult lives (ages 18–37, and over a lifetime) of the identified 2,526 subjects to obtain total cost savings for depression for women.<sup>23</sup>

28. These kinds of estimates are fraught with assumptions and generalisations that will undoubtedly lead to miscalculation. This particular methodology is likely to offer an overestimation of the cost, because its simple calculation of a differential frequency on the basis of two variables—normal literacy skills versus low literacy skills—means that a large

<sup>21</sup> KPMG Foundation, The long term costs of literacy difficulties, 2006

<sup>22</sup> Every Child a Chance Trust, The long term costs of literacy difficulties, 2<sup>nd</sup> edition, 2009

<sup>23</sup> Every Child a Chance Trust, The long term costs of literacy difficulties, 2<sup>nd</sup> edition, 2009, p 21

number of co-occurring variables have not been considered. To be fair, it would be very difficult to control for all these variables properly and both reports are proportionately littered with cautions about the data and methodologies. For example, one of the most difficult costs to calculate was crime. The Every Child a Chance Trust notes that there is a correlation between crime and literacy difficulties, but warns:

[The d]ifferentials [are] based on empirical data on [the percentage] of children with literacy difficulties who also have behaviour problems (and empirical data about costs of behaviour problems to criminal justice system) but [there are] no controls for other factors (such as general cognitive ability, social class) that might explain the link.24

- 29. With all the appropriate caveats and warnings, the two reports make estimates of the long term costs of literacy difficulties to society. The most recent Every Child a Chance Trust report, estimates that literacy difficulties cost England in the region of £2.5 billion every year (see Table 1).
- 30. The authors have suggested that these costs are "conservative" because they have not included items such as soft costs (like illness and loss of income) or "social services costs, social housing costs, the costs of generally poorer health, the costs of substance abuse over the age of 18, the costs of women's involvement in the criminal justice system and lost tax on pension income".26
- 31. Although in this section we have discussed the value of interventions in general, it is worth noting that the reports were commissioned explicitly to ascertain whether the Every Child a Reader programme represented value for money. The conclusion of the reports was that it did. The second edition calculates that for every pound spent on the Every Child a Reader programme, there is an overall return on investment of between £11 and £17.27
- 32. Estimating the cost of literacy difficulties is clearly not easy to do, but we believe that that should not stop researchers from making the best estimates they can. We were impressed by the KPMG Foundation and Every Child a Reader Trust's efforts. While the figures quoted are unlikely to be correct, they clearly show that there is a substantial cost associated with literacy difficulties. Spending money on literacy interventions is a cost effective thing to do. The Government's position that early literacy interventions are an investment that saves money in the long run is evidence-based.

<sup>24</sup> Every Child a Chance Trust, The long term costs of literacy difficulties, 2<sup>nd</sup> edition, 2009, p 46

<sup>25</sup> As above

<sup>26</sup> Every Child a Chance Trust, The long term costs of literacy difficulties, 2<sup>nd</sup> edition, 2009, p 21

<sup>27</sup> Every Child a Chance Trust, The long term costs of literacy difficulties, 2<sup>nd</sup> edition, 2009, p 5

Table 1. The long term costs of literacy difficulties.<sup>28</sup>

	Cost category	Total lifetime costs
Education costs	Special needs support-literacy and behaviour (primary)	£82.0m
	Special needs support-literacy and behaviour (secondary)	£113.3m
	Cost of maintaining a Statement of special educational needs	£90.7m
	Educational psychologists time	£4.4m
	Permanent exclusions	£1.4m
	Truancy	£3.8m
	Adult literacy classes	£2.4m
	Education total	£298.0m
Employment costs	Lost tax and NI revenues	£726.9m
	Unemployment benefits	£388.7m
	Lost indirect taxes	£662.6m
	Employment total	£1,778.2m
Social costs associated with being NEET (Not in Education Employment or Training)	Substance abuse and teenage pregnancy	£98.9m
3/	Social costs	£98.9m
Health Costs	Depression	£20.6m
	Obesity	£14.8m
	Health total	£35.4m
Costs of Crime	Costs of involvement with criminal justice system	£249.0m
	Crime total	£249.0m
	TOTAL	£2,459.5m

#### Alternatives to Reading Recovery

33. We are satisfied that the Government is right to support literacy interventions, but the question remains as to which literacy interventions are most appropriate. There are many choices. Professor Brooks reviewed the evidence in 1998, 2002 and 2007 for the Government. In the 2007 edition, he reviewed large and small group teaching, one-to-one teaching, paired reading, and teaching using information and communication technologies (ICT). He also analysed the impact of teaching phonological skills, comprehension and self-esteem. In all, he reviewed evidence for 48 different kinds of reading intervention.<sup>29</sup>

34. Given the large range of options, we asked the Government what other kinds of interventions were considered before the decision was taken to make Reading Recovery the bedrock of the Every Child a Reader programme. Jennifer Chew, a retired English teacher, summarised the Government's response to the Committee's question about the cost effectiveness of different literacy interventions:

Other literacy interventions are available which are cheaper than Reading Recovery, which are more consistent with Wave 1 teaching, and which arguably produce better results [...] If the government did consider alternatives before providing funding for Reading Recovery, it should be able to say which the alternatives were, how they were investigated, and what evidence led to the conclusion that they were less costeffective than Reading Recovery.<sup>30</sup>

35. In oral evidence, we asked Ms Johnson and Ms Willis what alternative interventions were considered. Ms Johnson told us she did not know the answer,<sup>31</sup> and Ms Willis pointed us to Professor Brooks 2002 review.<sup>32</sup> We asked for a supplementary memorandum from the Government on this point. The Government responded:

#### <u>Interventions other than Reading Recovery we considered</u>

The choice of Reading Recovery as the core intervention of the ECAR programme was made during the pilot phase led by the Every Child A Chance Trust. The Department saw no reason to change this when taking on the programme for national roll-out.33

36. In other words, the Government did not formally consider any other kind of intervention. We pressed Ms Willis on this point who reassured us that: "it is my strong interest and my purpose in the Department to ensure that policy is based on sound evidence".34 She continued:

<sup>29</sup> Greg Brooks, What Works for Children with Literacy Difficulties? The Effectiveness of Intervention Scheme, Department for Education and Skills, 2002, p 15

<sup>30</sup> Ev 67 [Jennifer Chew], para 7

<sup>31</sup> Q 184

<sup>32</sup> O 185

<sup>33</sup> Ev 54

<sup>34</sup> Q 119

We have commissioned an independent evaluation just recently from IFS [Institute for Fiscal Studies], the University of Nottingham, and NatCen to look very carefully at how the programme is implemented, to undertake a cost/benefit analysis and to look at the value for money of the way in which ECAR is being implemented. [...] What we will need to do [...] is compare that with other emerging evidence from alternative interventions.<sup>35</sup>

37. Ms Willis is right to acknowledge the need to compare Reading Recovery with alternative interventions. We conclude that, whilst there was evidence to support early intervention, the Government should not have reached the point of a national roll-out of Reading Recovery without making cost-benefit comparisons with other interventions.

#### The quality of the evidence

38. We have already discussed what evidence we were looking for in dealing with this problem: randomised controlled trials that use standardised test scores. We were alarmed to discover that both are lacking in the UK literacy research base. On data quality, Sir Jim Rose noted:

Most of the US studies included in Dr Chris Singleton's review<sup>36</sup> have reported standard scores; unfortunately few of the UK studies have done so, sometimes because the tests used do not provide tables of norms in standard score form.<sup>37</sup>

39. Professor Brooks, in the 2007 version of *What Works*, summarised some of the problems with the data used in UK literacy intervention trials:

Three particular problems arose from the tests used in the 121 studies. Firstly, some of the tests were old even when used in the relevant studies.

Secondly, most of the tests provided only reading/spelling age data and not standardised scores. Though apparently easier to interpret, reading and spelling ages are statistically unsatisfactory [...] Reading and spelling age data do allow the calculation of the ratio gain—but this is in itself not a very useful statistic, especially for low-attaining groups. [...]

Thirdly, for many of the tests used it was impossible to calculate effect sizes, which are statistically much more satisfactory than ratio gains. If a standardised test is used, an effect size can be calculated even in the absence of an explicit comparison group; but if a non-standardised test is used then an effect size can be calculated only if comparison group data, including the standard deviation, are reported.<sup>38</sup>

<sup>35</sup> Qq 119-120

<sup>36</sup> Chris Singleton, Intervention for Dyslexia, 2009

<sup>37</sup> Sir Jim Rose, Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties, 2009, p 176

<sup>38</sup> Professor Greg Brooks, What works for pupils with literacy difficulties? Department for Children, Schools and Families, 2007, p 110

- 40. We are concerned by the low quality of data collection in UK trials on literacy interventions. Government-funded trials should seek the best data so as to make the results as powerful as possible. Running trials that do not collect the best data is a failure both in terms of the methodological approach, but also value for money.
- 41. Professor Brooks also commented on the different types of trial model used to assess literacy interventions. He noted that there are very few randomised trials "and some of those were so small as to be hardly worth carrying out". 39 There were a few quasiexperiments with matched groups, but the bulk were either of unmatched groups or just one-group studies.

#### Research design of 121 studies analysed by Professor Brooks in the 2007 version of his review.<sup>40</sup>

Research design	n
randomised controlled trial	9
matched groups quasi-experiment	21
unmatched groups pre-test/post-test study	18
one-group pre-test/post-test study	73

42. Given the Government's support for Reading Recovery we were alarmed to discover that none of the nine randomised controlled trials were on Reading Recovery.<sup>41</sup> We were reassured by Ms Willis that there have been RCTs of Reading Recovery in the United **States:** 

Reading Recovery has a strong evidence base. It has been reviewed for example by the What Works Clearinghouse in the States and includes a number of randomised controlled trials.42

43. However, when we sought these trials, we discovered that they took place in 1988,<sup>43</sup> 1994, 44 1997, 45 and 2005. 46 More than 15 years separate the first trial from the most recent. This is important because Reading Recovery has evolved considerably over time: between the '90s and mid-'00s, Professor Brooks observed, "Reading Recovery changed

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<sup>40</sup> Greg Brooks, What Works for Children with Literacy Difficulties? The Effectiveness of Intervention Scheme, Department for Education and Skills, 2002, p 124

<sup>41</sup> Greg Brooks, What Works for Children with Literacy Difficulties? The Effectiveness of Intervention Scheme, Department for Education and Skills, 2002, pp 124-125

<sup>42</sup> Q 115; see also Q 171

<sup>43</sup> G. S. Pinnell, D. E. DeFord & C. A. Lyons, "Reading Recovery: Early intervention for at-risk first graders", Educational Research Service Monograph, (1988)

<sup>44</sup> G. S. Pinnell, C. A. Lyons, D. E. DeFord, A. S. Bryk & M. Seltzer, "Comparing instructional models for the literacy education of high-risk first graders", Reading Research Quarterly, Vol. 29 (1994), pp 8-39

<sup>45</sup> N. Baenen, A. Bernhole, C. Dulaney & K. Banks, "Reading Recovery: Long-term progress after three cohorts", Journal of Education for Students Placed at Risk, Vol. 2 (1997), p 161

<sup>46</sup> R. M. Schwartz, "Literacy learning of at-risk first-grade students in the Reading Recovery early intervention", Journal of Educational Psychology, Vol. 97 (2005), pp 257-267

considerably, to reflect international research, and now includes a large amount of phonological awareness and phonics".<sup>47</sup> In other words, three of the four RCT trials were on a kind of Reading Recovery that is not used in the UK.

44. Ms Willis stated that the Government has accepted the United States What Works Clearinghouse report as supporting the effectiveness of the Reading Recovery programme, but was unaware of evidence from Mary Reynolds *et al* in the International Journal of Disability, Development and Education, which contradicts this work and concludes other methods would probably work better.<sup>48</sup>

45. The Government should be careful when selecting evidence in support of educational programmes that have changed over time. Reading Recovery today differs from its 1980s and 1990s ancestors. Evidence used to support a national rollout of Reading Recovery should be up-to-date and relevant to the UK. The Government's decision to roll out Reading Recovery nationally is not based on the best quality, sound evidence.

#### Randomised controlled trials

46. To recap, the Government is rolling out Reading Recovery nationally without having subjected it to a randomised controlled trial in the UK school system. The Government had an opportunity to commission a randomised controlled trial of Reading Recovery when it started the three-year pilot for Every Child a Reader in 2005. It would have been particularly sensible in the light of calls from leading experts that RCTs were needed. In 2001, Carole Torgerson and David Torgerson from the Institute for Effective Education, University of York, made a general call for more RCTs in educational research:

Educational researchers have largely abandoned the methodology they helped to pioneer. This gold-standard methodology should be more widely used as it is an appropriate and robust research technique. Without subjecting curriculum innovations to a RCT then potentially harmful educational initiatives could be visited upon the nation's children.<sup>49</sup>

And Professor Brooks made a specific call for an RCT on Reading Recovery when he was a member of the advisory group to the Every Child a Reader study.<sup>50</sup>

47. We asked Ms Willis, DCSF's Chief Scientific Adviser, why an RCT had not been undertaken. She told us that RCTs are "the gold standard in terms of research" but that "I do not believe it is always essential to have a randomised controlled trial".<sup>51</sup> She noted a number of problems with running an RCT:

<sup>47</sup> Greg Brooks, What works for pupils with literacy difficulties? 2007, p 74

<sup>48</sup> Reynolds, M., & Wheldall, K. (2007). "Reading Recovery 20 years down the track: Looking forward, looking back. International Journal of Disability, Development and Education", Vol. 54, pp 199–223

<sup>49</sup> C. J. Torgerson & D. J. Torgerson, "The need for randomised controlled trials in educational research", *British Journal of Educational Studies*, Vol. 49 (2001), pp 316–328

<sup>50</sup> Q 56

<sup>51</sup> Q 134

- there is a "logistical issue around picking schools and then randomly allocating them and then having [...] teacher leaders in local authorities [...] going out to train up the teachers in individual schools";52
- it is difficult to get schools to agree to take part in research generally and randomised controlled trials in particular;53 and
- DCSF has a "limited research budget" and "matched comparison groups can be undertaken at less cost and deliver very similar quality results".54

#### 48. She added, however, that:

I should add the Department is not against RCTs. We are running a number. We have one underway looking at foster care and we have one underway looking at how to reduce teenage pregnancy, a very interesting randomised controlled trial there, although that has taken over a year just to try and get the methodology right and actually convince people to take part. Of course we have the Every Child Counts randomised controlled trial.55

49. We cannot understand why these issues warranted the extra time, effort and money, and a crucially important issue such as literacy did not. We put it to Ms Willis that the Government should have criteria for determining whether or not a research project requires an RCT,56 for example, in the Magenta Book, which provides guidance on social science research and policy evaluation.<sup>57</sup> We were pleased that Ms Willis found our suggestion "interesting".58 We recommend that the Government should draw up a set of criteria on which it decides whether a research project should be a randomised controlled trial.

50. But still the question remains as to whether a randomised trial was necessary. Jean Gross, Director of the Every Child a Chance Trust, thinks it was: "Looking back, I wish at the time we had been able to find money to do a randomised control trial".<sup>59</sup> And as we already mentioned, Professor Brooks thought so too.60 We agree. The arguments put forward by Ms Willis for not doing an RCT do not stand up to scrutiny.

51. The argument that it is difficult to persuade schools to engage in research is made on the basis that "Some local authorities or schools perceive it as unfair that some of their pupils will be getting some sort of intervention that others are not".61 This is focussing on a problem that should not exist. We have already said that because it is so clear that one-to-

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52 Q 177
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<sup>53</sup> Qq 163, 177

<sup>54</sup> Q 134

<sup>55</sup> As above

<sup>56</sup> O 168

<sup>57</sup> Ev 56; Government Social Research Unit, The Magenta Book: guidance notes for policy evaluation and analysis, 2007

<sup>58</sup> Q 168

<sup>59</sup> Q 24

<sup>60</sup> Q 56

<sup>61</sup> Q 163

one interventions are better than doing nothing it is not worth conducting trials that compare one-to-one interventions against no intervention. Rather, it would be more beneficial to conduct randomised trials that compared two or more kinds of intervention, in order to determine which was better. This would avoid the ethical problem of some children not receiving help when they need it and should make it easier to persuade schools to take part in research (provided the interventions offered reasonable prospect of improvement).

52. The logistical difficulties of conducting randomised trials for literacy interventions are no different than for any other kind of educational randomised trial; they are not prohibitive and accordingly neither are the costs (approximately £250,000).<sup>62</sup> As we have already discussed, early literacy interventions appear to be highly cost effective. In our view, proven cost effective measures that have the potential to be even more cost effective should be subjected to the highest quality research, not marginally cheaper substitutes. The Government spent a lot of money setting up the pilot programme for Every Child a Reader, which failed to gather the highest quality data or use a gold-standard trial design.

53. Finally, Professor Brooks raised another problem with running randomised controlled trials: time.<sup>63</sup> Although running an RCT does not take longer than any other kind of well designed trial, setting one up can take a long time. Ms Willis told us that it has taken over a year to set up an RCT on reducing teenage pregnancies.<sup>64</sup> But this is not a good enough excuse: the pilots for Every Child a Reader were due to run for three years from 2005. That would have been more than enough time to set up and run a large randomised controlled trial on a more than just Reading Recovery.

## 54. We conclude that a randomised controlled trial of Reading Recovery was both feasible and necessary.

55. But we are where we are. The Government is rolling out Every Child a Reader nationally. However, we do not consider this a reason to abandon further research. Reading Recovery is an expensive component of the ECaR programme and if there is an equally effective but cheaper alternative, it should be sought out. Research in this area should be ongoing, not stop when the Government decides to roll out a particular programme. We recommend that the Government identify some promising alternatives to Reading Recovery and commission a large randomised controlled trial to identify the most effective and cost-effective early literacy intervention.

#### An emphasis on phonics?

56. We have one final concern. The teaching of systematic phonics (see box below) became a requirement by National Curriculum Order in 2007.<sup>65</sup> But, according to Dr Singleton, Senior Research Fellow at the University of Hull, Reading Recovery is "a pedagogical sibling to the 'whole-language' theory of reading, which maintains that reading skills arise

<sup>62</sup> Q 24

<sup>63</sup> Q 54

<sup>64</sup> Q 134

<sup>65</sup> Ev 55

#### **Phonics**

Sir Jim Rose, in his 2006 report on the teaching of early reading, quotes Linnea Ehri:

Phonics is a method of instruction that teaches students correspondences between graphemes in written language and phonemes in spoken language and how to use these correspondences to read and spell words. Phonics instruction is systematic when all the major grapheme-phoneme correspondences are taught and they are covered in a clearly defined sequence.<sup>69</sup>

- Synthetic phonics: readers are taught to break down words into their constituent parts and work out how to pronounce words for themselves (e.g., 'shrink' would be broken down into 'sh', 'r', 'i', 'n' and 'k' and blended together).
- Analytical phonics: readers are taught consonant blends as units (e.g., 'shr' is taught as a whole unit) and analyse sound-symbol relationships but do not blend the words together.
- Embedded phonics: readers are taught phonics as part of a whole-word approach to reading, not as separate lessons.

He went on to recommend, and the Government accepted, that "the case for systematic phonic work is overwhelming and much strengthened by a synthetic approach".70

naturally out of frequent encounters with interesting and absorbing reading materials".66 This view of learning has been "increasingly contested" said Dr Singleton in his 2009 review of the evidence,67 and over time the accumulating evidence on the benefits of systematic phonics work has influenced the way in which Reading Recovery is delivered.<sup>68</sup> Despite this trend, Dr Singleton concludes that:

[N]either Reading Recovery as part of [Every Child a Reader] nor Reading Recovery in the UK more generally provides *systematic* phonics instruction. [... D]espite these reported changes to the reading recovery programme, a fundamental conflict still remains between its approach and the revised National Literacy strategy, in which systematic teaching of phonics is now a central feature.<sup>71</sup>

57. We received evidence that supported this position. Elizabeth Nonweiler, Teach to Read, highlighted Dr Sue Bodman's method of delivering a Reading Recovery lesson:

<sup>66</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 96

<sup>67</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 97

<sup>68</sup> As above

<sup>69</sup> Sir Jim Rose, Independent review of the teaching of early reading, Department for Education and Skills, 2006, p 17

<sup>70</sup> The Rose Report, p 20

<sup>71</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 99

Bodman (2007)<sup>[72]</sup> describes a Reading Recovery lesson, which, she claims, 'links the teaching actions to the ideas of synthetic phonics': After reading a book, a child observes his teacher reading the word 'can' 'whilst demonstrating a left to right hand sweep'. Then he builds 'can' with magnetic letters and reads it himself. It is clear that the child was asked to read a text before acquiring the phonic knowledge and skills involved, and to read a word after being told the pronunciation. With synthetic phonics children read texts after learning the phonic knowledge and skills involved and they are not told the pronunciation of a new word before being asked to read it.<sup>73</sup>

58. We put it to the Minister, Ms Johnson, that the Government's use of Reading Recovery to help the poorest readers does not square with its support of the use of systematic phonics, particularly for children diagnosed with dyslexia. She told us:

Perhaps I ought to just say that the Reading Recovery that we are looking at, in terms of the evidence of Reading Recovery over the last 20 or 30 years, has changed and obviously phonics is now much more embedded within Reading Recovery than it was in the earlier examples of Reading Recovery.<sup>74</sup>

59. Phonics is "embedded" in the modern Reading Recovery, but systematic, synthetic phonics, as we have discussed above, is not. Teaching children to read is one of the most important things the State does. The Government has accepted Sir Jim Rose's recommendation that systematic phonics should be at the heart of the Government's strategy for teaching children to read. This is in conflict with the continuing practice of word memorisation and other teaching practices from the 'whole language theory of reading' used particularly in Wave 3 Reading Recovery. The Government should vigorously review these practices with the objective of ensuring that Reading Recovery complies with its policy.

<sup>72</sup> S. Bodman, "Skilful teaching of phonics in Reading Recovery", The Running Record, Issue 12 (2007), pp 3–5

<sup>73</sup> Ev 74 [Elizabeth Nonweiler], para 5

## **3** Dyslexia

#### The policy

60. In May 2008, the Secretary of State for Children, Schools and Families, the Rt Hon Ed Balls MP, asked Sir Jim Rose:

to make recommendations on the identification and teaching of children with dyslexia, and on how best to take forward the commitment in the Children's Plan to establish a pilot scheme in which children with dyslexia will receive Reading Recovery support or one-to-one tuition from specialist dyslexia teachers.<sup>75</sup>

61. Sir Jim Rose's report ("the Rose Report") was published in June 2009. Sir Jim commented:

The Children's Plan made it clear that the Government wants every child to succeed, and it hardly needs to be said that the ability to read well is key to success in education and an essential 'life skill'. Moreover, reading and writing are closely related, and both are dependent on the development of children's speaking and listening capabilities. As the review explains, responses to overcoming dyslexia and other developmental difficulties of language learning and cognition must be robust and set within high quality provision for securing literacy for all children, especially in primary schools.<sup>76</sup>

62. Sir Jim went on to make 19 recommendations that required action by DCSF and a number of non-government bodies. Those aimed at DCSF included suggestions that the Department should:

- fund a number of teachers to undertake specialist training in teaching children with dyslexia so that access to specialist expertise can be improved across local authorities and schools will form partnerships to share expertise;<sup>77</sup>
- cancel the pilot scheme in which children with dyslexia will receive Reading Recovery support (see paras 78–79);<sup>78</sup> and
- work with partners to develop additions to the delivery of Every Child a Reader and other interventions, particularly to make them more focussed on phonic work.<sup>79</sup>

63. The Government accepted and endorsed all of Sir Jim's recommendations<sup>80</sup> and made available £10 million to support their implementation, including funding for the training of 4,000 specialist dyslexia teachers.81

<sup>75</sup> The Rose Report, 2009, p 8

<sup>76</sup> The Rose Report, 2009, p 1

<sup>77</sup> The Rose Report, 2009, p 23

<sup>78</sup> The Rose Report, 2009, p 26

<sup>79</sup> The Rose Report, 2009, pp 25-26

<sup>80</sup> HC Deb, 22 June 2009, col 41WS

#### Our expectations of the evidence base

64. Literacy difficulties are common and complex. There are a range of reasons why a person may find it difficult to read and write and many of these are claimed to be dyslexia. Given that this is a matter of dispute, the first part of the evidence base must be to define what is meant by dyslexia. What should we expect of a definition of dyslexia? First and foremost, the definition should make it possible to differentiate between people who have dyslexia and people who do not; that is, make diagnosis possible. A secondary consideration is contextual: dyslexia has to be considered in an academic sense (the physiological causes and cognitive manifestation of dyslexia as well as the tools that can be used to manage it) and in a practical educational sense (what difficulties the teacher will have to overcome in order to teach a dyslexic child to teach, and following on from that, what techniques a classroom teacher will employ to teach a child to read). A good definition of dyslexia will take context into account.

65. Following a definition, we are looking for an evidence-base for how best to teach dyslexic children to read. In terms of the kinds of evidence that we are looking for, it is much the same as for general literacy interventions. The best kind of trial design is the randomised controlled trial (RCT). The best kind of data is standardised scores that have statistical power and comparative value (see para 19). It is obvious but worth saying that we are looking for trials specifically on teaching dyslexic children to read, not just poor readers.

#### The Evidence Check

#### Defining dyslexia

66. Given the prevalence of people who have been diagnosed as dyslexic, we expected that it had been well defined. In fact, defining dyslexia has proved very difficult. A European Union European Social Fund review of developmental dyslexia concluded that "Dyslexia can be defined in more ways than one, but each definition outlines a different concept". <sup>82</sup> The authors went on to define seven different ways in which a person might be described as dyslexic:

- Either people are 'dyslexic' if they have alphabetic skills deficits (Seymour, 1986; Stanovich, 1996).
- Or people are 'dyslexic' if they have severe and persistent difficulty in acquiring alphabetic skills, even though their difficulties might be attributable to moderate learning difficulties or sensory impairments (British Psychological Society, 1999).
- Or people are 'dyslexic' if they experience difficulty in attaining fluency by automatising word-recognition skills, so long as that difficulty can be attributed, at least in part, to a constitutional factor (Gersons-Wolfensberger & Ruijssenaars, 1997).

<sup>81</sup> Ev 101

<sup>82</sup> M. Rice & G. Brooks, *Developmental dyslexia in adults: a research review*, European Union European Social Fund, 2004, p 17

- Or people are 'dyslexic' if their difficulty in acquiring alphabetic skills cannot be attributed to any more probable explanation (such as moderate learning disability or sensory impairment), especially if that explanation relates to experience or opportunity; and this definition is 'exclusionary' (World Federation of Neurology, 1968).
- Or, with a difference of emphasis, people are 'dyslexic' if their difficulty in acquiring alphabetic skills is accompanied by specific neurological impairments, no one of which may be necessary or sufficient for diagnosis; and this definition is 'inclusionary' (Miles, 1982).
- Or people are 'dyslexic' if they show a characteristically uneven pattern of facility and difficulty; this definition, too, is inclusionary (Miles, 1983).
- Or people are 'dyslexic' if they share a secondary characteristic with others who have difficulty in acquiring alphabetic skills, even if they do not experience this difficulty themselves (Miles, Wheeler, & Haslum, 2003).

67. The Rose Report acknowledged these problems with definitions and the Expert Advisory Group<sup>83</sup> constructed a "working definition for the review that includes key characteristics".84

- Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.
- Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.
- Dyslexia occurs across the range of intellectual abilities.
- It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.
- Co-occurring difficulties may be seen in aspects of language, motor coordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.
- A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to wellfounded intervention.85

68. According to Dyslexia Action, a charity and provider of educational services for people with dyslexia and learning difficulties, this definition has received "universal acclaim and agreement" and it has "been adopted by all the dyslexia organisations".86

<sup>83</sup> The Expert Advisory Group to the Rose Review included Dr Singleton and Professor Brooks, who gave oral evidence to the Committee, as well as Professor Stuart who submitted a written memorandum.

<sup>84</sup> The Rose Report, p 29

<sup>85</sup> The Rose Report, 2009, p 30

<sup>86</sup> Ev 22 [Dyslexia Action] para 1.7

abilities. It is worthy of research that the dyslexic continuum exists with co-occurring difficulties—to use Sir Jim's definition—such as motor coordination, mental calculation and concentration. Studies on twins have shown that reading difficulties are heritable, and molecular data point to a site on the short arm of chromosome 6, among other genetic loci.90

73. But we are specifically interested in the Government's policy for diagnosing and managing dyslexia in the real world, in schools. We therefore asked whether diagnosing a child with dyslexia will have any impact on the educational support that he or she receives. As we have noted, the Government has promised "funding for around 4,000 teachers to train in appropriately accredited specialist dyslexia teaching". 91 We wanted to establish that the Government was planning to provide a separate approach to teach dyslexic children, as opposed to children with other kinds of reading difficulties, so we checked with the Minister:

**Dr Iddon:** So the Government has a separate policy for dyslexics once dyslexia is diagnosed?

Ms Johnson: One of the recommendations out of the Sir Jim Rose report on dyslexia was around having specialist dyslexia teachers to work with children who have been diagnosed with dyslexia, so yes.92

74. We found a definition of 'specialist dyslexia teaching' in the Rose Review, quoting Thomson (1990)<sup>93</sup> who had identified the following features common to most specialist teaching programmes:

- Phonetic.
- Multisensory—by which is meant the active and interactive integration of visual, auditory, kinaesthetic and tactile elements of teaching and learning.
- Cumulative.
- Sequential.
- Progressive.
- Small steps.
- Logical.
- Over-learning (by which is meant the systematic use of repetition, both within and between lessons, in the attempt to ensure that newly acquired skills and material are automatised, consolidated in memory, so that they can be readily

<sup>90</sup> The Rose Report, p 37

<sup>91</sup> Ev 101

<sup>92</sup> Q 189

<sup>93</sup> M. Thomson, Developmental Dyslexia (3rd edition), 1990

applied or recalled when needed, and will not be disrupted or confounded by subsequent lesson material).<sup>94</sup>

75. We asked the experts from whom we took evidence if there was anything in this definition that was not found in teaching practices for all students who struggle with reading. Shirley Cramer, CEO of Dyslexia Action, told us:

If you are talking about a six-year-old who is struggling with literacy you will be doing the same. In fact, we [Dyslexia Action] have programmes ourselves where we work with mainstream education and we use our multi-sensory teaching techniques and phonological awareness with all the children. We do not care why they are struggling with reading.<sup>95</sup>

76. This brings us back to the problem of the definition. As Professor Elliott put it:

The definition in this report is so amorphous and so difficult to operationalise and to utilise that in a sense when you are looking at it across countries it is not really much of an issue for me. The question is: How useful is this differentiation of the dyslexic as opposed to other youngsters who present with reading problems?<sup>96</sup>

77. The answer we reached was that it is not useful from an educational point of view. There is no convincing evidence that if a child with dyslexia is not labelled as dyslexic, but receives full support for his or her reading difficulty, that the child will do any worse than a child who is labelled as dyslexic and then receives specialist help. That is because the techniques to teach a child diagnosed with dyslexia to read are exactly the same as the techniques used to teach any other struggling reader. There is a further danger that an overemphasis on dyslexia may disadvantage other children with profound reading difficulties. We conclude that 'specialist dyslexia teachers' could be renamed 'specialist literacy difficulty teachers'. There are a range of reasons why people may struggle to learn to read and the Government's focus on dyslexia risks obscuring the broader problem. The Government's support for training teachers to become better at helping poor readers is welcome and to be supported, but its specific focus on 'specialist dyslexia teachers' is not evidence-based.

#### Teaching dyslexic children to read

78. DCSF's 2007 *Children's Plan* set aside funding for "a pilot scheme in which children with dyslexia will receive Reading Recovery support or one-to-one tuition from specialist dyslexia teachers". 97 However, Dr Singleton has argued in his extensive 2009 review that Reading Recovery was unlikely to be effective for the teaching of dyslexics:

Literature searches failed to uncover any published evaluations of Reading Recovery being used with dyslexic pupils. To decide the question whether Reading Recovery actually works for children with dyslexia therefore requires further research.

<sup>94</sup> The Rose Report, pp 89-90

<sup>95</sup> Q 90

<sup>96</sup> Q 78

<sup>97</sup> DCSF, The Children's Plan: Building brighter futures, December 2007, p 9

However, dyslexic children, by definition, have specific problems in acquiring effective knowledge of letter-sound relationships and of the rules that govern these, and in order to become independent readers who can tackle unfamiliar words, they are likely to need more rather than less intensive instruction in phonics. In consequence, it is unlikely that Reading Recovery—in which the teaching of phonics is less than systematic and which enables only a rather small proportion of children taught by this method to tackle unfamiliar words-would be an effective intervention for dyslexia.98

- 79. Following this advice, the Rose Report recommended that the "dyslexia pilots proposed in the Children's Plan should not go ahead",99 which the Government accepted.100
- 80. So what method should be used? Sir Jim Rose, citing Dr Singleton's review of dyslexia interventions, 101 concluded:

There is a well established evidence-base showing that intervention programmes which systematically prioritise phonological skills for reading and writing are effective for teaching reading to children with dyslexia. [...] Intervention sessions for dyslexia therefore need to have a strong, systematic phonic structure. 102

- 81. We have reservations about this conclusion, given Dr Singleton's summary of the evidence in his report: "few of the phonics-based interventions [...] have been evaluated specifically with children who have dyslexia". 103 He also noted that "Few of the studies in this field conform to methods that may be described as 'gold standard' (i.e. randomised control trials)".104 We have already noted (para 78) that none of the Reading Recovery studies looked at its impact specifically on children with dyslexia. 105
- 82. We are left concerned that, as with the wider issue of reading interventions, the trial qualities in this area are not of a sufficiently high standard. Sir Jim's assessment of the existing evidence base—namely that a systematic phonic structure to teaching dyslexic children to read is the best approach—is probably correct, but there is a clear need for properly constructed trials, in which children who have been identified as dyslexic are matched against proper control groups and subjected to a range of different interventions. We recommend that future research on the impact of literacy interventions on children with dyslexia should be well designed randomised controlled trials, using appropriate control groups (including children with other reading difficulties and 'normal' children), and test a range of literacy interventions.

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98 Chris Singleton, Intervention for Dyslexia, 2009, p 11
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<sup>99</sup> The Rose Report, p 15

<sup>100</sup> Ev 101

<sup>101</sup> Chris Singleton, Intervention for Dyslexia, 2009

<sup>102</sup> The Rose Report, p 14

<sup>103</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 120

<sup>104</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 7

<sup>105</sup> Chris Singleton, Intervention for Dyslexia, 2009, p 118

#### **Policy drivers**

83. When we asked the Minister why dyslexic children receive a label that identifies their particular (in theory) problem, but other children do not, she replied:

Clearly the dyslexia lobby has been very clear that they wanted to have identified the particular concerns and conditions of dyslexia and that is why the Government decided to ask Sir Jim Rose to look particularly at dyslexia and to look at the evidence. 106

84. This is an interesting admission: that the Government decided to spend time and money looking specifically at dyslexia because of the strength of the dyslexia lobby, rather than because of any pre-existing, well researched, well defined problem. We have demonstrated the range of difficulties in this area: that dyslexia is so broadly defined that it encompasses a continuum of reading difficulties that have little if any relation to specific literacy interventions; and that the research in this area is not of the highest quality. The Minister's admission explains why teachers who are being trained to help all children with reading difficulties are labelled 'specialist dyslexia teachers'. We recommend that the Government be more independently minded: it should prioritise its efforts on the basis of research, rather than commissioning research on the basis of the priorities of lobby groups.

### **4** Conclusions

85. This first Evidence Check has been a useful exercise. We have discovered that the Government's focus on early literacy interventions and phonics-based teaching is based on the best available evidence. We have also found that the Government's use of Reading Recovery is based on evidence, but a lower quality of evidence than we, as a Science and Technology Committee, are comfortable with. The Government's decision to roll out Reading Recovery nationally to the exclusion of other kinds of literacy interventions was, however, not evidence-based, and we have suggested that the Government should commission some high quality research, such as randomised controlled trials, in this area.

86. We have identified the Government's approach to teaching children diagnosed with dyslexia to read—namely, a structured phonics-based programme—is evidence-based on the best available evidence. But we discovered that the evidence base could be much stronger in this area. The Government's focus on dyslexia, from a policy perspective, was led by pressure from the dyslexia lobby rather than the evidence, which is clear that educational interventions are the same for all poor readers, whether they have been diagnosed with dyslexia or not.

87. In broad conclusion, we found that there was a willingness from the Department to base its approach to early literacy interventions on the evidence. However, we discovered worryingly low expectations regarding the quality of evidence required to demonstrate the relative effectiveness and, in particular, the cost-effectiveness of different programmes.

88. By way of final comment, we reflected on possible reasons for these low expectations of research quality and turned to the Government guidelines on social science research and policy evaluation, which are found in the Magenta Book.<sup>107</sup> We found that the sections on randomised controlled trials only consider an RCT design that places an experimental group against a non-experimental group. 108 Even when considering the ethical problems of assigning people to a non-experimental group, 109 it fails to consider the alternative RCT design where experimental group is compared against experimental group. We, among others, have suggested that directly comparing experimental groups is the most appropriate test for ascertaining the relative effectiveness of different literacy interventions (see Chapter 2). As a yardstick, even Wikipedia is more thorough and informative than the Government's guidelines on randomised controlled trials in that it considers a range of RCT designs.<sup>110</sup> It is hardly surprising that civil servants who rely on a set of guidelines that do not describe the full range of viable research options would have low expectations regarding the quality of social science research and evidence. We recommend that the Government review its Magenta Book with a view to raising its expectations of social science research and evidence in relation to policy.

<sup>107</sup> Ev 56; Government Social Research Unit, The Magenta Book: guidance notes for policy evaluation and analysis, 2007

<sup>108</sup> Government Social Research Unit, The Magenta Book: guidance notes for policy evaluation and analysis, 2007, sections 1.3.6 and 7.2-7.5

<sup>109</sup> Government Social Research Unit, The Magenta Book: guidance notes for policy evaluation and analysis, 2007, section 7.5.3

<sup>110</sup> http://en.wikipedia.org/wiki/Randomized\_controlled\_trial

## Conclusions and recommendations

#### **Every Child a Reader: Reading Recovery**

- 1. The Government's policy that literacy interventions should take place early on in formal education is in line with the evidence. (Paragraph 25)
- 2. The Government's position that early literacy interventions are an investment that saves money in the long run is evidence-based. (Paragraph 32)
- 3. Ms Willis is right to acknowledge the need to compare Reading Recovery with alternative interventions. We conclude that, whilst there was evidence to support early intervention, the Government should not have reached the point of a national roll-out of Reading Recovery without making cost-benefit comparisons with other interventions. (Paragraph 37)
- 4. We are concerned by the low quality of data collection in UK trials on literacy interventions. Government-funded trials should seek the best data so as to make the results as powerful as possible. Running trials that do not collect the best data is a failure both in terms of the methodological approach, but also value for money. (Paragraph 40)
- 5. The Government should be careful when selecting evidence in support of educational programmes that have changed over time. Reading Recovery today differs from its 1980s and 1990s ancestors. Evidence used to support a national rollout of Reading Recovery should be up-to-date and relevant to the UK. The Government's decision to roll out Reading Recovery nationally is not based on the best quality, sound evidence. (Paragraph 45)
- **6.** We recommend that the Government should draw up a set of criteria on which it decides whether a research project should be a randomised controlled trial. (Paragraph 49)
- 7. We conclude that a randomised controlled trial of Reading Recovery was both feasible and necessary. (Paragraph 54)
- **8.** We recommend that the Government identify some promising alternatives to Reading Recovery and commission a large randomised controlled trial to identify the most effective and cost-effective early literacy intervention. (Paragraph 55)
- 9. Teaching children to read is one of the most important things the State does. The Government has accepted Sir Jim Rose's recommendation that systematic phonics should be at the heart of the Government's strategy for teaching children to read. This is in conflict with the continuing practice of word memorisation and other teaching practices from the 'whole language theory of reading' used particularly in Wave 3 Reading Recovery. The Government should vigorously review these practices with the objective of ensuring that Reading Recovery complies with its policy. (Paragraph 59)

#### **Dyslexia**

- The Rose Report's definition of dyslexia is exceedingly broad and says that dyslexia is a continuum with no clear cut-off points. The definition is so broad and blurred at the edges that it is difficult to see how it could be useful in any diagnostic sense. (Paragraph 71)
- We conclude that 'specialist dyslexia teachers' could be renamed 'specialist literacy 11. difficulty teachers'. There are a range of reasons why people may struggle to learn to read and the Government's focus on dyslexia risks obscuring the broader problem. The Government's support for training teachers to become better at helping poor readers is welcome and to be supported, but its specific focus on 'specialist dyslexia teachers' is not evidence-based. (Paragraph 77)
- We recommend that future research on the impact of literacy interventions on 12. children with dyslexia should be well designed randomised controlled trials, using appropriate control groups (including children with other reading difficulties and 'normal' children), and test a range of literacy interventions. (Paragraph 82)
- We recommend that the Government be more independently minded: it should prioritise its efforts on the basis of research, rather than commissioning research on the basis of the priorities of lobby groups. (Paragraph 84)

#### **Conclusions**

- In broad conclusion, we found that there was a willingness from the Department to base its approach to early literacy interventions on the evidence. However, we discovered worryingly low expectations regarding the quality of evidence required to demonstrate the relative effectiveness and, in particular, the cost-effectiveness of different programmes. (Paragraph 87)
- We recommend that the Government review its Magenta Book with a view to raising its expectations of social science research and evidence in relation to policy. (Paragraph 88)

## **Formal Minutes**

#### Wednesday 9 December 2009

Members present:

Mr Phil Willis, in the Chair

Mr Tim Boswell Dr Brian Iddon
Mr Ian Cawsey Ian Stewart
Dr Evan Harris Graham Stringer

Draft Report (*Evidence Check 1: Early Literacy Interventions*), proposed by the Chairman, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 88 read and agreed to.

Papers were appended to the Report.

*Resolved*, That the Report be the Second Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Written evidence was ordered to be reported to the House for printing with the Report together with written evidence reported and ordered to be published on 21 October and 25 November.

[Adjourned till Wednesday 6 January at 9.00am.

# Witnesses

## Wednesday 4 November 2009 Page Professor Bob Slavin, Institute for Effective Education, University of York, Jean Gross, Every Child a Chance Trust, and Professor Greg Brooks, Research Director, Sheffield National Research and Development Centre, University of Sheffield Ev 13 **Dr Chris Singleton,** Lucid Research Ltd, **Professor Julian Elliott,** Director of Research in the School of Education, Durham University, and Shirley Cramer CBE, **CEO**, Dyslexia Action Ev 23 Monday 9 November 2009 Diana R. Johnson MP, Parliamentary Under-Secretary of State for Schools, and Carole Willis, Chief Scientific Adviser and Director of Research and Analysis, Department for Children, Schools and Families Ev 39

# List of written evidence

1	Davis Learning Foundation	Ev 58
2	National Union of Teachers	Ev 59
3	Economic and Social Research Council	Ev 61
4	Bonita Thomson	Ev 62
5	Dr Simon Gibbs	Ev 62
6	Association of Teachers and Lecturers	Ev 64
7	Dyslexia Action	Ev 21
8	Dr Gordon Rugg and Sue Gerrard	Ev 65
9	Jennifer Chew Ev	66, 67
10	Michael Lea	Ev 68
11	Geraldine Carter Ev	70, 72
12	Elizabeth Nonweiler	Ev 72
13	Diane McGuinness	Ev 74
14	Every Child a Chance Trust	Ev 1, 7
15	Ruth Allen	Ev 76
16	Bella Hewes	Ev 78
17	Dr Morag Stuart, Dr Jackie Masterson, Dr Julie Dockrell and Dr Yvonne Griffith	s Ev 79
18	Professor Usha Goswami	Ev 83
19	Uta Frith	Ev 85
20	Julia Douetil	Ev 85
21	Centre for Reading & Language, Department of Psychology, University of York	Ev 87
22	Dr Kim S. H. Rochelle	Ev 88
23	Dr Ian Smythe	Ev 90

24	Fionna Pilgrim	Ev 90
25	Sara Kramer	Ev 92
26	Department for Children, Schools & Families	Ev 34, 35, 54, 101
27	Dr Susan Burroughs Lange	Ev 93
28	Professor Roger Beard	Ev 95
29	Derrie Clark	Ev 96
30	NAHT Special Educational Needs Sector Committee	Ev 98
31	INDIGO (Foundation) Norfolk	Ev 98
32	Professor Robert Slavin	Ev 12
33	Professor Julian Elliott	Ev 31
34	Yvonne Meyer	Ev 99
35	Dr Chris Singleton	Ev 33
36	Elmhurst Primary School	Ev 100

# List of unprinted evidence

The following memoranda have been reported to the House, but to save printing costs they have not been printed and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Parliamentary Archives, and are available to the public for inspection. Requests for inspection should be addressed to The Parliamentary Archives, Houses of Parliament, London SW1A 0PW (tel. 020 7219 3074). Opening hours are from 9.30 am to 5.00 pm on Mondays to Fridays.

LI 20 Julia Douetil – Appendices

HC 506

[incorporating HC 469-i]

# List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

## Session 2009-10

Fourth Special

Report

First Report	The work of the Committee 2008-09	HC 103
Second Report	Evidence Check 1: Early Literacy Interventions	HC 44
Session 2008–09		
First Report	Re-skilling for recovery: After Leitch, implementing skills and training policies	HC 48–I (HC 365)
Second Report	The Work of the Committee 2007-08	HC 49
Third Report	DIUS's Departmental Report 2008	HC 51-I (HC 383)
Fourth Report	Engineering: turning ideas into reality	HC 50-I (HC 759)
Fifth Report	Pre-appointment hearing with the Chair-elect of the Economic and Social Research Council, Dr Alan Gillespie CBE	HC 505
Sixth Report	Pre-appointment hearing with the Chair-elect of the Biotechnology and Biological Sciences Research Council, Professor Sir Tom Blundell	HC 506
Seventh Report	Spend, spend, spend? – The mismanagement of the Learning and Skills Council's capital programme in further education colleges	HC 530 (HC 989)
Eighth Report	Putting Science and Engineering at the Heart of Government Policy	HC 168-I (HC 1036)
Ninth Report	Pre-appointment hearing with the Chair-elect of the Science and Technology Facilities Council, Professor Michael Sterling	HC 887
Tenth Report	Sites of Special Scientific Interest	HC 717 (HC 990)
Eleventh Report	Students and Universities	HC 170-I (HC 991)
Session 2007–08	i e	
First Report	UK Centre for Medical Research and Innovation	HC 185 (HC 459)
Second Report	The work and operation of the Copyright Tribunal	HC 245 (HC 637)
Third Report	Withdrawal of funding for equivalent or lower level qualifications (ELQs)	HC 187-I (HC 638)
Fourth Report	Science Budget Allocations	HC 215 (HC 639)
Fifth Report	Renewable electricity-generation technologies	HC 216-I (HC 1063)
Sixth Report	Biosecurity in UK research laboratories	HC 360-I (HC 1111)
Seventh Report	Pre-legislative Scrutiny of the Draft Apprenticeships Bill	HC 1062-I (HC (2008-09)262)
First Special Report	The Funding of Science and Discovery Centres: Government Response to the Eleventh Report from the Science and Technology Committee, Session 2006–07	HC 214
Second Special Report	The Last Report: Government Response to the Thirteenth Report from the Science and Technology Committee, Session 2006–07	HC 244

Investigating the Oceans: Government Response to the Science and

Technology Committee's Tenth Report of Session 2006-07

# Oral evidence

# Taken before the Science and Technology Sub-Committee on Wednesday 4 November 2009

Members present: Mr Phil Willis, in the Chair

Mr Tim Boswell Dr Brian Iddon Mr Ian Cawsey Graham Stringer Dr Evan Harris

## Memorandum submitted by the Every Child a Chance Trust (LI 14)

Response to evidence check on the Government's policy on literacy interventions for school children with reading difficulties and the evidence base for the Every Child a Reader programme

#### 1. Introduction

1.1 This submission is from the Every Child a Chance Trust, a charity which aims to

unlock the educational potential of socially disadvantaged children through the development and promotion of evidence based, early intervention programmes. The charity was initiated by the KPMG Foundation and is funded by a coalition of business partners and charitable trusts. It is a successor body to the KPMG-led coalition that set up the Every Child a Reader 2005-08 pilot initiative to tackle the problem of a static 6% of children (35,000 a year) entering secondary school without even the most basic skills in reading and writing (below National Curriculum Level 3—that is, with literacy skills at or below the level of the average seven year old).

- 1.2 Every Child a Reader provides one-to-one literacy intervention to six year old children. Its purpose is to ensure that every child achieves age related expectations at the end of Key Stage 1, when they are seven. It funds schools to employ and train specialist teachers who deliver daily one-to-one teaching for the children with the most severe difficulties, and provide training, coaching and support to other adults (usually teaching assistants) who deliver lighter-touch interventions for children with less severe needs.
- 1.3 In 2008 the Trust handed over the delivery of Every Child a Reader in its entirety to government, for roll out through the National Strategies. The Trust retains a residual involvement, which includes an independent monitoring function of the national roll-out and work to enlist local business support for primary schools involved.

#### 2. THE EVIDENCE BASE FOR EVERY CHILD A READER

- 2.1 Every Child a Reader was set up in 2005 as a result of two year's investigation into literacy interventions by the KPMG Foundation. The Foundation met with dyslexia experts and experts in the government's National Strategies, and consulted Professor Greg Brooks' authoritative review of the field. As a result, they concluded that the internationally used Reading Recovery intervention should be at the heart of the Every Child a Reader programme.
- 2.2 Reading Recovery was not selected because it was the only effective literacy intervention. In a research review commissioned by the then DfES in 2002<sup>1</sup> Greg Brooks had identified 19 interventions with an evidence base of success in the UK. Reading Recovery was selected, however, because it was the only one of these schemes identified that could reliably meet the aims of the programme—to tackle the needs of the lowest-achieving 6% of children and bring them back quickly to the level of their peers early in their school careers.
  - 2.3 The rationale for the choice was that:
    - Reading Recovery achieved higher rates of gain than any other programme aimed at nonreaders—four times the "normal" rate of gain;
    - it had been shown to be particularly effective long-term for children who live in poverty. The Reading Recovery 2004-05 national evaluation had shown that 40 % of children on the Reading Recovery programme were eligible for free school meals compared to the national figure of 18%). Yet 84% achieved average literacy levels for their age as a result of the programme;
    - evidence from international research suggested that other "cheaper" forms of early intervention using teaching assistants and volunteers, or group rather than one-to-one work, were not successful with the lowest-attaining children;

Brooks, G What works for children with literacy difficulties: the effectiveness of intervention schemes. London: DfES research report 380.

- - Reading Recovery was the only intervention for which there was convincing evidence of impact that was sustained over a number of years, Much research has demonstrated that the effects of literacy interventions that produce strong initial gains tend to "wash out" over time. Most of the interventions reported on by Greg Brooks evaluated impact before and after an intervention; many followed up children's progress after six months to a year. Only Reading Recovery and Family Literacy had followed up children's progress over a number of years. A long-term study by the Institute of Education followed up over 600 children who had received Reading Recovery in England in 1997 or 1998. Four to five years later, 51% reached Level 4+ in reading in their end of Key Stage 2 tests compared to 82% of all children. Without Reading Recovery, their chances of achieving Level 4+ would have been almost nil;
  - Reading Recovery was based on early intervention, which is more cost effective than intervening when children are older and difficulties are more entrenched, and
  - it had the potential to impact on overall literacy standards across the school, providing cost benefits that would be greater than those assessed per child directly supported. Most reading intervention programmes do not aim to impact on children other than those directly supported. Reading Recovery does; it emphasises the benefits of having a highly trained literacy expert in the staff and encourages schools to exploit this fully so as to impact on standards across the school. This means it provides cost benefits that extend well beyond the eight to 10 children directly taught each year.
- 2.4 Importantly, Reading Recovery was selected because it had an infrastructure of training and quality assurance capable of being progressively scaled up whilst also securing what is called "fidelity to the programme". Scaling up was possible because of the presence of a national team of trainers who could train local authority "Teacher Leaders", who in their turn would train teachers in schools Fidelity means that those delivering an intervention continue to deliver it in the same way, to the same standard, however long it is since they had their initial training. Research has shown that this is a key issue in any form of intervention—over time, there is less fidelity and more variability in impact. Reading Recovery has a high degree of fidelity because, once trained, Reading Recovery teachers must attend ongoing training year on year and be observed by the Teacher Leaders in order to retain their accreditation. Teacher Leaders similarly have to attend ongoing training and be observed training teachers in order to retain their place in the programme.

#### 3. Lower Cost Interventions

- 3.1 Research was examined on schemes which might provide the same impact as Reading Recovery at lower cost. It showed that whilst alternatives such as teaching in groups rather than one to one, and support from teaching assistants rather than trained teachers, can be effective for children with less severe difficulties, they do not work for the lowest attaining children.
- 3.2 A number of studies had documented the greater impact of one to one teaching when compared to group instruction. Pinnell and her colleagues,<sup>2</sup> for example, compared the effects of one to one teaching with partially trained teachers, group teaching with fully trained Reading Recovery teachers and a control group. Pupils in the "Reading Recovery as designed" group significantly out-performed other groups on all measures. Children in the "group teaching" model made progress, but not sufficient to catch up to the average, and the progress was not so well sustained at later follow up.
- 3.3 A large-scale, high-profile \$9.6 million study in the US<sup>3</sup> provided intensive help in groups for third and fifth graders who were struggling to learn to read (80 hours of help, one teacher to three students, using structured phonic programmes). The study found that the help improved skills for eight year olds but was less effective for 10 year olds. The interventions were also very much less successful with low-income children. And even where there was improvement, the children did not catch up with strong readers, who were continuing to advance.
- 3.4 These findings contrasted with those for Reading Recovery, where annual data reports had consistently demonstrated that an average of 37 hours of one-to-one teaching enabled 84% of UK six year olds to catch up completely with their peers.
- 3.5 Research was also examined which documented the failure of traditional small group remedial instruction to close the gap for children from poor and minority group backgrounds.<sup>4</sup> Bob Slavin, for example, found that pupils who are already doing well do not benefit substantially from one to one tuition, but that for those who are seriously struggling it can be essential. He examined the effectiveness of five one

Allington, 2001; Allington and Cunningham, 2002, Shepard, 1991.

Pinnell GS, Lyons CA, DeFord DE, Bryk AS, and Seltzer M (1994) Comparing Instructional Models for the literacy education of high risk first graders. In Reading Research Quarterly 6(1), 83–101.

Torgesen, J, Myers D, Schirm, A, Stuart, E, Vartivarian, S, Mansfield, W, Stancavage, F, Durno, D, Javorsky, R, and Haan, C (2006) *National Assessment of Title I: Interim Report Volume II: Closing the Reading Gap.* Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance NCEE 2006-4002, US Department of Education.

to one literacy tutoring programmes used in the US, including Reading Recovery, across sixteen separate cohorts Comparing the cost of one to one tutoring with class size reduction and the cost of an additional teaching assistant in each classroom, he found that tutoring was more cost effective.<sup>5</sup>

- 3.6 Comparing the use of a trained teacher as opposed to a teaching assistant or trained volunteer, the research reviewed pointed to differential effects according to the degree of literacy difficulty that an intervention has to tackle. Greg Brooks, for example, reviewed the Better Reading Partnership intervention, in which volunteers or teaching assistants work one to one with children for ten weeks. He concludes that the programme led to "gains in all year groups as long as the children had started reading; it is not successful with non-readers".
- 3.7 Hatcher<sup>6</sup> evaluated the effectiveness of an intervention implemented on a daily basis by a trained teaching assistant, who alternated between small group and one-to-one teaching. The programme was targeted at children showing reading delays at the end of their first year at school. It was successful for the majority of children, but not for all: between a quarter and a third of children showed a decline in reading standard scores over the period of the intervention. Those with severe reading problems at the beginning of the study and children in receipt of free school meals had the poorest response to the programme.
- 3.8 The conclusions drawn from this research were that the most efficient and cost-effective approach in Every Child a Reader would be a "layered" one in which highly trained teachers worked with the hardestto-teach children, but teaching assistants worked one-to-one with children in the next layer of need, and with groups with those children who are just below the level of their peers.
- 3.9 There was also evidence that teaching-assistant-led interventions were more effective when the assistant is supported in school by a literacy expert. Cartwright, 7 for example, compared outcomes on the teaching assistant-led Fischer Family Trust Wave 3 intervention programme for two groups of children: those where the work of the assistant was supported and supervised by a trained Reading Recovery teacher, and those whose work was supported and supervised by their school's special educational needs coordinator. 68% of the children in the first group succeeded in doubling their normal rate of progress, compared to only 26% in the second group. Similar results are reported by Canning.8
- 3.10 Every Child a Reader was designed on the basis of these findings, with Reading Recovery for the very lowest achieving 5% nationally, and other less intensive interventions for the next lowest 15% delivered by teaching assistants and volunteers supported by the school's Reading Recovery teacher.

#### 4. Next Steps

- 4.1 Once designed, the programme was piloted in 2005-06 in 500 schools and the impact evaluated through Reading Recovery's routine system for gathering pre and post test measures on all children involved (with post-tests always carried out by a teacher who has not taught the child), and through research commissioned from the Institute of Education in which outcomes for Year 1 children in 21 schools with Reading Recovery were compared with those for children in 21 matched comparison schools without the programme.
- 4.2 In the context of the CSR review for the 2008–11 financial cycle, the business and charitable partners involved in Every Child a Reader provided information to government in the autumn of 2006 on the impact of the first year of the programme, and the case for extending it more widely from 2008. This submission is tabled here as Appendix 1.9

#### 5. More Recent Evidence

- 5.1 The Institute of Education evaluation found that in the year of the main study (2005–06), those children who received Reading Recovery in school Year 1 achieved significant gains in all assessments compared with those who did not. At the end of the year the literacy achievement of children who had received Reading Recovery was in line with their chronological age. The matched comparison group in schools without Reading Recovery (but using a range of other small group and one to one interventions) was 14 months behind their chronological age.
- 5.2 In July 2007 the literacy achievement was again compared of those same children remaining in the same 42 schools. The phonic and word reading, and writing measures were repeated along with a new reading comprehension measure. At the end of school Year 2 the children who had received Reading Recovery in Year 1 were achieving within or above their chronological age band on all measures and were still around a year ahead of the comparison children in schools where the programme was not available. The

Slavin, R and Madden, N (2003) Success for All/Roots and Wings: Summary of research on achievement and outcomes CRESPAR: Baltimore, 2003.

Hatcher, P, Hulme, C, Miles, J, Carroll, J, Hatcher, J, Gibbs, S, Smith, G, Bowyer-Crane, C, Snowling, M (2006) Efficacy of small group reading intervention for beginning readers with reading-delay: a randomised controlled trial. Journal of Child Psychology and Psychiatry, 47.

Cartwright, G Wave 3 Literacy: evaluation 2003-04. Unpublished study for Education Bradford.

Canning, J (2004) FFT Wave 3: report of findings from a 10-week pilot. London: Fischer Family Trust.

Not Printed.

Burroughs-Lange. S (2008) Comparison of literacy progress of young children in London schools: a Reading Recovery follow up study. http://www.ioe.ac.uk/schools/ecpe/readingrecovery/index.html

Reading Recovery children had an average word reading age of 7y 9m, compared to 6yr 9m for the comparison children. The gender gap that was noticeable amongst low attaining comparison children, with boys lagging behind girls, was not evident in Reading Recovery schools, where there was no gender gap. Writing achievement showed a significant difference between Reading Recovery and comparison children. At the end of Year 2, the children who had received Reading Recovery were able to write twice as many correctly spelled, words as those children who were in the comparison group.

- $5.3\,$  Over 86% of those who received Reading Recovery in Year 1 went on to achieve an age-appropriate level 2+ in National Curriculum Reading assessments at end of Year 2. This percentage is higher than the whole national Year 2 cohort, of whom 84% achieved Level 2+ in 2007. 77% of Reading Recovery children achieved National Curriculum Level 2b+ (the national cohort figure was 71%). None of Reading Recovery children were working towards Level 1 (non-readers). Comparison figures for the matched lowest achieving children in non-Reading Recovery schools were 57% achieving National Curriculum Level 2+ and 30% Level 2b. In the comparison groups almost 10% of low achieving group were still non-readers (Working towards Level 1). In writing, over 83% of those who received Reading Recovery in Year 1 went on to achieve the age-related National Curriculum Level 2+, compared to 80% in the 2007 National Year 2 cohort, and 57.7% in the comparison groups.
- 5.4 The study also followed up progress in classroom literacy. A word recognition and phonic measure was repeated and "Progress in English 7" comprehension measure was used with the Year 2 classes. Children in sample classrooms with Reading Recovery available to the lowest group when in Year 1, ended Year 2 with an average reading age 3+ months above that of children in comparison Year 2 classrooms.
- 5.5 In February 2007 (updated in December 2008), the US Department for Education's What Works Clearinghouse published the outcomes of a three-year independent review of the experimental research on Reading Recovery. The WWC report found that Reading Recovery has positive effects on students' alphabetics skills and general reading achievement. A finding of positive effects is the WWC's highest rating, on a four-point scale based on the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies.
- 5.6 A recent review by Bob Slavin and his colleagues<sup>12</sup> included Reading Recovery as one of its three top-rated programmes available in the UK. The review also, however, noted that outcomes for Reading Recovery were less positive than might have been expected, and suggests that other one-to-one tutoring programmes have higher weighted mean effect sizes.
- 5.7 The difference between these conclusions and those of the independent US government's What Works Clearinghouse relate to the exclusionary criteria used. Studies were excluded if they used pre and post-test measures designed by the experimenters. ("Experimenter-made measures were accepted if they were comprehensive measures of reading, which would be fair to the control groups, but measures of reading objectives inherent to the experimental program (but unlikely to be emphasized in control groups) were excluded"). Many international studies of Reading Recovery do use a measure designed by the programme originator—called the Observation Survey. This includes a test of text reading in which children are asked to read aloud from levelled (graded by difficulty) readers, while testers record the error rate. There are also tests of letter identification, hearing and recording sounds in words, and the number of correctly spelled words child can write unaided. Although designed by the programme originator, the Observation Survey test is a reputable, standardized test of early literacy skills and not specifically linked to Reading Recovery teaching methodology; it includes areas that form part of many batteries of tests of early literacy and most definitely covers reading objectives that control groups would also be covering.
- 5.8 Another exclusionary criterion applied in the Slavin review was studies where post-tests were not done by an independent tester. A recent major Randomised Controlled Trial by Schwartz et al<sup>13</sup> was excluded because there was an assumption that post-tests were done by the teacher who has taught the child. This is not the case; in Reading Recovery post-tests are always done by someone other than the child's Reading Recovery teacher—a "link teacher" from the school receives a half day training and conducts the tests.
- 5.9 A further exclusionary criterion was absence of data on the matching of groups at pre-test. This means, for example, that an important long term follow up study of Reading Recovery is omitted. This study<sup>14</sup> followed up 121 children in 13 different schools who were between 10 and 12 years of age and who had Reading Recovery when they were six. The comparison group of 121 children were those who at six had also had reading difficulties but had not been sufficiently low on the literacy test to warrant being included in the programme because they were not the very lowest achievers in the age group. At follow up the Reading Recovery children wrote longer, more accurate and qualitatively better prose than the controls, were more positive in their attitudes to reading, and had higher reading accuracy and comprehension (by on average 12 months for reading accuracy and 13 months for reading comprehension). This study was rejected because

What Works Clearinghouse (2008) WWC Intervention report: Reading Recovery. US Department of Education Institute of Education Sciences.

<sup>&</sup>lt;sup>12</sup> Slavin, R, Lake, C, Davis, S and Madden, N (2009) What Works for Struggling Readers. York: Institute for Effective Education.

<sup>&</sup>lt;sup>13</sup> Schwartz, RM (2005) Literacy learning of at-risk first-grade students in the Reading Recovery early intervention. Journal of Educational Psychology, 97, 257–267.

<sup>&</sup>lt;sup>14</sup> Moore, M and Wade, B (1998) Reading Recovery: its effectiveness in the long term Support for Learning, 13, 3.

there was no data on the initial matching of children in experimental and comparison group. But the point is that the comparison group were higher achieving at the age of six, but ended up behind the Reading Recovery group at age 10n to 12.

- 5.10 In claiming that the effects of Reading Recovery do not last, the Slavin review relies heavily on a study by Hurry and Sylva, published in 2007, but does not note that this study is a re-analysis of data from a much earlier study of children who took part in Reading Recovery in 1992, when Reading Recovery was very much in its infancy in England. Much has changed in the intervening 18 years. The intervention itself has developed with revised core procedures taking account of research and further developments in understandings about, among other things, phonological skills in reading. Because of the National Literacy Strategy children are less likely to go back into classroom contexts where they will not receive ongoing literacy support. More recent studies show that gains are maintained.
- 5.11 In considering the Slavin review it is also important to note that it includes interventions targeted at the lowest 33% of the literacy attainment range. There can be no assumption that what works for the broader group will be the same as what works for the lowest 5% of the attainment range who are targeted for Reading Recovery. Any conclusion that, for example, interventions delivered by paraprofessionals are as effective as those delivered by specialist teachers need to be interpreted with this in mind.
- 5.12 Recent critiques of Reading Recovery have also been made by Singleton, 15 and by Reynolds and Wheldall. Again, researchers reviewed essentially the same evidence base as the What Works Clearinghouse and the Slavin review, but came to different conclusions. Singleton, for example, concludes that group intervention is as effective as one to one intervention, whereas Slavin reaches the opposite conclusion. Singleton, whilst recognising that independent research studies show benefits for many children on Reading Recovery programmes, argues that comparisons of the ratio gains made by children in Reading Recovery and in the other interventions reviewed appear on balance to favour the latter. His review, however, mis-represents the ratio gains from Reading Recovery and fails to take into account the very different starting points of children in the studies he includes, many of which targeted children who were only a little below average rather than having severe reading difficulties. He also argues that Reading Recovery is unlikely to be effective for dyslexic children because in his view the teaching of phonics in Reading Recovery is less than systematic. Yet phonics is taught daily in Reading Recovery and children are over the course of their series of lessons brought to the same level of phonic knowledge as their non-reading disabled peers.
- 5.13 Reynolds and Wheldall present research which purports to show that the majority of children do not maintain the gains made in Reading Recovery. By their own calculations, however, 85% of children who had successfully completed Reading Recovery were working within or above the acceptable band for literacy subsequently. It is hard to see how that constitutes evidence of failure, given that the children in Reading Recovery were the lowest attaining before the intervention. 93% of the "comparison" group were working at those levels, but the comparison group were the remainder of the cohort after the lowest attaining had been taken out.
- 5.14 A final critique of Every Child a Reader has come from those who are of the opinion that there should not be a need for any intensive and expensive intervention for children with literacy difficulties, once systematic teaching of phonics for all children is embedded. In response we would note that existing evidence dos not support the assertion. In the well-known Clackmannanshire study of synthetic phonics teaching, despite clear gains in spelling and word recognition in eleven year olds who were taught to read using by synthetic phonics, one in 20 pupils was two years or more below average in word reading, and almost a fifth of boys in reading comprehension. Even the best-known commercially available synthetic phonics programmes claim only to reduce the numbers of children who fail from 20–25% to 5%.<sup>17</sup> It is precisely at these very lowest achieving children that Reading Recovery is aimed.
- 5.15 The experience of Every Child a Reader in the years 2005–09 has been that schools that make good use of synthetic phonics—for example, those that have been using Ruth Miskin Literacy or Phonographix systematically with whole classes for a number of years—also sign up readily for Reading Recovery. They report that while their synthetic phonics programmes work very well for the majority of children, a small minority remain non-readers. As an example, a school in Newham held up as a model of effective implementation of the Ruth Miskin approach (including one-to-one support from a teaching assistant for children who are experiencing difficulties) had in 2008 11% of children achieving below the nationally expected Level 2 or above in Reading at the end of Key Stage 1. In a similar school in Hackney, providing Reading Recovery for its very lowest achievers in addition to effective phonics teaching for all children, only 5% failed to achieve Level 2+.

Singleton, C (2009) Interventions for dyslexia. London: No to Failure.

Reynolds, M, and Wheldall, K (2007). Reading Recovery 20 years down the track: Looking forward, looking back. International Journal of Disability, Development and Education, 54, 199-223.

<sup>&</sup>lt;sup>17</sup> Christopher Jolly, managing director of Jolly Learning (Jolly Phonics), personal communication.

#### 6. Conclusion

- 6.1 Our reading of the literature is that there are many interventions that work for children with literacy difficulties and many are cheaper than Reading Recovery. What needs to be considered, however, is whether alternative interventions will:
  - get children completely back to average rather than just narrow the gap between them and their peers;
  - work for children in the very lowest 5% of the achievement range—total non-readers; and
  - have an infrastructure of training and quality assurance to guarantee 'fidelity to the programme' ie mean that as the programme scaled up, with more schools involved, it would continue to be delivered in a consistent way.
- 6.2 Most research on literacy interventions reports effect sizes or ratio gains but does not report the percentage of children who catch up completely with their peers. Reading Recovery does this and in the first four years of the Every Child a Reader programme it has consistently been 77–78%.
- 6.3 It is also important to analyse the effectiveness of interventions according to the severity of children's initial difficulties. Many reviews do not do this.
- 6.4 It would be useful therefore for the Committee to be aware that there is not one answer of "what works" for children with literacy difficulties, but a more complex answer "what works for whom—at what age and with what level of difficulty". Every Child a Reader aims to provide a response of this level of complexity. As well as Reading Recovery for the bottom 5% nationally, it incorporates "layered interventions", in which the next lowest 15% receive lighter touch, less intensive (and cheaper) interventions delivered by teaching assistants and drawn from Greg Brooks evidence on what works. The Reading Recovery teacher supports the teaching assistants delivering these so that there is fidelity to the programme. This is what makes Every Child a Reader cost effective—targeting the more expensive, intensive intervention at the children with the greatest needs whilst at the same time providing for the whole of the bottom 20% with a variety of other less intensive/expensive programmes.
- 6.5 It might be tempting, particularly in the current economic climate, to abandon the more expensive interventions for the children with the greatest difficulties. We have argued, however, that if we do not spend on the very bottom 5% and do what we know works reliably for them, then the costs to the public purse of this group later on will hugely outweigh the investment in Reading Recovery. Persistent literacy difficulties are linked to costly special educational needs provision, truancy, exclusion from school, reduced employment opportunities, increased health risks and a greatly increased link of involvement in the criminal justice system. These increased risks operate over and above those associated with social disadvantage in general, and those associated with lack of qualifications. A report we commissioned from KPMG, "The long term costs of literacy difficulties". <sup>18</sup> estimates that the resulting costs to the public purse arising from failure to master basic literacy skills in the primary school years are between £5,000 and £64,000 per child over a lifetime. On this basis £1 spent on Reading Recovery will save the public purse between £11 and £17 in the long term.
- 6.6 Even within the school system Reading Recovery more than pays for itself. The cost of providing Reading Recovery is in the order of £2,600 per child. The average cost to a primary school of providing special needs and behaviour support to a child entering Key Stage 2 at the age of seven with reading difficulties is £2,400 over the four years until the child leaves the primary phase. The average cost to a secondary school of providing special needs, behaviour and truancy support to a child entering Key Stage 3 at the age of 11 with reading difficulties is £3,800 over the five years to age 16.
- 6.7 It may also be tempting to let the market decide what interventions to provide to children with reading difficulties. In theory this is an excellent solution—provide school with the evidence and they will choose effective interventions. In practice, this begs the question of "Whose evidence"? In this response we have sought to demonstrate that truly objective evidence is hard to come by, that different reviewers come to different conclusions, from the same evidence base. We would also contend that all the evidence we have so far (see Appendix 1) suggests that schools are likely to choose low-cost teaching assistant-led interventions that have their place but will not meet the needs of the very lowest attaining children. It will also be important to consider the supply-side: where will schools get training and ongoing quality assurance from? One-off training typically leads to great initial enthusiasm and good results but then people revert to their default mode and end up delivering an intervention quite different from that devised by the programme originators. Any programme put forward for schools to draw down will need to demonstrate that it has an infrastructure capable of ensuring ongoing quality.
- 6.8 It may well be that further research will identify interventions as effective as Reading Recovery. It would be useful, for example, to trial methods based on phonics only, delivered on a daily one to one basis with the same level of intensity as Reading Recovery. Group interventions have already been extensively trialled and, in the view of most researchers, fail to deliver the same level of impact as one-to-one teaching, but it would be useful to re-run this mostly US research in a UK context. It may also be useful to further trial teaching-assistant led interventions, although in our view there are real issues here about placing the

<sup>18</sup> Every Child a Chance Trust (2009) The long term costs of; literacy difficulties (2nd edn) London: Every Child a Chance Trust.

hardest-to-teach children with the least rather than most qualified adults—particularly in disadvantaged areas, where schools do not find it easy to recruit teaching assistants with the educational levels that teaching assistants often have in more advantaged areas.

- 6.9 Whilst all this further research is undertaken, however, there are still large numbers of children failing to learn to read and write in our education system. Current evidence from Every Child a Reader shows that it is tackling this problem reliably and effectively. In 2008-09, 9,610 children received Reading Recovery through the programme. They made reading age gains of 21 months in five months (40 hours of teaching in daily lessons)—over four times the normal rate of progress. 78% of the children who finished their series of Reading Recovery lessons reached average or above average levels for their age. The programme almost doubled in scale between 2007-08 and 2008-09 but still maintained its excellent results and even improved on these. Overall Key Stage 1 standards in schools involved rose faster than the national average.
- 6.10 These are solid, reliable results. The long-term return on the government's investment in Every Child a Reader in 2008-09 is likely to be in the order of £23 million to £0.3 billion. Until such time as we have evidence for alternative programmes that are equally effective and equally cost-effective, we would argue that there should be continued support for the national Every Child a Reader scheme.

October 2009

#### Supplementary memorandum submitted by the Every Child a Chance Trust (LI 14a)

#### 1. Introduction

- 1.1 This submission is from the Every Child a Chance Trust, a charity which aims to unlock the educational potential of socially disadvantaged children through the development and promotion of evidence based, early intervention programmes. The charity was initiated by the KPMG Foundation and is funded by a coalition of business partners and charitable trusts. It is a successor body to the KPMG-led coalition that set up the Every Child a Reader 2005-08 pilot initiative to tackle the problem of a static 6% of children (35,000 a year) entering secondary school without even the most basic skills in reading and writing (below National Curriculum Level 3—that is, with literacy skills at or below the level of the average seven year old).
- 1.2 In 2008 the Trust provided evidence to Sir Jim Rose's dyslexia review. This submission is based on that evidence.

### 2. TEACHING DYSLEXIC CHILDREN TO READ

- 2.1 An issue we sought to answer in our evidence to the Rose dyslexia review was whether Every Child a Reader works for dyslexic children.
- 2.2 We summarised evidence from the evaluation of Every Child a Reader commissioned by the KPMG Foundation from the Institute of Education. This showed children receiving Reading Recovery making, on average, 20 months progress in word reading age over a year compared to 7 months in the control group receiving a range of other interventions. At follow-up one year later, children who had received Reading Recovery were still doing as well as their chronological age band. They had an average reading age of 7 years 9 months compared to 6 years 9 months in the comparison group. Their superior performance was evident on a wide range of tests—word recognition, phonics, reading comprehension, spelling and grammar. The children who had been involved in Reading Recovery did better than the national average for all children (across the whole ability range) in their end-of-key-stage National Curriculum assessments. 86% of children who had received Reading Recovery achieved the expected level for their age (Level 2+) in Reading, compared to 84% of all children nationally. 77% achieved Level2B+ compared to the national 71%. In Writing, 83% of children who had received Reading Recovery achieved the expected level for their age compared to 80% of all children nationally.
- 2.3 The children involved in this evaluation were selected at the start of the study as the very lowest achieving children in Year 1 classes. While there will be many reasons for their literacy difficulties, it is inconceivable that this lowest achieving group would not include large numbers of dyslexic children. Dyslexia affects between 6 and 10% of the population, according to British Dyslexia Association information—and 20% or more are "at risk" of dyslexia (if a very wide-ranging definition is used) according to a recent No to Failure report. Clearly, any population of very poor readers, such as those who receive Reading Recovery, must by definition include a very much higher proportion of dyslexic learners than
- 2.4 Data from three years of Every Child a Reader, and from many more years of Reading Recovery UK annual monitoring reports, consistently shows that eight out of 10 children receiving Reading Recovery are returned to average literacy levels for their age after around 40 hours of one to one teaching, with the remaining two out of 10 ("referred" children) making twice the normal rate of progress (nine months progress in reading age over four to five months teaching). Given that a high proportion of those taught are bound to be dyslexic, the conclusion can only be that Reading Recovery works, and works well, for dyslexic children.

2.6 The following case studies, written by their teachers, describe typical children in Reading Recovery.

#### James

James is a quiet, hard-working little boy who always does his best, but he just couldn't seem to make any progress with his reading and writing in his Reception year and this continued into Year 1.

His older sister has a diagnosis from an Educational Psychologist to say that she is dyslexic and has struggled all the way through primary school, making minimal progress. James showed all the signs of going the same way.

James was born with a cleft lip that was corrected when he was a baby, but he is still receiving speech therapy and finds it difficult to make some sounds as well as having immature language.

James began Reading Recovery in March and at first made slow progress. His mum was very supportive, coming to observe a lesson and doing his homework with him every night. One day while reading, James made an amazing discovery, that "my" is the same as that one on the other page!" We then looked for "my" on every page and in lots of books. He was thrilled to find it was the same everywhere. From that point James started to move forward with confidence and has continued to make good progress. He is now reading simple stories and writing all the time. His class teachers see him as a different child in the classroom, not just in literacy lessons but also in his whole attitude to learning.

A few days ago James had a speech therapy review and his therapist was surprised at his progress. He had made good progress with sound production but his use of language had risen from the bottom 3% to average levels. James is a much more talkative and confident little boy, bouncing into his lesson each day already knowing what he wants to write about.

It may well be that James is dyslexic like his sister but we don't think it's going to stop him learning to read and write, thanks to *Every Child A Reader* and Reading Recovery.

#### Vincent

Vincent scored very inadequately in initial Reading Recovery evaluations. He could only read and write his name and the word "I" after nearly two years at school. Vincent lives with his mother who works (visits his father) and attends an after school club, thereafter is tired when he eventually gets home. His mother did not support his learning during his reception year saying "he should just be playing".

Vincent has a very poor memory and general knowledge, eg did not know what a calf, foal, lamb, duckling or chick was. He also has huge listening and focusing problems. At the beginning of term his mother told me that his father is dyslexic and had not learnt to read at school. His mother and father are now supporting him consistently. His mother has been to his Reading Recovery lesson in order to be able to support him further.

Initially Vincent had to learn to focus when reading and writing. He then succeeded in learning all his sounds; establishing left to right directionality, knowing when he had read something incorrectly ("that doesn't make sense") and attempting to self correct. He still had to say the sounds in even a simple word like "i-t" in order to read the word correctly, which made it very slow for him. He could be reading about for example a "hare" and for an entire book for weeks and then change it to "rabbit" on the final page! These factors all impacted on the speed of his progress.

After 20 weeks of daily Reading Recovery lessons, however, Vincent has succeeded in catching up with his classmates. His mother is delighted that he has learned to read successfully. For the first time his class teacher says that he has become enthusiastic about his school work.

- 2.7 Observation of Reading Recovery lessons by the Every Child a Chance Trust Director (previously a principal educational psychologist, with many years of experience in assessing children for dyslexia, including providing assessments for the then Dyslexia Institute) show that children exhibit familiar dyslexic patterns of persisting b/d confusion, holistic rather than left-right processing (for example, was-saw confusions), confusion of similar sounds such as e/i, omission of word endings such as -ed, and weak short term memory.
- 2.8 It is important to note that the children who receive Reading Recovery have a complex profile. Many have very poor home support for learning. Some have poor attendance. Some have social, emotional and behavioural difficulties resulting from trauma or poor parenting. Some have ADHD, Down's syndrome, a history of hearing loss, or general "moderate learning difficulties" (MLD). Many are EAL learners. In some cases the cause of their literacy problems may be one or more of these factors, not dyslexia. It is our view,

however, that in many, case these additional factors interact with the phonological awareness problems that characterise dyslexia. The children are both dyslexic but also at the same time challenged by a range of additional factors that impede their learning.

2.9 Evidence on the impact of other less intensive "layered" interventions used in Every Child a Reader is not as comprehensive as that for Reading Recovery, but still substantial. The original version of the Primary Strategy's Early Literacy Support has been researched by Peter Hatcher at the University of York, as has Reading Intervention and these interventions have been shown to be effective for children who have made a start in reading and are not in the very hardest-to-teach group. Evidence of impact of the Better Reading Partnership scheme, the Fischer Family Trust Wave 3 intervention and Catch Up Literacy has been reviewed by Greg Brooks in his very recently updated research review, "What works for pupils with literacy difficulties?" All were classed as successful for the groups at which they are targeted. Again, it is highly unlikely that the significant numbers of children supported by these schemes did not include many who are dyslexic.

#### 3. Would Specialist Dyslexia Teaching Produce Better Results than Every Child a Reader?

- 3.1 Greg Brooks was unable in his exhaustive review to find any evidence for or against the impact of specialist dyslexia teaching (that is, teaching provided one to one and in very small groups by a teacher with a specialist dyslexia qualification). Little formal evaluation appears to have been done in this country. One evaluation of a scheme introduced by the Dyslexia Institute ("Spell It") did not show a significant impact for the school-based intervention, though there was evidence for the impact of a parent-provided teaching programme.
- 3.2 A recent report by Chris Singleton, published by the No to Failure charity, presents a different view. We do not, however, consider that this report met its remit in providing Ministers with a review of evidence on interventions for dyslexia. Such a review might be expected to evaluate:
  - evidence on the impact on children's progress of intervention from teachers with specialist dyslexia training—but only four studies in the review involve such teachers; and
  - evidence on the impact of the interventions widely used by specialist dyslexia organisations: Gillingham-Stillman, Alpha to Omega, the Hickey language training course, Units of Sound, the Dyslexia Institute Literacy Programme(DILP). Only one study was presented, the Spell-It study referred to above.
- 3.3 Evidence from studies involving specialist dyslexia-trained teachers or methods used under the aegis of dyslexia organisations, or involving children identified as dyslexic or (through screening) at risk of dyslexia are summarised in the table below.<sup>19</sup> The outcomes of these studies can be compared with those for Reading Recovery used with the very lowest attaining six year old children (irrespective of any presumed dyslexia)—Ratio Gain 4.2 (BAS Word Reading).

Study	Ratio gain reading accuracy	Ratio gain reading comprehension	Other or not stated whether accuracy or comprehension
Thomson 1989, Hornsby and Farrer 1990			"Make progress in the order of 18 to 24 months per year" (RG 1.5 to 2)
Hornsby and Miles 1980			RG 1.9 for reading and spelling
Thomson 2003	1.53 and 2.0	1.33	Spelling 1.63
Rack and Walker 1994			Reading 1.0
Rack and Hatcher 2002 Spell It study			Reading 1.2
Study of 12 dyslexic children in an independent specialist school—Phonographix	4.5		
Lore (2010)—Phonographix			4.1
MTSR—a methodology specifically devised for dyslexic children—reviewed by Greg Brooks			Reading RGs ranging from 1.6 to 4.5 Spelling RGs ranging from -3.6 to 13.4

<sup>19</sup> A ratio gain represents the ratio of gain in months in reading age to months of intervention. Greg Brooks categorises ratio gains as follows:

RG of 4 or above—remarkable impact

RG of between 3 and 4: substantial impact

RG between 2 and 3: useful impact

RG of between 1.4 and 2: modest impact

RG of 1.0: exactly standard progress—one month's progress for every month the child grows older.

Study	Ratio gain reading accuracy	Ratio gain reading comprehension	Other or not stated whether accuracy or comprehension
Whiteley (2007) children identified as at risk of dyslexia using DEST screening			40% "benefitted" from a group systematic phonological training (25 hours, 15 weeks) scheme, but 60% made no progress or declined further. After further 15 weeks of one to one teaching the percentage benefitting rose to 66%

- 3.4 The argument is made in Singleton's review is that as dyslexic children, without intervention, make very much less than normal progress, ratio gains of the order reported represent good impact. However the research literature overwhelmingly shows that this very much slower rate of progress applies to all poor readers. Brooks reviews a large number of studies with such poor readers that show ratio gains of four and above.
- 3.5 It would also be expected that Singleton's review would evidence on the progress made by children identified as being dyslexic, but very few of the studies review meet this criterion as the author reports a dearth of studies of this nature. Instead the review is about what works for children with reading difficulties, and thus repeats that carried out by Greg Brooks for the DCSF in 2007. The only difference is that the Singleton review includes of non-UK studies, but at the same time is very much less comprehensive as it draws from Brooks' review only those studies which used phonologically based interventions, omitting those of a varied and different nature which produced effect sizes or ratio gains just as high (for example, Paired Reading (RG 4.6 comprehension), Catch Up literacy (RG 4.6 comprehension), Better Reading Partnership (RG 7.2 accuracy 9.2 comprehension), Dennis Lawrence's self-esteem based approaches, Inference Training (RG 4.3 accuracy, 17.4 comprehension), Early Literacy Support (effect size equal to a phonologically based comparison programme).
- 3.6 The rationale for the omission of studies that were not phonologically based is stated to be that the fundamental problem experienced by dyslexic children is acquisition of phonological decoding skills. This seems as logical as saying that because the fundamental problem with reading experienced by visually impaired children is poor vision, only interventions based on visual methods will be useful. The task of any scientific research in reading is to identify what methods work for children with literacy difficulties, not to pre-suppose what those methods will be.
- 3.7 Given the current lack of any robust evidence on specialist dyslexia teaching, the view we expressed to the Rose dyslexia review was that it would be inappropriate and unethical at the present time to offer children such teaching instead of Reading Recovery, or indeed instead of other interventions reviewed by Greg Brooks for which there is already an evidence base.

#### 4. THE RELATIONSHIP BETWEEN READING RECOVERY AND SPECIALIST DYSLEXIA TEACHING

- 4.1 To us, it seems that Reading Recovery embodies many of the features that dyslexia experts would want to see offered to dyslexic learners:
  - use of a highly trained specialist teacher;
  - multisensory learning—as an example, tracing letters in a sand tray, teaching reading through writing and *vice versa*;
  - techniques to help children analyse the phonemes in a word;
  - rigorous teaching of phonics;
  - cumulative teaching, with teaching points from one lesson or one part of a lesson revisited repeatedly;
  - overlearning—new learning taken to fluency;
  - teaching children syllabification/chunking and
  - an emphasis on metacognition—making the child aware of strategies they are using successfully, so that they can generalise them to new situations and texts.
- 4.2 What is different in Reading Recovery, however, is that whilst phonics is taught rigorously and cumulatively it is not taught in a set sequence. The grapheme-phoneme links that are initially taught are chosen to be of high salience for the child (for example, occurring within the child's name, or in book with which they are familiar and enjoy reading). Another difference may be the skill of Reading Recovery teachers in finding ways around a child's profound phonological awareness difficulties, and building from strengths to weaknesses (from the known to the unknown) rather than adopting a deficit model.

- 5. What else do Dyslexic Children Need, Over and Above Access to Every Child a Reader?
- 5.1 We emphasised to the Rose dyslexia review that Every Child a Reader is not the only solution to dyslexia. The programme:
  - largely applies to Year 1 and 2 children;
  - only applies to children who cannot read in this age group; this would exclude many dyslexic children who do learn to read reasonably well but whose dyslexia manifests itself in other ways, notably spelling:
  - leaves 15% of those who have received Reading Recovery who have made an average reading age gain of nine months in four to five months' teaching, but not caught up with their peers and so will require further help; and
  - does not address the mathematical difficulties that often characterise dyslexia, or the need for ongoing help with spelling, organisational and study skills.
- 5.2 Dyslexia, moreover, does not go away when children become competent readers and writers. It represents a lifelong difference in the way that individuals think and learn, and as such demands appropriate curriculum access arrangements throughout their education.
- 5.3 We take the view that dyslexia is a learning difference that only becomes a disability if we fail to adapt the way we teach and the way we organise our classrooms to accommodate the learning styles of children with diverse needs. We have seen at first hand the misery experienced by children whose teachers have not recognised their dyslexia or not responded appropriately to their needs, and agree wholeheartedly with the dyslexia organisations that these issues need to be tackled. Schools need to have effective approaches to dyslexia that include:
  - awareness level training for all class and subject teachers and teaching assistants (such as that universally available to schools through the National Strategies Inclusion Development Programme, which was recently developed in partnership with leading independent dyslexia organisations); and
  - access to advice from specialist knowledge of dyslexia who can help class and subject teachers differentiate their teaching and create dyslexia friendly classrooms.
- 5.4 Schools also, however, need to make sure that they tackle the core difficulty for the majority of dyslexic children—difficulty in learning to read—and that they tackle this early on in a child's career before the effects of anxiety and frustration set in and remediation becomes more difficult. Our view is that Every Child a Reader provides schools with a well evidenced means of achieving this goal.
- 5.5 Importantly, it offers a route which avoids a policy that provides something at age six to one group of children that is different from that provided to another group. In the past, some schools and local authorities used to provide a two-tier service for children with literacy difficulties—one for sheep (dyslexics) and one for goats (what psychologists have called "garden variety" poor readers). Authorities which ran these services (a dyslexia teaching service and a general learning difficulties service) put vast amounts of time and money into deciding which child merited which service—until research was published which showed there was no benefit in separating sheep and goats as the same teaching approaches worked for garden variety and dyslexic poor readers, all of whom appeared to share the same basic deficit in phonological processing.
  - 5.5 For this reason, we asked the Rose dyslexia review to consider whether it wanted to recommend:
    - a two tier system that would inevitably be bureaucratic and expensive to administer, or
    - a universal effective provision at age six for all poor readers, that has shown it can get 86% of them to Level 2 or above in Reading at the end of Key Stage 1, compared to the national figure of 84% for all children.
- 5.6 Government currently seems to have chosen the first option. We believe this decision was based on good evidence. Government has also made provision for training specialist dyslexia teachers shared between schools, to provide advice on how to make the curriculum accessible for dyslexic children and to work directly with children who fall outside the remit of Every Child a Reader. It will be useful to see research commissioned to evaluate the impact of this work

October 2009

#### Memorandum submitted by Professor Robert Slavin (LI 32)

#### WHAT WORKS FOR STRUGGLING READERS?

Submitted by Professor Robert Slavin, Institute for Effective Education, University of York

The full report, Slavin, RE, Lake, C, Davis, S, and Madden, N, (2009), Effective Programs for Struggling Readers: A Best Evidence Synthesis, is available on the Best Evidence Encyclopaedia website www.bestevidence.org.uk

#### BACKGROUND

- 1. The importance of getting children off to a good start in reading cannot be overstated. Success in primary school is virtually synonymous with success in reading, and those children who lack the ability to read as they move to secondary education inevitably face problems in every subject as a result.
- 2. The past 25 years have seen extraordinary developments in research, policy, and practice relating to programmes that help children who are struggling to learn to read. This has created a sense of optimism that these children can quickly be brought back into the mainstream. However, although many strategies now exist for these pupils it has been difficult for educators and policy makers to access clear and useful information about the strength of evidence supporting each programme and practice.

#### A REVIEW OF THE EVIDENCE

- 3. A new review of the programmes available for struggling readers has shown that there is much for schools to be positive about, as a number of approaches have evidence of effectiveness. This is good news in particular for schools that have significant numbers of pupils who need extra help, but limited resources with which to help them.
- 4. The review, Effective Programs for Struggling Readers: A Best Evidence Synthesis (2009), considered hundreds of existing studies, with 96 meeting the rigorous inclusion standards. The aim was to evaluate the evidence of effectiveness of programmes designed to help primary school children struggling to learn to read, and summarise it for educators and policy makers. It also sought to address wider questions, for example the long-term impacts of early intervention.

#### FINDINGS AND IMPLICATIONS

- 5. One-to-one tutoring by trained teachers and reading specialists is very effective. Children who have failed to respond in normal lessons or to proven small-group tutorials should receive one-to-one tutoring using proven models before long-term special education services are considered. An emphasis on phonics greatly improves tutoring outcomes for low-achieving pupils.
- 6. Reading Recovery, a widely used one-to-one tutoring approach, has had less positive effects than more phonetic programmes. Two UK studies found strong positive effects after one year, but one of the studies followed pupils to Year 5 and found that these effects did not last.
- 7. One-to-one tutoring by teaching assistants is less effective than by teachers, but nevertheless poses a real challenge to the idea that only certified teachers can be effective tutors. The findings imply that schools might use a mix of teachers and teaching assistants as tutors, using the qualified teachers as leaders and to work with the lowest-achieving children.
- 8. Small group tutorials can be effective, but are not as effective as one-to-one tutoring by teachers or teaching assistants. They may be cost-effective, however, for pupils with mild reading difficulties.
- 9. Co-operative learning whole-class models can significantly enhance the learning of low achievers. Cooperative learning is much less expensive than supplemental small-group or tutoring services, and it benefits other pupils in the class.
- 10. Success for All, which combines cooperative learning, one-to-one tutoring, and other elements in a whole-school reform model, has the most positive outcomes of all programmes, especially in the long term. A recent UK study found positive effects from this approach.
- 11. Relatively brief tutoring in the early years of school is not enough to ensure long term success. The research showed that tutoring in the early years of school followed by co-operative learning throughout primary school had the best long-term outcomes for low-achieving pupils.
- 12. Programmes that provide extensive professional development to teachers in proven models are more effective than programmes that provide technology, alternative curricula, or other interventions that do not change daily teaching practices.
  - 13. Traditional IT programmes have little impact on reading achievement.

#### CONCLUSION

14. The message of the review is optimistic. There are many proven and promising approaches for struggling readers, including alternative approaches to those currently supported by government. We have both effective and cost-effective tools at hand. While more research is always needed, we already know enough to make a substantial difference in the reading performance of under-achieving children. As schools are provided with greater flexibility to choose their strategy for children with reading difficulties, it is vital that objective and reliable evidence is available to inform these choices.

October 2009

Witnesses: Professor Bob Slavin, Director, Institute for Effective Education, University of York, Director, Centre for Research and Reform in Education, Johns Hopkins University, Jean Gross, Director, Every Child a Chance Trust, and Professor Greg Brooks, Research Director, Sheffield arm of the National Research and Development Centre, University of Sheffield, gave evidence.

Q1 Chairman: Could I welcome everyone to this session in part of our work as a Committee looking at the evidence behind various elements of government policy. That, principally, is what we are trying to get at this morning and this particular session is really looking at the evidence behind literacy interventions. The Government has spent a very significant amount of money trying to improve literacy standards in English schools and we are anxious to look at the evidence behind that. On our first panel is Professor Bob Slavin—welcome to you, Professor Slavin—the Director of the Institute for Effective Education at the University of York and Director of the Centre for Research and Reform in Education at the Johns Hopkins University, Jean Gross, the Director of Every Child a Chance Trustwelcome to vou—and Professor Greg Brooks, the Research Director of the Sheffield arm of the National Research and Development Centre at the University of Sheffield. If you three do not know the answers, then we are lost! I wonder if I could start with you first, Professor Slavin. Early literacy interventions, we are told, are so important for children who are struggling to learn to read. Is that so and why?

Professor Slavin: Just as background, we did a huge synthesis of research on programmes for struggling readers and looked at every imaginable kind of thing that people have proposed and at studies done in all different countries, and what was remarkable was the degree to which there is a variety of approaches that make a quite substantial difference in the reading of young children. I think it is absolutely clear that a very large proportion of children who are struggling to learn to read can be successful, and perhaps the most important conclusion that I would take away from all of this is that we can argue about what are the most effective ways, what are the most cost-effective ways to bring about this result, but it is quite clear that we can get much, much better results in reading for children who are struggling in reading than we do in ordinary circumstances.

Q2 Chairman: When you say you looked at all the evidence that was available, what does that mean? **Professor Slavin:** We did what we call a best evidence synthesis, which is a form of something called metaanalysis, where we applied a consistent set of standards to all of the studies. There had to be a comparison of an experimental and a control group over at least 12 weeks, with measures that were not inherent to the treatment—well matched and some other technical requirements—and then computed what is called an effect size, which is the percent of a standard deviation by which the experimental group exceeded the control group on whatever measures were being used. We found 98 studies that met our criteria across all different kinds of interventions and then put them into categories to look at what were the average effects of these different programmes.

Q3 Chairman: So, in your view, the evidence is there to say early intervention works?

Professor Slavin: I think without any doubt.

**O4 Chairman:** Jean, do you support that? Jean Gross: Yes, I do. I support that completely.

**Q5 Chairman:** Professor Brooks?

Professor Brooks: Yes, it is better if they come in early, when children are first identified as struggling, but there are also programmes for those who are picked up rather later.

Q6 Chairman: Do you feel, in terms of the Government's policy in this area, that they did take into account that evidence?

Professor Brooks: I am sorry; did you say they need to or they do?

Q7 Chairman: Do you feel that they did do; that they took into account the available evidence?

Professor Brooks: Not all of it, in my view. There are some programmes which have been researched on quite a detailed scale several times, there are others for which there is promising evidence that, in my view, would justify investigating those programmes in more detail, some of which, I think, are struggling to get heard and to get funding for more detailed investigations.

Q8 Chairman: Do you think, for instance, that phonics is the best way to teach children to read; that that evidence is there?

**Professor Brooks:** That would be to put it too simply. I think the evidence on initial teaching of reading and spelling is that systematic teaching of phonics is essential but it needs to be part of a broad and rich language and literacy curriculum to work best.

**Q9 Chairman:** Jean, do you feel phonics is essential in terms of teaching children to read?

Jean Gross: Yes. All the international evidence shows that it is essential in teaching children to read. I would agree with Greg also and, I think, also Bob. Bob's review shows it needs to be embedded in applying that phonic knowledge into reading books in a rich curriculum where you are also developing your oral language skills. Just phonics alone will not meet the wide reading needs of children, but it is the bedrock.

Q10 Chairman: Would you explain to me the difference between phonics and synthetic phonics? **Professor Brooks:** Synthetic phonics is one variety of that. Phonics is teaching based on the relationships between the sounds of the spoken language and the letters and letter combinations of the written language. Synthetic phonics is a variety in which children are taught to sound out the letters to produce phonemes (sounds) and then to blend them together to produce a whole word sound for reading. The other major form of phonics that has been given the most attention is called analytic phonics, and in that, in its strict form, sounding out is banned and children are taught to try to infer the relationship between letters and sounds by studying families of words.

**Q11** Chairman: Professor Slavin, in terms of phonics, you would also accept that it is essential, in terms of teaching children to read, that you decode using phonics?

**Professor Slavin:** Yes, and I would fully agree that of the forms of phonics synthetic phonics is the one that has the strongest support.

Q12 Chairman: Is there any evidence to support that?

**Professor Slavin:** Yes, there is great deal of evidence of all different kinds from laboratory studies to multi-year investigations. I think in the world of reading that is virtually a settled issue at this point.

Q13 Chairman: What worries us as a Committee is what does "evidence" mean. In terms of evidence most scientists would say you have to have controlled trials, so that you actually compare two different approaches, and you do that in a systematic way. Do we have that evidence, in terms of the use of phonics? What happens if children do not encounter phonics at all?

**Professor Slavin:** There are many children who learn to read regardless of the reading approach.

#### Q14 Chairman: Precisely.

**Professor Slavin:** So you cannot say that phonics is essential for every child, or systematic phonics, taught in school. There are children who do infer the phonetic principle or who are taught at home, or God knows how they learn it, but there is a very large group (let us say, a large minority) of children for whom phonics really is make or break, for whom if they have systematic phonics they will be successful readers, they will never become struggling readers,

they will not come to the attention of the authorities in any way, and without it they are much more likely to run into trouble.

O15 Chairman: Jean, if you have children who are

struggling, particularly in the early years of primary school, Key Stage 1, and phonics is not working, perhaps it is not working because they have got dyslexia and, therefore, phonics does not make any great sense to them. Are there some children with, for instance, conditions like dyslexia (and we will come on to dyslexia as a particular problem in the future) who cannot read because of other conditions and, therefore, phonics is pretty useless to them? **Jean Gross:** The core cognitive difficulty in the brain for children who struggle with reading, all research shows, is a difficulty in hearing and separating the sounds of spoken words in your brain (not in your ears). It is breaking words into sounds and blending them back together. We all agree that that is the core difficulty for children who struggle. There are other difficulties in their lives, but that is the core difficulty. There is perhaps a difference of view of whether that means that you should continue to do more phonological awareness work to attack the difficulty or whether you should go round it and do other

methods. My own reading of the research is that in the end you have got to get children phonologically skilled if they are going to be able to spell lifelong and be able to continue to develop their reading. So you have to get there, but, I think, for some children you do have to go down a little bit of a circuitous route to start with. You might teach phonics in different ways.

**Q16 Chairman:** That is the skill of the teacher.

Jean Gross: That is the skill of the teacher. You might have to teach the children other things such as to visually recognise the difference between letters. I think what I would say from the evidence is that there is not one programme or method that will work for every child; you do need to tailor it for the lowest achieving children with the greatest difficulties.

**Q17** Chairman: You all appear to agree, and I would like an affirmative answer, that early intervention and the use of phonics, in whatever form, is really important to developing good readers and the Government is right to concentrate on those issues. *Jean Gross:* Yes.

Professor Brooks: Yes.
Professor Slavin: Yes.

Chairman: All three said, "Yes." Over to you, Tim.

Q18 Mr Boswell: Thank you. Perhaps I can preface my remarks by saying that I had for some time ministerial responsibility for adult literacy at a time when my wife was actually tutoring the subject, so I took a certain interest in that end particularly. I am interested really in the evidence base for literacy intervention. Professor Brooks, I know you did a study some two years ago, a review of all the available literature. Perhaps I might lead with you but invite the others to comment as well. I suppose, in a way, we are looking for a kind of platonic ideal

for a literacy study which would convince everyone that this is what we want to do, and I really would like to ask you first if there have been any studies that meet those rather platonic criteria for an ideal literacy intervention study?

Professor Brooks: Are we talking about initial teaching or are we talking interventions for children who do not get it first time?

Q19 Mr Boswell: I have not differentiated it. It might be useful, therefore, if you could tell the Committee just a little bit about both.

Professor Brooks: On the evidence for the initial teaching of reading and spelling there is a set of a dozen or so randomised control trials that show pretty clearly that systematic attention to phonics at that stage enables many children to make better progress than if they do not get systematic phonics at that stage.

Q20 Mr Boswell: That, in fact, informs the common view vou have expressed.

Professor Brooks: We have said that to an extent. If we are then talking about children who do not get it the first time and, therefore, need to have extra attention at around about the age of six or seven, the evidence there is that there is a range of programmes that will help. As you imply, they are summarised in this door stop of a report of mine. There is good evidence that many of those that are within that set which are phonologically based—in other words they have an element of phonics in them or they have a strong element phonic in them-work very well. There are others that have a broader approach, like Reading Recovery. Jean will be able to speak in more detail about that. That has some very strong evidence behind it as well. The essential thing at that stage, I think, is to try and match the intervention to the child and his or her needs, and that requires very well trained teachers who know a range of interventions, I think, and know how to tailor the particular intervention to the child.

**O21 Mr Boswell:** That is helpful. Given that you have just said, in effect, that there is a huge responsibility on the individual teacher knowing the individual pupil and maybe trying things out. Clearly, if you are looking at a literacy intervention trial (and we are interested in the evidence base for that), you are looking at an aggregated number or series of approaches, and if we can bring it to what you might call the second wave, although I am not using that technically—those who had not got it first time, as you called them-what are the main problems with trials? We are asking for evidence. It is social sciences; it is not narrowly definable physical sciences. Is it the control groups? Is it assessment methods or data? Where are the problems in tying down what works best?

**Professor Brooks:** In my view, the evidence base for that second wave type intervention is less strong than it is for initial teaching. There are precious few randomised control trials in the field, at least in this country. Bob will know better about the evidence from the rest of the world, but when I was doing this study, out of the 121 pieces of evidence that I was able to amass, only nine were randomised control trials, and some of those were so small as to be hardly worth carrying out.

Q22 Mr Boswell: Does that disturb you, in the sense that we really do not know what we are claiming we know?

**Professor Brooks:** We could do with much stronger evidence at that stage for quite a few of the interventions, yes.

Q23 Mr Boswell: You are showing assent to that, are you, Professor Slavin?

Professor Slavin: Yes. We found just the same pattern, in the sense that there were very few even quasi experimental (which means matched) studies that took place in the UK, but if you looked at the whole world literature, most of which is US, there is still not as much as one might like but quite a robust set of evidence about what works for the struggling readers.

Mr Boswell: Thank you.

**Chairman:** Can we just ask why?

**Q24** Mr Boswell: Do you mean why do these trials not exist or why could they not be conducted?

Professor Slavin: They absolutely could be conducted. I think that there is a lack of funding for that kind of research in the UK and, having worked in both places, I think quite a striking difference in terms of the amount of resource that is available for doing these large scale randomised experiments, but they can be done. We have done them in the UK as well.

Jean Gross: I have been involved in two programmes, Every Child a Reader and Every Child Counts, which is trying to do the same thing for numeracy. We have learned, and I think the Government is more willing to commit resource to randomised control trials. For Every Child a Reader we had a quasi experimental matched group study. Looking back, I wish at the time we had been able to find money to do a randomised control trial, but Every Child Counts is having a £250,000 government-funded randomised control trial, so I think things are moving on, but it is a lot of money, and if the recommendation in the system is that we want more randomised control trials, that is going to cost budgets at a time when budgets are tight.

Q25 Mr Boswell: In a sense you are saying that policy about early intervention proceeds in parallel with any systematic randomised control trial; it is not tied up before you start.

**Professor Brooks:** Things in education are rarely tied up before you start, but, yes, as I have already said, we could do with stronger evidence. I think it gets difficult to get money for randomised control trials because you need to have done various pilot studies beforehand to show that your intervention works, at

least for pilot groups, and that you need to do a large field trial before you commit the money to a very large and complicated expensive piece of research, at least expensive in educational terms, which might give you a null result in the end. That is always the risk.

Q26 Mr Boswell: You mean no outcome?

*Professor Brooks:* No, not no outcome. A null result is not no outcome. What I mean is a finding of no difference between the conditions. That will disappoint some researchers. I actually like those because they are contributions to knowledge anyway.

**Q27 Mr Boswell:** Can I just shift to a slightly separate issue. We have already touched on dyslexia, but there are also developmental differences between children, as I know myself. They are not necessarily, as it were, pathological or educationally pathological; they may just be people that grow up faster. The NUT has expressed some concern in its evidence about the Government's concept of age appropriate expectations. How do we pick our way through that? Do you think we are paying enough attention to the importance of differential rates of development and does the Government's concept adequately take account of that difference?

**Professor Brooks:** Can I start with part of the answer to that? This sounds perilously close to the idea that there are some children who are late developers in literacy and that if you leave them alone they will catch up. I can tell you that contained in here is a lot of evidence that that is a myth. If you just leave children or leave them with the ordinary classroom curriculum, on the whole, they do not catch up, they need the interventions.

**Q28** Chairman: Is that because they start too early, Professor Brooks, in school?

**Professor Brooks:** Start school too early? Ah, now we are getting into highly contested territory.

**Q29 Chairman:** It is just following on from Tim Boswell's question really.

**Professor Brooks:** I agree. I think we induct children into formal school too young in this country. I think there is a case for having a much more play-based pre-school phase that would last from age three to age six in which there would be very little or no formal teaching of literacy and that would start at six. I think at that point most children would get it first time, as they do in other countries where they start at that age, or, indeed, slightly later, such as Finland, and it would not lead to larger numbers of children not getting it first time.

**Q30 Chairman:** That would save us a lot of money on Reading Recovery!

**Professor Brooks:** Well, not necessarily.

Jean Gross: If that was to happen, I think there needs to be some good research beforehand. One of the things I am struck by is the fact that, whilst you have a play-based curriculum for all children, those parents who are more affluent are very busy doing

magnetic letters on the fridge and reading to their children and actually will be teaching them to read at home, because you cannot stop them, whereas for those from disadvantaged homes that will not happen. There is a risk that just needs to be examined with evidence. Would a later start increase the gap between more affluent children and disadvantaged children?

**Chairman:** I am sorry I opened that up. My apologies. It was too good an opportunity.

**Mr Boswell:** That is helpful.

Q31 Dr Harris: Ms Gross, when you were asked about phonics you said "all the evidence". When you use a term like that, does that mean it is equivalent to the earth being round? There is no evidence out there that disagrees on phonics at all, or is that just a term you tend to use to say, "I think, the majority of evidence"?

**Jean Gross:** I think it means that research that does overviews of multiple studies, some of which might show "not", some of which might show "yes", some of which might show neither, but overall the conclusion from those high level analyses is that phonics is essential, so it is that level.

**Q32 Dr Harris:** So it is not all the evidence, is it? It is a review.

Jean Gross: Yes.

**Q33 Dr Harris:** A good review shows that there is good evidence, or the best evidence, or "it is convincing that". That is different from "all the evidence", is it not?

*Jean Gross:* Yes, it is different; so I apologise if that is incorrect.

**Q34 Dr Harris:** You also said "everyone agrees" and "all research" in another answer. Do you think it is wise to use terms like that, because people who disagree think that that is unfair, even if they recognise they are in the minority?

**Professor Brooks:** What tends to happen then is that the people who oppose the policy or the findings try to cherry-pick the bits that agree with their point of view and systematically ignore the weight of the evidence. What we are saying here is that the weight of evidence is in favour of phonics for all children at the start and for many of those who need early interventions.

**Q35 Dr Harris:** Would you all agree it is better to use terms like "the weight of evidence" rather than "all"? *Jean Gross:* I would agree. I apologise and correct what I said to "the weight of the evidence".

Q36 Graham Stringer: The Reading Recovery programme is the backbone of the Government's strategy with reading. I just want to ask a number of questions about how we got to it being the backbone, what the evidence was for that, and how it is assessed: because we have had some recent evidence saying that it is probably not the best strategy. First of all, if we can go back to your

previous answers, it was chosen after a pilot scheme which did not have a control group. That is right, is

Jean Gross: The process of choosing it, and I was involved in giving evidence to the Government that perhaps contributed to them choosing it from outside—I was not part of the Government; I am employed by the KPMG business—I believe, involved looking at existing international evidence. There was an awful lot about Reading Recovery before the 2005-08 Every Child a Reader pilot in England. So it was not that it was not starting from nothing. I believe they looked at that evidence—and I certainly supplied that evidence to them—and then, on top of that, they had two sources of evidence, one of which is what I would call management data, the data that is routinely gathered on an international database for every child who goes through Reading Recovery, with a teacher entering data at the beginning of their programme and a different teacher testing the child at the end of their programme and entering the data. So that is management data. The third element of evidence was a quasi experimental matched study, which Bob or Greg can comment on, which was not a randomised control trial but would be recognised, I believe, as a reasonable standard of evidence, the randomised control studies being absolutely the gold standard but quasi experimental being widely accepted in overviews of research as being includable and valuable.

Q37 Graham Stringer: So it would not be fair to characterise it, as some of the evidence we have had has characterised it, as you put more effort into teaching children to read so more of them lead to a higher standard and there is no control against other methods of teaching them to read?

Jean Gross: No, the study that the Government used was in relation to 21 London schools with Reading Recovery and 21 without. Those other 21 schools were using a range of other interventions for children aged six. They were doing things that schools normally do, programmes like Early Literacy Support and various other things; they were not doing nothing. They were compared with Reading Recovery, the groups were matched, and the effect size was large, using independent tests.

Q38 Graham Stringer: One of the points you made earlier in the evidence was the cost of randomised control groups. What is the cost of the Reading Recovery programme per child? It is pretty high, is

Jean Gross: £2,600 per child is the average cost (once) of providing it, and the cost of not providing it is £50,000 per child.

Q39 Graham Stringer: I understand the cost of illiteracy. The randomised control groups: you are saying a quarter of a million is not available here. That is 100 interventions. We are talking relatively small amounts of money.

Jean Gross: Yes.

**O40 Graham Stringer:** That just seems to contradict the evidence that you were giving earlier.

Jean Gross: I simply said that that money has been made available for Every Child Counts. If you multiply that for all the many things that would need to be researched in the education and children sphere, you are looking at a very big bill at a time of economic downturn. I am not saying it should not happen; I am merely posing that as a potential problem for any government.

Q41 Graham Stringer: Can you explain to the Committee how the Reading Recovery process is assessed and tested?

Jean Gross: At the start children are, first of all, put forward by their class teachers as being the very lowest achieving children in a school year one class. They are children who have made no progress in reading after a year, or more than year, at school. The data shows that in England the children entering Reading Recovery do not score on a standardised reading test at all; they are at the floor of the test; so they have a reading age well below five and they have had a year's, or more, instruction. So they are put forward as the bottom children. Teachers normally put forward eight to 12 children, and then they all have an individual assessment that includes the British Ability Scales word reading test—a test of single word reading—a test of letter knowledge, tests of how many words they can write. There are a number of different assessments. From that the very lowest achieving children are selected to have the teaching first, assuming that over the year the teacher will be able to teach four children at once. At any one time the teacher teaches four children. They are usually employed on a half-time basis to do this work. When they have finished with those children in year, they will take on another four children. So you start with the very lowest, with no exceptions. I think this is important. You do not rule out children because of any particular special needs, an issue at home or poor attendance. They start and then they are discharged from the programme when they have reached a certain book level, a level of difficulty of book, which gives you an indication that they are ready to be discharged, if you like. They are then given a repeat of the same test that they had at the beginning by a different teacher, a teacher who did not teach the child in Reading Recovery, and the results are then entered on an international database. So you get a gain in reading age, in months of gain of reading age, for every child and a number of other more technical measures.

Q42 Graham Stringer: Can I read you a criticism, again, in the written evidence we have had, of the assessment methods for Reading Recovery? It says, "It is very costly but Reading Recovery research is notorious for misrepresenting data. In a recent publication by the Institute of Education the same problem appears. Nearly half of the children from 145 strong RR tutoring group were dropped from the study at post-testing while the control group

remained in tact. Secondly, the RR group received individual tutoring; the control group got none. The published paper bears the hallmarks of a bona fide scientific journal until a closer inspection reveals it is published by Reading Recovery. No chance for an impartial peer review process here." That is pretty strong criticism when a great deal of money is being spent on a Reading Recovery programme. I think it is only fair to give you the chance to comment on it. Jean Gross: Certainly. May I come in first and perhaps, Greg, who was an impartial person on the steering group for that review, might also like to. Firstly, it is absolutely not true that children were dropped from the study. What happened is there were 147 children in the control group. That was in schools without Reading Recovery. In the schools with Reading Recovery there were 145 children of a similar level to the 147, but only 87 of those children had Reading Recovery because the others did not get to it in the year. There was not enough teaching resource for them to get it. They needed it but they did not get it. So what was looked at were the results of those 87 children with the matched 147 children in the control group. There is no question of dropping children—they had nothing—and their progress was also reported on. If you read the full study, the progress of those children who did not have Reading Recovery is also reported on, and what you have is the very big effect for the children who had Reading Recovery compared to the children in comparison schools, and the children who were in schools with Reading Recovery but did not themselves get Reading Recovery made an intermediate level of progress. So there was some knock-on effect by the presence of a Reading Recovery teacher in the school, which we assume to be because of the impact on the whole class and the teaching of literacy in the school. It is part of Every Child a Reader that the Reading Recovery teacher is meant to work with class teachers to help improve the quality of everyday teaching.

**Q43 Graham Stringer:** Is it true that there is no peer review process involved in this?

*Jean Gross:* There has been a published study of the first year of that which has been peer reviewed.

**Q44 Chairman:** By whom?

**Jean Gross:** I will let the Committee know the reference and I will let you know who peer reviewed it.<sup>2</sup>

**Professor Brooks:** I can vouch that the data are sound, that the rebuttal that Jean has just given of the criticisms you were reading is valid.

**Q45 Dr Harris:** Can I ask if you have ever heard of something called an "intention to treat analysis"? *Professor Brooks:* Yes.

**Q46 Dr Harris:** Does this study comply with that when you compare the 87 completers rather than the 145 people you were intending to be in the active group?

**Professor Brooks:** Ideally, you would have followed all 145 in the treatment group, the Reading Recovery group, until they had all completed their programme.

**Q47 Dr Harris:** In order to comply with the intention to treat analysis, which is, would you agree, required in medical research in order to pass peer review?

**Professor Brooks:** Then you would have had to allow for the fact that the children in the Reading Recovery group were receiving the post-test at different lengths of time after the pre-test, and that would have complicated it.

Q48 Dr Harris: I do not want to go into the detail of this; I just want to ask you the concept of the "intention to treat analysis". My understanding (and I am not a full-timer like you, so feel free to correct me if I am wrong) is that you will just get demolished if you try and enter a medical clinical study which only looks at completers and does not do an analysis of those who were selected for the trial at the outset. That is called an analysis of those who you intend to treat rather than the completers.

**Q49 Dr Harris:** Because I think they know that that is a huge biasing factor. So any research that does not look at the people who enter into the study has to have a huge flag at the very beginning, which I did not hear—perhaps I heard a defence of it—saying that this cannot be seen as robust under those terms. Am I wrong?

Professor Brooks: Yes.

**Professor Brooks:** You are not wrong if you are talking about randomised control trials which sign up to the full rigour of the agreed protocols for carrying out randomised control trials. This was not a randomised control trial, it was a matched group quasi experiment, and I would say that the analysis that was carried out on the data from that study was appropriate to the type of study.

**Q50 Dr Harris:** One could argue that, given it is not a randomised control trial, it is even more important that you do it right. I just wanted to pick up on something that Ms Gross said, firstly, and this is not meant to be hostile, I just want to clarify it for our records, and this is good practice. Ms Gross, because of the work that you do, would it be fair to say that you have an interest in these matters and that, if you were published, you would say that you had that competing interest?

Jean Gross: I do have a competing interest; of course.

<sup>&</sup>lt;sup>1</sup> Ev 74, para 3

Note by witness: The research report was published in Literacy Teaching and Learning: An International Journal of Early Reading and Writing (ISSN 1538-6805). The report was read by Professor Bob Schwartz and Professor Roger Beard. It was blind reviewed by appropriately selected international members of the Editorial Review Board of the journal. As is customary, the names of blind reviewers were not made available to the authors. Feedback from the peer reviewers was responded to and approved.

Q51 Dr Harris: A separate question now. You mentioned that you thought that the cost of randomised control trials is not trivial, it is a significant amount of money, and that when money is tight (and money is always tight. I suppose) that is something to be borne in mind. Would you accept that when money is tight it is particularly important that it is not spent on things that do not work and, therefore, the ratio of good investment in research, £250,000, compared to the spending of tens of millions on a programme that may work but may not be the most cost-effective way of doing it is actually a better investment? If you are rich you do not really need to worry, do you?

Jean Gross: My personal view is that it is a good investment. I simply said it is something that a government has to weigh up, but the fact that we are doing this for Every Child Counts, I think, is an extremely positive thing and will give us the robust data. The "intention to treat analysis" will meet the absolute gold standard of this.

Q52 Dr Harris: Do any of you regret that there was not sufficient good quality evidence before tens of millions of pounds were spent on both a pilot, but I think that is fair enough, and then tens of millions of pounds on a roll-out?

Professor Brooks: It strikes me as a "Have you stopped beating your wife?" question.

#### Q53 Dr Harris: Or a statement of the obvious. Professor Brooks: Yes.

Chairman: I am sorry; can I intervene here? I do not think it is a case of "stop beating the wife". We are talking here about a standard of evidence gathering which is significantly lower than you would find in any other area, particularly in terms of the physical sciences or medicine, and I think a genuine question for this Committee to ask is why is it right to actually spend millions and millions of pounds without the evidence base which would be required as absolutely necessary in other branches of government policy? Mr Boswell: May I gloss that and say: what is the problem in doing so? Clearly it is the cost; clearly there may be a time factor. Is there something else we have overlooked?

Q54 Dr Harris: Professor Brooks, do you want to have a go at my question?

**Professor Brooks:** I am sorry; I think I am answering a slightly different one here. There are actually about four or five randomised control trials on Reading Recovery in the literature. They are all carried out in the United States. They show a reasonable effect size for that intervention over no intervention or no special treatment. To my knowledge, there are no, or hardly any, comparative studies of Reading Recovery against another treatment. I do know of one that was carried out in Rhode Island, but that was done so many years ago that today's Reading Recovery is significantly different from the variety that was used in that study. It would be wonderful if all educational programmes and interventions were based on randomised control trials that have been carried out before they were implemented. If that were the case, I think we would still be waiting to find out whether Egyptian hieroglyphs were superior to the alternative writing script that was in use in that country.

Q55 Dr Harris: So you are saying you could not have done a decent quality randomised control trial on this before it started, before it was rolled out, because it would take 3,000 years? I do not understand your last answer.

Professor Brooks: No.

Q56 Dr Harris: My question was do you think it would have been better-and it is not, "When did you stop beating your wife?"—to have done a randomised control trial investing £250,000 and only rolling out if that result was positive?

Professor Brooks: Yes, I agree, and, indeed, I argued for this when I was a member of the advisory group to the Every Child a Reader study, but by the time I was asked on to the committee the design was already set. So, yes, I would agree that the stronger the evidence that you can get before you roll out an intervention the better.

O57 Dr Harris: That is fair enough. Professor Slavin, do you have anything to comment on the question of whether the evidence from the United States on this is best for Reading Recovery and that there is no other gain in town on the evidence base? Professor Slavin: Our review found a number of randomised control trials just like the ones that you were asking for, a couple on Reading Recovery and numerous studies of other tutoring models, not only tutoring with certified teachers, but also tutoring with teaching assistants, small group instruction and then whole class interventions to try to improve outcomes for all children, and we found from these randomised and also high quality quasi experiments that there is a variety of things that work very well, that some of them work somewhat less well than one-to-one tutoring with qualified teachers but cost so much less that they are worth considering as alternatives for cost-effectiveness, such as the use in well-structured programmes of teaching assistants.

**O58 Dr Harris:** That is the study that I have got a reference to here—you mention it in your written submission to us (I do not like to use the term evidence for written submissions)—where you say that the overall weighted mean effect for 19 qualifying studies on Reading Recovery was plus .38; whereas on a range of others you found the 11 programmes—auditory studies of these discrimination, in depth, et cetera—had a weighted mesne effect size of plus 6.0.

Professor Slavin: Correct.

Q59 Dr Harris: Which implies to me, can you say, that that is 30 times-

Professor Slavin: No, it would not be six, it would be 0.6.

**Q60 Dr Harris:** It says 6.0 here?

**Professor Slavin:** That would be a misprint if it is there.

**Q61 Dr Harris:** So it is nearly double. *Professor Slavin:* Yes.

**Q62 Dr Harris:** If the data is sound. I do not understand, therefore, why, Professor Brooks, you gave the impression that Reading Recovery, from the American studies you mentioned, was ahead of the game. Do you contest this?

**Professor Brooks:** I did not say that. I said that there were several randomised control trials that had been carried out that showed that it does actually have a decent effect size. I was not commenting on comparisons with other programmes.

Q63 Dr Harris: I have got one more question. A Cambridge research group published a very expensive and detailed study which included the question of when it is best to start formal teaching, and that said that there was good evidence from international comparators to support starting formal teaching, regardless of what happens at home, in order to encourage socialisation and stuff in schools. The Hungarians, for example, are not so terrible. That was dismissed immediately by some politicians.

Professor Brooks: Yes.

**Q64 Dr Harris:** Do you think it is wise, if you are talking about evidence based policy, to dismiss it like that?

**Professor Brooks:** I refer to my answer of some minutes ago. I would prefer there to be a less formal start for children at five, and I think the international evidence supports that.

**Chairman:** I am sorry; I have got to move on at that point.

**Q65 Graham Stringer:** I have a quick point on the United States evidence. You say there is evidence from the United States in support of the Reading Recovery programme. Is it not the case that there was a letter from the top people in this area with 31 signatures on it sent to the US Congress urging them not to support Reading Recovery because they believed that the research showed that it had no effect and was very expensive?

**Professor Brooks:** I have read that letter. I think it had a valid point at the time when it was written. There has been more evidence coming since then that I think makes it legitimate to fund this programme, amongst others.

Jean Gross: May I simply comment that the US What Works Clearinghouse, which is its organisation for looking at evidence based practice, gave Reading Recovery it its top rating.

**Q66 Mr Cawsey:** Earlier on I think Jean said that the cost of Reading Recovery was £2,600 per child, which is expensive.

Jean Gross: Yes.

**Q67 Mr Cawsey:** You then compared that to £50,000 if you did nothing, but, of course, to a certain extent that is a false premise, because that implies those are your only two choices, whereas you could be doing something else.

Jean Gross: Okay.

**Q68** Mr Cawsey: I see in our briefing Professor Brooks reviewed, is it, 48 different kinds of reading interventions?

Jean Gross: Yes.

**Q69** Mr Cawsey: So I say, in a Jim Bowen *Bullseye* way, "Look at what we could have had"! What I am interested in is what other sort of interventions were dismissed by the Government in coming to this conclusion, and then, leading on from that, are you satisfied as a panel that when the Government reached the decision that they did it was done on the evidence and not for any other reason?

**Professor Brooks:** I was not privy to the discussions. It seems to me that there is a range of other interventions which are promising, some of which have produced average monthly progress for some children at least as good as that achieved by Reading Recovery. None of them, unfortunately, has been the subject, up to now, of a really rigorous trial. Therefore, it would be a good idea to have some of those done. Indeed, on one of those other programmes, the one called "inference training", there has now been a randomised control trial at the University of York, which I think is due to publish any time. I am not sure what the implication is of your referring to, or asking about, other programmes that the Government sidelined. At the time when they decided to put a lot of money behind Reading Recovery in the form of Every Child a Reader there were not many programmes that had the sort of knock-down convincing evidence that would have led anybody to say do something else rather than that.

**Q70 Mr Cawsey:** So you would say at the time the decision was made it was evidence based, on the basis of what evidence was available at that time, but it is a moving feast.

**Professor Brooks:** Yes, but there would have been some others that would have benefited from a rollout and a more detailed study as well.

**Q71** Mr Cawsey: I do not want to put words into your mouth, but do you therefore think that the Every Child a Reader programme ought to be more flexible to allow different strategies to come into place as more evidence becomes available? In other words, have we cornered ourselves off into one aspect only?

**Professor Brooks:** It is in itself quite a flexible programme anyway. I do not think they would want to be told to incorporate other programmes within it. What I am saying is that there are other programmes that would benefit from being studied in the same depth as that.

Jean Gross: May I explain that Every Child a Reader is not just one programme; it is structured to provide Reading Recovery by a specialist teacher for the very hardest to teach children, and that teacher in the school is expected to support, coach and train teaching assistants and volunteers to provide other lighter-touch interventions to children who would be in the next 15 per cent. If we look at the whole of the bottom 20 per cent of children who are struggling with reading, the aim of Every Child a Reader is to meet that 20 per cent but not to provide the most expensive and intensive intervention to all those 20 percent. It differs in this from how Reading Recovery might be used in other countries. There are a number of other programmes already from Greg's research that are already open to schools to choose. Schools choose what they will use in what we call the other layers. One of the key points in my evidence to you that I would really exhort you to bear in mind is that we may be looking for a magic bullet and what is the best buy; there will be not be one best buy, there will be different things that work for different levels of need. My reading of the evidence that I have presented to you in writing is that the children who are hardest to teach, there may well be an alternative to Reading Recovery for those children, and, yes, if it is found and if it is half an hour a day of just phonics teaching, or something else, it should be incorporated, but at the moment my reading of the evidence is that we do not have anything to put in place comparable for those children but that there will be other things for children with lesser needs. and we need an holistic solution, not one. I am a practitioner, not a professor. Last year this programme reached 12,000 children and last year 78 per cent of them got back to the level of their peers after 12–20 weeks of teaching.<sup>3</sup> You are scientists, but are we actually going to wait to do randomised control trials on 40 different interventions, comparing them with each other, for different levels

of need? You cannot just do a randomised control trial for all children; you would have to do one for children in the bottom five per cent and one for the children with slightly less needs. How long do you wait before attending to those children's needs?

**Q72** Mr Cawsey: But you are confident that other strategies can come through and that they will not be knocked out by a decision that was made on Reading Recovery.

Jean Gross: Absolutely not. Well, that is not my decision, is it? That will be government's decision. Our external organisation piloted Every Child a Reader but government are now running it, we are not running it.

**Q73 Mr Cawsey:** Do you think that it is inevitable, given that ministers decide, ultimately, and ministers are just grumpy politicians who have the inevitability of working in a very brief political cycle in the world of having to do academic research and make decisions and then review and move on, that you are always going to end up with decisions that are not properly evaluated with all the evidence weighed up, not by people such as yourselves, but by the people who ultimately make the decisions, because they have a political agenda where they must be seen to be doing something before the next time they go back to the electorate? Does not that make all of the work that you do frustrating and irrelevant?

Jean Gross: I would like to see a nice equivalent, an equivalent for the National Institute for Health and Clinical Excellence for education and children's services that was independent of the political electoral five-year timescale which, in my view, does not lead to long-term best evidence decisionmaking.

Chairman: That strikes me as a fantastic note on which to finish. I suspect that might appear in our report at the end of the day! Can I thank you all very much indeed for giving your evidence this morning and being so patient with the Committee. We actually just want the best at the end of the day, but thank you very much indeed.

## Memorandum submitted by Dyslexia Action (LI 07)

- 1.1 Dyslexia Action is the working name of the Dyslexia Institute Limited and is a national charity and the largest independent provider of educational services for those with dyslexia and specific learning difficulties (SpLD's) in the UK. The organisation has a 37 year history of providing a leadership role in developing evidence based cutting edge provision to help people with dyslexia/reading difficulties to reach their potential. Dyslexia Action has 25 centres and 110 teaching outposts around the country, works with mainstream schools, colleges, universities, local government, prison and probation and employers. The organisation undertakes research both national and international and is one of the largest providers of post graduate training in dyslexia and literacy. Dyslexia Action works to increase understanding of SpLDs and campaigns for improvement in services.
- 1.2 Dyslexia Action outlined in detail, in its submission to the Education and Skills Select Committee's inquiry into Special Educational Needs (SEN) in 2005 its concerns regarding the often poor and patchy services for children with SpLDs in England. In that submission we highlighted what we believe to be sustainable and long term solutions to ensuring that all children receive the help they need to be successful at school and in later life. As a result of that committee's report there have been a number of policy changes related to children with SEN, including those with dyslexia/SpLDs.

<sup>&</sup>lt;sup>3</sup> Note by witness for clarity: The Every Child a Reader programme reached 12,000 children. 78% of the children who had full Reading Recovery got back to the level of their peers after 12–20 weeks of teaching.

- 1.4 Dyslexia Action welcomed the 2006 independent *Review of the Teaching of Early Reading* by Sir Jim Rose on which the current policy of the teaching of reading is based. The conclusions of this report were based on international evidence which shows that children who have difficulties learning to read (for whatever reason) are more likely to acquire reading skills with a synthetic phonics approach. He also concluded that children who continue to struggle after "quality first teaching" will need additional expert help and support. We support the introduction of "letters and sounds" but have some concerns about its implementation across the country.
- 1.5 As a result of the advocacy of parents, evidence of poor outcomes for children with SEN, the lack of progress in literacy and the continued growth of school exclusions, the Secretary of State at the DCSF asked Sir Jim Rose to lead an independent review on teaching children with dyslexia as an addition to the Primary Review.
- 1.6 Dyslexia Action, along with other voluntary sector organisations whose mission is to improve the lives of those with SpLDs, has warmly welcomed the June 2009 independent report from Sir Jim Rose, *Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties.* We are also pleased that the Government has acted immediately upon the Report's recommendations and allocated some funding for the training of 4,000 new specialist teachers along with other initiatives. Training and funding adequate numbers of specialist teachers each year needs to be a priority if we are to improve outcomes. We have long argued that the lack of expertise in schools is leading to educational failure for many children with SpLD's. Teachers with a certificate or diploma in dyslexia and literacy are able to support other teachers in the school, cascade training, develop individual learning plans and support senior management and governors.
- 1.7 The recommendations of the Rose Report are clear and comprehensive and if they are implemented effectively in mainstream schools they would make a significant difference to student outcomes, especially to those who are most disadvantaged. The recommendations are based on the most current international evidence on what works for children struggling with literacy/dyslexia. There has been universal acclaim and agreement on the definition of dyslexia contained in the report. This definition has now been adopted by all the dyslexia organisations.
- 1.8 It is vital for policy and practice that dyslexia should be viewed as a continuum, not a distinct category as indicated in the Report. Good quality first teaching of reading will help all children, including those with dyslexia and the different levels of support described in the report reflect a practical and cost effective approach for schools, ensuring that individual children get the support they need. The key to success of this policy is that teachers receive the appropriate training at all levels in the system. A concern for us is to ensure that the recommendations from the report are implemented across the country and that there is political support from all political parties for this aim.
- 1.9 A major gap in ensuring that good evidence based policy is enacted is that modules on SEN and on dyslexia are not currently mandatory in Initial teacher training (ITT). We believe that this needs to change urgently. Inclusive education is not possible without trained staff.
- 1.10 Although there is a good evidence base related to children struggling with literacy difficulties and dyslexia, there is a need for research into the co-occurring specific difficulties such as dyspraxia, dyscalculia and Attention Deficit Disorder. Researching the inter relationship of all the SpLD's would help to develop improved educational interventions.
- 1.11 Dyslexia Action welcomes the strengthening of OfSTED's role in inspecting support for children with SEN. It is important that all inspectors receive training on SEN in order to carry out this role and that some inspectors have enhanced training.

October	2009			

Witnesses: Dr Chris Singleton, Director, Lucid Research Ltd, Senior Research Fellow, University of Hull, Professor Julian Elliott, Director of Research, School of Education, Durham University, and Shirley Cramer, CEO, Dyslexia Action, gave evidence.

**Chairman:** We welcome our second panel this morning: Dr Chris Singleton, the Director of Lucid Research Ltd and Senior Research Fellow at the University of Hull-welcome to you, Dr Singleton—Professor Julian Elliot, the Director of Research at the School of Education at Durham University, and Shirley Cramer, the CEO of Dyslexia Action. Welcome to you all. I will hand over to Graham Stringer to begin the second session.

Q74 Graham Stringer: Can I trouble you to define what you mean by dyslexia and say whether you think it is a useful term?

Shirley Cramer: I would like to use a definition that has now been accepted by all the voluntary sector organisations within the UK and by, I think, the majority of scientists and people involved in the field, and that is the one that is in the new report by Sir Jim Rose that came out in June 2009 *Identifying* and Teaching Children and Young People with Dyslexia and Literacy Difficulties. I would say that I think it is a really good thing that there has been so much agreement across the field about the definition of dyslexia, especially one that incorporates. I think. more flexibility than we have seen before. Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. I think that is something that we see often with children with these difficulties. Characteristic features of dyslexia are difficulties in phonological awareness, which was mentioned in the previous session, verbal memory and verbal processing speed. Dyslexia occurs across the range of intellectual abilities—there is a huge amount of evidence around that—and, I think, a very important new part of the definition, it is best thought of as a continuum, not a distinct category, and there are no clear cut off points. The definition then goes on to talk about cooccurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia. A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to wellfounded intervention. I think that is a very wideranging and what I call action oriented definition.

**Dr Singleton:** I was a member of the expert advisory group that compiled that definition, as was Professor Greg Brooks, and we spent a great deal of time considering all the definitions, or at least a very large number of definitions, which are available in the literature, bringing together a definition which was well evidenced, as far as we can tell at the present time, and I am greatly pleased that it has been endorsed by all the major dyslexia organisations, and I have not seen significant detraction from that, so I think that we have moved forward. Perhaps to emphasise one thing that perhaps it does not stress but I think is worth mentioning to the Committee, people often raise the question: does dyslexia exist? Of course it depends what you mean by "exist", in the same way as, "Does global warming exist?", but

in regard to dyslexia there is a considerable amount of genetic evidence, a considerable amount of neurological evidence that the difficulties which dyslexic children experience have a highly genetic component and that there are many indicators in brain differences, in brain functioning, between dyslexics and non-dyslexics and that those differences centre on the regions of the brain which are responsible for phonological processing, which, as Shirley has said, is one of the core features of the definition. So there is genetic and neurobiological evidence, if you like, which supports that approach. **Professor Elliott:** I take a different stand on this. My view is that the definition that is provided does not really help us differentiate very much between youngsters with varying kinds of reading problems. So it does not really identify a sub-group. I do not think it has much utility whatsoever and we can go into some reasons for that. As far as the evidence is concerned, there is some really excellent evidence at a number of different levels to do with reading difficulties. The trouble is that when you try to put all the bits of evidence together in some kind of sequence the logic falls down entirely. For example, there is clear evidence of a genetic predisposition towards reading difficulty for youngsters but the studies are of youngsters with reading difficulties, not a subgroup called dyslexics. The other problem is that you cannot test an individual child that you see before you with some kind of genetic test to see this. In other words, there is no link between studies that look at groups of poor readers that suggest that there are genetic predispositions for some of those youngsters and then see an individual child and make a judgment as to whether this child is dyslexic or is not dyslexic. As far as neuroscience is concerned, there is evidence to show that in poor readers—not dyslexics but poor readers—certain parts of the brain have low activation or high activation. This is correlational data anyway. We cannot get any kind of causal analysis. There is no test in neuroscience to identify an individual child who you might want to describe as dyslexic or whatever. These are pipedreams. Both neuroscience and genetics are nowhere near helping clinicians to know what to do with youngsters with reading problems. Then we come on to theories of dyslexia. There are multiple theories of which the phonological awareness theory is the dominant one and the one to which I would most subscribe. But there are kids who have reading difficulties who do not show those problems in phonological awareness. Neither do they show problems in terms of working memory. One of the markers is working memory; short-term memory, holding things in their head. So you will see youngsters who will be diagnosed as dyslexic who do not have phonological problems or working memory problems. Then we come to the symptoms of dyslexia. There is a whole range of symptoms and like a horoscope, if you look at a horoscope whichever one you look at you will find you fit. When you look down the list of symptoms, every child with a reading difficulty I have seen in 35

#### 4 November 2009 Dr Chris Singleton, Professor Julian Elliott, and Shirley Cramer

years of work as a teacher of kids with reading problems, as an educational psychologist testing and assessing kids and as an academic has some of these features. The last line is this: if you separate out, within your population of youngsters who have reading difficulties, those whom you identify as dyslexic from those you do not—and this is a really complex issue because someone like Shaywitz, who is a leading authority in the US, talks about 20 per cent of children who have reading difficulties and then she uses the term "dyslexics" in the next sentence in one of her books. Other people say there are four, six or eight per cent dyslexics so we are talking about another 12 per cent of kids with reading problems who are not "dyslexic". The question is the differential diagnosis that we use in medical models should lead to differential interventions, so the next question is having identified a dyslexic youngster as opposed to any other youngster with a reading difficulty who happens to come along to a clinic or is being assessed by a psychologist, having made that differentiation, do you then have clear routes into knowing what to do about it which are different for the dyslexic than for the non-dyslexic? I have read through the Rose Report in great detail and I have read some of Chris's excellent reports—and I have found his report very, very helpful—but in there there is a total blurring between the notion of dyslexic and nondyslexic. Sorry, it is a long answer.

**Chairman:** That is very helpful.

**Q75 Graham Stringer:** It is interesting. What I find difficult about this is it is a very English-based science, is it not, and this definition would not be recognised if you went to Korea or Finland, say. If dyslexia is genetically based, as we have just heard is the view, why are there not the same problems in those countries that have more transparent languages where there is a direct correlation between the alphabet and the sounds in the language?

Dr Singleton: There are. Interestingly enough, you say why are there not the same problems in Finland. There is a huge amount of research on dyslexia in Finland and Lyytinen is one of the leading experts on dyslexia in Finland and for example he has published data which shows that about 40 per cent of children of parents who have dyslexia turn out to have dyslexia themselves. Finnish is a completely regular language but there are still problems. The problems are not necessarily as severe as they are in English which is not a completely regular language, but dyslexia is something that is found across the world, so I would disagree that it is a peculiarly English or UK problem.

**Q76 Graham Stringer:** I was not saying UK, I was saying English.

**Dr Singleton:** You mean in the English language? No, there is research on dyslexia in many other languages, in German, in Czech, in Polish and so on.

**Q77 Mr Boswell:** Do they define it in roughly the same way?

Dr Singleton: They do indeed. If you have a language where you need to relate the sounds of the language to the code of the language then you tend to get the same sorts of problem. If the language is entirely regular then that is easier for the dyslexic individual. The more irregular the language is the harder it is for the dyslexic individual. If you have a language like one of the two forms of Japanese or Chinese where you have got to relate a character to a whole word or a meaning, then the dyslexic difficulties are somewhat different and the distribution of dyslexia may be different. However, I do not know of any reason to believe that dyslexia is not found across the world. It may be differentially because genetic patterns differentially distributed across the world but the evidence suggests that you find it in other languages as well as in English.

### Q78 Graham Stringer: Professor Elliott?

Professor Elliott: It is interesting you talk about the definition. "Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling." Basically that is almost tautology because you could put those words to "reading difficulties" in there if you wanted to. The definition in this report is so amorphous and so difficult to operationalise and to utilise that in a sense when you are looking at it across countries it is not really much of an issue for me. The question is: How useful is this differentiation of the dyslexic as opposed to other youngsters who present with reading problems?

Shirley Cramer: I think this definition of dyslexia is very operational and it is why my organisation and the other organisations who care about children getting the support they need, which is really what it is all about, have accepted it and welcomed it so much. For example the issue of a continuum; we know that there are children who are very mildly affected, very moderately affected or very severely affected. If we look at response to interventions, so what is in the Rose Report and the kind of work we do in our organisation, it talks about providing help at different levels so if a child is falling behind in reading after having good synthetic phonics teaching and they are still struggling they might go to the next level and the Wave 2 provision that Professor Brooks mentioned, looking at what else they might need to support their reading or using different strategies, and then in Wave 3, so if that child is still struggling then they will need more. Severe and persistent difficulty with reading indicates dyslexia. In a sense it is what we do about it that is important and why I think this is important. Chairman: Can I stop you there because I think the point we are trying to make here is is that just reading difficulties or is there this specific term "dyslexia" and how is the specific term dyslexia helpful?

**Q79 Graham Stringer:** Can I add to that. It is really answering Professor Elliott's point where he says it is tautological. Why is it not tautological? You say

that children cannot read, therefore they have got dyslexia; therefore dyslexia is children who cannot read.

**Shirley Cramer:** One of the reasons the United States decided to do a lot of research in this area—and I know because I have lived in the United States and worked there—was that there were a number of people who were concerned in public health (not in education) who said why is it that children who can appear to do everything else are struggling to learn to read? They seem absolutely normal in every other category; why is it that this is so difficult, and the national institutes of health took that on as a public health issue because they were rather curious and intrigued and because there were so many parents and teachers asking the same question. I do not want to say grass-roots but the issues have come up because people/parents have been concerned on the ground wondering why. I think that is why it was looked at in terms of looking at the evidence base around why these children cannot read and often have a basket of difficulties including issues around dyspraxia, difficulty with motor co-ordination, difficulty with numeracy, difficulty with attention. A whole child will have elements of these difficulties and often with dyslexic children you find it is not just about reading.

**Q80 Graham Stringer:** Can I go back to Dr Singleton because apart from your oral evidence today we have had a lot of written academic submissions some of which directly contradict what Dr Singleton just said. Can you point us to academic papers that give us the definition of dyslexia in Korea and Finland and Austria and also give levels of literacy in those countries because that seems to me an absolutely crucial issue. We have evidence here that says in countries the like the ones I have just mentioned the term dyslexia does not exist or means something completely different. In Austria dyslexia means reading slowly not being unable to read. If that is wrong I would like to have the academic references that support your case, Dr Singleton.

**Dr Singleton:** As I said earlier, the impact of dyslexia on reading in different languages depends upon the structure of the language and if you have a regular language, as in German for example, then it is easier to learn to read and therefore the difficulties that dyslexics encounter are seen more in slow processing speed than they are in difficulties in relating letters to sounds because the relationship between letters and sounds is entirely regular and predictable and it is one-to-one and the same is true in Finnish and in Spanish and in Italian and so on.

Q81 Graham Stringer: Does not that blow a hole through the definition?

**Dr Singleton:** No it does not because if you look at the definition that Shirley has referred to and that appears in the Rose Report and also in my review of the research literature, it says dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. In these other languages you have difficulties with fluency particularly and furthermore it is not saying that these children have difficulties in reading as a whole; it is a very particular sort of difficulty. I think it is useful in this context to contrast it with, say, reading comprehension difficulties. About ten per cent of children have specific reading comprehension difficulties and they have a completely different pattern of difficulties. They do not have phonological difficulties. They tend to have difficulties with oral language comprehension and their pattern of brain activation is different from that you find in dyslexics. There is also a genetically inherited pattern there but it is a different one and the treatment or the intervention for those children is quite different. If you have a child who has a reading comprehension difficulty but who has accurate word reading, then there is no point in spending time teaching them phonics because they already have the phonics skills. What they need is work on inferencing and text processing and so on.

**Q82** Graham Stringer: Can I just interrupt. That was very useful and interesting but can you refer us to the references on literacy levels in other countries and definitions of dyslexia?

Dr Singleton: Not off the top of my head and I would not claim to be an expert in literacy internationally. Most of my research was on studies of dyslexia in the English language.

**Q83 Graham Stringer:** In answer to the first question you directly contradicted some of the evidence that we have got here that effectively dyslexia does not exist in Finland and Korea, just to name two countries, and now you are saying you cannot give us the academic references for that.

**Dr Singleton:** Do you want me to get the books out of my bag?

**O84** Graham Stringer: No, I would just be grateful if you could send us the references.

**Dr Singleton:** I can certainly send you the references. I thought you were asking me for the references off the top of my head.

**Q85 Graham Stringer:** No, I am not asking for that. Dr Singleton: Without question I can certainly send you the references and provide supplementary evidence on that if you wish.

**Q86** Graham Stringer: Yes please.

**Dr Singleton:** I was merely making the point that not all poor readers are the same and it is important to distinguish between different types.

**Professor Elliott:** It is hard enough to get any consensus in this country as to what the definition actually means beyond saying it is youngsters with reading decoding problems, let alone in another country. What I would say is if you look at the reports of academic papers such as Lyytinen and others around the world who have done studies, they use the term dyslexia in what I call a fairly loose kind of way, often to describe youngsters or adults with reading difficulties or decoding problems. Sometimes they use the notion of IQ discrepancies between reading and IQ which is now discredited.

#### 4 November 2009 Dr Chris Singleton, Professor Julian Elliott, and Shirley Cramer

What I would say is these people do not make clinical judgments about whether an individual child is dyslexic or not. They are doing research into reading difficulties, not dyslexia per se.

**Q87 Dr Iddon:** I have an interesting rider to what Mr Stringer has been asking you. Do children who are brought up multilingual who have a dyslexic problem in English have the same problem in the other languages that they speak?

*Dr Singleton:* As far as I am aware yes they do. There have not been a huge number of studies of this but there certainly are cases in the literature where dyslexic difficulties are experienced in more than one language where an individual has a multi-lingual background.

**Q88 Dr Iddon:** I want to turn now to the teaching of children who are diagnosed with dyslexia. What does the evidence provide us with as the best way of teaching dyslexic children?

Shirley Cramer: There are some educational intervention studies from the UK and many from the USA and I think we have mentioned before the randomised control trials around children particularly with reading difficulties which show that children need help on phonological awareness. I think the evidence you heard in the previous session about phonics. We certainly know that if struggling readers do not have the basics and are not taught synthetic phonics then it is very hard for them to become readers. The research shows that structured multi-sensory teaching, so teaching little and often, making sure that you reinforce the teaching, is a very, very important way of teaching children with dyslexia. Each child is different so there are individual characteristics: are they mildly dyslexic, are they moderately dyslexic, are they severely dyslexic, how does it show? In our organisation we provide an individual education plan. We look at what the specific needs are of the child and put together a teaching programme for that child. That is based on the skill of the teacher and an understanding of the needs of the child as they are presented. There is a number of strategies our teachers can use. We have computer-based based programmes that are structured multi-sensory programmes and very helpful particularly for older children. We have a variety of different strategies for younger children, again depending on the presentation, but they will all contain elements of multi-sensory teaching in the way the children will learn, and also reinforcement, what we might call over-learning, because obviously if people have a short-term memory problem reinforcement of something is very important and it is structured in a certain way so that the child who has phonological processing difficulties can learn.

**Q89 Dr Iddon:** The evidence we have in the Committee suggests that phonological interventions do not work for all dyslexic children. If they do not work with a particular child what direction does the teaching take then?

Shirley Cramer: It will depend on the difficulty that the child is showing, so for example Chris has just mentioned reading comprehension. Often the kind of things that we are dealing with are writing difficulties as well because there are children who have specific issues with forming sentences and with thinking through how to specifically write something for a classroom piece. It is not just about reading and it is not just about writing, but it is the variety of things that a child may need to do to develop strategies to allow them to access their education, so there is reading first but there are many others aspects of that. It is not just about phonology although that is very important. They will look at other ways of allowing the child using multi-sensory techniques, a variety of techniques, to do that. But the training and the skill of the teacher is really paramount in this, I would say.

**Q90 Dr Iddon:** Are you telling us that the interventions for dyslexic children when they have been diagnosed should be quite different from the interventions that we give to other poor readers?

**Shirley Cramer:** No, I am not saying that because I think it is the wave approach that I mentioned before. If you are talking about a six-year-old who is struggling with literacy you will be doing the same. In fact, we have programmes ourselves where we work with mainstream education and we use our multisensory teaching techniques and phonological awareness with all the children. We do not care why they are struggling with reading. Some become more accurate and they make progress. Those that are not making progress we then have to look at them again and say what else do these children need, do they need it more intensively, do they need this more often, do they need something different, and that is how the wave would go up. In fact, that would provide a more cost-effective approach to teaching children who are

Professor Elliott: This is exactly my point. My point is that the public believe that if they get this diagnosis this will point them to a differential form of intervention and that they will do something different. "At last I have got the diagnosis; now they know what to do about it," and that is not correct. The approaches that groups such as Dyslexia Action are advocating are good approaches but they are for all kids with problems and even then you have to make individual assessments of different youngsters. The idea that you can sub-divide the population of people struggling to learn to read into dyslexics and non-dyslexics is untenable.

**Dr Iddon:** Graham Stringer has already intimated that children's literacy skills in some countries—most of Eastern Europe and Cuba and Barbados I have here in the evidence—have higher literacy rates than children in the UK at similar ages. How do they teach their children to read if they can achieve those higher literacy skills than children in Britain? What is the difference internationally? Is there any evidence on that?

**Chairman:** Can anybody respond to that? We will have to pass on that, Brian. In reply to a member of the audience, sorry, you cannot speak. I do not mean to be disrespectful.

#### 4 November 2009 Dr Chris Singleton, Professor Julian Elliott, and Shirley Cramer

Q91 Dr Iddon: Could I ask one final question. If we intervene early with dyslexic children as poor readers and poor writers as well should the interventions with dyslexic people continue through their education, certainly through primary school? Shirley Cramer: It really depends how severe the dyslexia is. In fact, if you teach a child with mild dyslexia to read and they understand what they need to do, they understand their own learning, then, no, you do not need to do anything extra as long as they understand that they might read more slowly, for example, or that it might take them longer to do certain things. The point about early intervention is prevention. You want to prevent educational failure and there are far too many children in classrooms who are really struggling because they have not had the right kind of help and that is the point really.

**Q92 Chairman:** Our question is does defining them as dyslexics help those children or not?

Shirley Cramer: It does not if you do not have people who are trained to teach them. That is the bottom line if you like. It does not matter what you call anything; if you do not have people who are skilled in the classrooms and in the education system to support the children then they are not fully included, they are not part of it. Professor Elliott and I would disagree on this but for some children and for some adults the label of dyslexia is very important because what it says to that person is there is a reason why they are having difficulty learning to read and for a child whose self-esteem is very badly damaged at ten or 11 who is really struggling, to understand that because of their uncle or grandfather this is a difficulty that runs in the family, it is not because they are thick or stupid it is because they have a specific difficulty is enormously helpful to their learning because once they understand that they can then say, "I will do something about it."

**Professor Elliott:** Having worked in clinical work for 25 years, parents want labels—absolutely—and the label does help a lot of parents, but the question is the scientific rigour behind the label and whether or not the label can be used in a clear way so that everyone knows exactly what we mean by that label and it is consistent. A lot of educational psychologists have said to me they use the label because parents like that even though they know the term itself is conceptually flawed.

Dr Singleton: I think we should not forget that dyslexia is not just a difficulty with word reading; it is also a difficulty with spelling and with writing, and as dyslexics get older, particularly if they have had the right sort of help from the sort of teaching that Shirley was referring to, their reading tends to improve but they still have subsequent problems. Dyslexics tend to remain lifelong poor spellers, for example. It is very difficult to remediate spelling in English. They continue to have difficulty in structuring their writing. It takes them a long time to produce written work appropriate to their intellectual capabilities and their reading tends to remain slower than other individuals. That is the sort of profile you see for example in dyslexics at university level and that is another reason why it is important for the individual to understand the nature of their difficulty so that they can find appropriate strategies or be helped to find appropriate strategies to overcome those difficulties so they can realise their potential throughout secondary education and on into university and career

**Dr Iddon:** Chairman, I think we should say to the two ladies, one at the back and this lady here, that if they have any evidence there is still time to send it into the Committee.

**Chairman:** Of course there is. Graham Stringer?

**Q93 Graham Stringer:** It is really on Dr Singleton's point and again I am interested in the academic references, not off the top of your head, because there is a deep conflict in terms of the scientific evidence we are getting on this matter. One of the submissions says when dyslexics are taught to read the question in the written evidence is where does it go? If it is a condition and then people are taught to read, there are some dyslexics who read as well as other people when they have been defined, they are eventually taught to read and they are indistinguishable from other people who learned to read rather more easily. You are saying, if I understand it, that a lot of people defined as dyslexics can be taught to read but they never get up to the level of people who found it easier. I would be interested in the academic references on that.

**Dr Singleton:** I certainly did not say they never did. I said that is the profile that you tend to see in older dyslexics particularly at university level. They are put under a great deal of stress in terms of the amount and complexity of reading and writing that they need to do and that is the problem under which they struggle. The pattern of difficulties in dyslexia extends across verbal memory, as Shirley has said, and that impacts on things like the ability to recall facts and figures in examinations so under those sorts of conditions it takes them longer to produce the work. In answer to your question does dyslexia go away, no, dyslexia does not go away but clearly a lot of the difficulties that dyslexia presents to the individual in learning to read and write can be overcome and, furthermore, if you look at the brain-scanning studies there is brain-scanning evidence that you can get changes in patterns of brain activation in response to teaching. That is not surprising. The brain changes in response to learning just as when cabbies are learning The Knowledge in London parts of their brain change. Basically the brain changes, but I do not think that dyslexia goes away; it is simply individuals acquiring strategies and skills as a result of good teaching to get round their difficulties.

**Q94 Mr Cawsey:** I suppose for me the heart of what we are trying to look at in this report is basically when governments take decisions about what they are going to do and follow as a policy, is it based on evidence or is it following fashions and whims or whatever is going round at the time. The Government has accepted the Rose Report in full and part of that is how do you diagnose children with dyslexia. Are the panel content that that is evidence based?

Professor Elliott: No I am not, because having spent so many years doing this, a child who comes to a clinic and has to be assessed on this, a child with reading difficulties will present with some of the symptoms that are in the Rose Report. If you look at some of the things in there it is like tautology. Problems with decoding are in there as a symptom so the difficulty is how do you differentiate—unless you want to use the term dyslexia to describe all youngsters with decoding problems—and I would be happy with that, I could live with that. It is the idea that somehow you can make a differentiation within this population. There is no evidence you can do that; I am sure of that.

Dr Singleton: I am equally sure you can. I have been doing it for many years and there are plenty of papers in the literature to show that you can. If you take a child with decoding difficulties, there are all sorts of reasons why they might have decoding difficulties. They may not have been taught decoding very well in the first place because the techniques the teachers used were not particularly appropriate to that child or maybe the teaching was rushed or whatever but they may have decoding difficulties because they have underlying problems with phonological awareness. That in turn could be due to different reasons. It could be due to a genetic difficulty with processing phonological information or it could be because their language experience before they came to school was such that it did not afford them the good language base to develop phonological awareness. We have described there three different types of individuals who with appropriate testing, coupled with the child's response to intervention (that is how well do they respond to good, well-structured intensive teaching) enable you to distinguish the dyslexics from the non-dyslexics and that really is the approach that is very clearly presented in the Rose Report and it is evidence-based. All of the points in relation to that teaching is evidenced. The references are there in the Rose Report and it also refers to the report which I produced for DCSF which was peer-reviewed by ten of the leading experts on literacy development in the country and which has over 400 references on this. So there is evidence that you can do this and I think that the strategy recommended by Rose and adopted, I am pleased to say, by the Government is an evidencebased strategy.

Shirley Cramer: Yes, it is a very good question and I would agree with what Chris said. I think that this report has taken the evidence. It has had a very distinguished group of people on the external advisory group. It spoke to stakeholders across the piece and parents were very involved in this, as were a variety of different views. It is very clearly written in terms of what needs to be done and I think for people like me who are concerned about what next,

it is very clearly stated what we need to do within schools in order to support children who are struggling with these issues much better. I think that is highlighted on the response to intervention which, it seems to me, also makes this a very pragmatic and the most cost-effective approach to take to ensure that these children get the support they need at the earliest possible time and much of it is down to ensuring that we have much, much improved teacher training around these issues at all different levels, at the levels of core skills, advanced skills and specialist skills. I would just like to say one more thing and that is that Professor Elliott is mostly on his own in his views on this. He is a minority voice in this and I want to make that point.

Chairman: I think that is for us to decide.

**Q95** Mr Cawsey: Okay, that was on diagnosis so we have got two yeses and a no in terms of the Government using the evidence to reach their position. As far as actually teaching children with dyslexia, or whatever you want to call it to widen it, are we just going to get the same two/one again in terms of have the Government used the evidence to come up with the right strategies?

**Professor Elliott:** To qualify my first answer, I do not disagree with the statements in here but it is just whether you can draw upon all of that to make that differentiation.

**Q96 Chairman:** I do not want to go over that again. *Professor Elliott:* Secondly coming back to intervention, I cannot find anything in here which suggests different forms of intervention for dyslexic kids than other kids with decoding problems. I have read it and maybe I have missed it but I cannot see it.

Shirley Cramer: In the report it talks about funding and the Government committed on the day the report was launched to commit funding to specialist teacher training to train teachers for a certificate or diploma in dyslexia and literacy. That is up to two-thirds of the way towards a master degree, so training people who are specialists in the system.

**Q97 Chairman:** But what will they do that is different?

Shirley Cramer: What they will do that is different is have a basis on which they are able to use a variety of different interventions and understand what is happening with individual children. It is quite a long training. It talks about the basics in teaching of reading and all the evidence based around that. It is probably quite surprising that very few people in initial teacher training are taught about how to teach reading. That is a very clear part of the teaching and training with a specialist. It also goes into all the varieties of difficulties around dyslexia and the strategies that we know work around that and there will be how you support people in writing and how you support people who are really struggling with reading. There is a variety of things but getting a skills base—

#### 4 November 2009 Dr Chris Singleton, Professor Julian Elliott, and Shirley Cramer

Q98 Chairman: Can I stop you there. We just want to know what will be different? My wife is teaching Reading Recovery this morning. What will she be doing differently as a result of going for a dyslexia diploma rather than teaching children who have genuine difficulties learning to read?

Shirley Cramer: At different levels in the system, if she were to become a specialist—

Q99 Chairman: She is a specialist—brilliant!

Shirley Cramer: A brilliant specialist I am sure then she would be deployed hopefully in the school slightly differently than being a classroom teacher because a specialist teacher in the way that this report envisions it would be supporting other teachers in what they do in the classroom so whole school, they would be teaching children with the most severe difficulties.

**Q100 Chairman:** I am sorry to be pedantic but what are the actual techniques she will be using which will be different?

**Shirley Cramer:** I think understanding what the needs are of the specific child.

O101 Chairman: She does understand all that but what will she do differently?

Shirley Cramer: She will be able to provide an individual programme for different children and if they are in secondary education for example she would be able to go and talk to the maths and geography and history teachers about what that particular child needs in the classroom and how they might change their classroom behaviour in order that that child might get the information, that being one example of something that might be done differently if somebody in a school was a specialist. They might recommend for example that a child use a laptop in the classroom. Again if they are at secondary age that might be something they would need to do. They might recommend that the child had extra time for examinations because a specialist teacher would have the skills to do that. So there are a variety of different things in the school that a specialist teacher might be able to do.

**Dr Singleton:** Could I add to that, Chairman.

Q102 Chairman: I do not understand what is different.

Dr Singleton: To add to what Shirley said, I think there are lots of other things that the specialist teacher will be doing. For a start she will putting in place procedures by which children within the school with dyslexia are not missed and at the present time there are clear indications a lot of these children are slipping through the net. For example, the No to Failure project, the final report of which is here and I hope the Committee will look at, found that about half of the children who were screened in that project in 20 schools who were found to be at risk of dyslexia were not on the SEN register. These were children in years three and seven. Schools clearly need to have systems so that those children do not slip through the net. By the way, these were children who had poor reading and spelling and who had phonological

difficulties and poor phonics and so on. Also what such a teacher will be doing is putting in place costeffective ways in which well-trained and wellmanaged teaching assistants can support children with these sorts of difficulties much earlier in the classroom. This is a clear point of difference between the sort of approach we are talking about here and for example Reading Recovery. I would perhaps refer you to evidence from York where Professors Hulme and Snowling have very effectively used welltrained teaching assistants to deliver good interventions in a very cost-effective way.

Q103 Mr Cawsey: On the Reading Recovery we heard earlier that where there is a Reading Recovery specialist the whole school improves perhaps because of the spread of good practice to other people who are in the schools.

**Dr Singleton:** This is structured programmes which are delivered by well-managed and well-trained teaching assistants. As Professor Slavin said in his submission earlier, there is quite a bit of evidence from the United States that projects and interventions of that nature can be just as effective as individually delivered projects and are much more cost-effective.

**Professor Elliott:** The panel must be able to see the flaws in this example. What people are describing is good practice for youngsters who are struggling to learn with literacy so therefore if you need to get exam dispensations—and I do clinical work and write reports that a child requires an exam dispensation—you do not need a dyslexic diagnosis to get that. You just have to show what the nature of the problems are and why they need access arrangements. Kids might need laptops or speech chips or all sorts of things. You do not need a dyslexia diagnosis to do that. You just need to know that they need a laptop because they have specific problems that you have identified that would be helped with a laptop. Working with teaching assistants-of course you need to work with teaching assistants and you need to work with other people in the department for all kids who are struggling to learn with their literacy. You do not need a differential diagnosis. I have not heard an answer yet and I have never heard one anywhere where someone can actually say of the 15 or 20 per cent of kids who are struggling to learn to read, we have eight per cent of kids with dyslexia and they require a programme which is substantially different to the programme for these other kids who are struggling to learn to read. I have not heard that yet and no-one has every told me that, and this is why I keep bleating about it.

Q104 Mr Cawsey: We have had a discussion about whether what the Government is doing is evidencebased. If I could turn that slightly the other way round: what is the Government not doing that the evidence is pointing that they should?

**Professor Elliott:** We made a programme called *The* Dyslexia Myth that went out on Channel Four in 2005. A number of the world's leading researchers and people in this room were involved as well and

#### 4 November 2009 Dr Chris Singleton, Professor Julian Elliott, and Shirley Cramer

what this programme said was that we should identify kids at an early age who are struggling with literacy, and intervene really quickly. Do not waste a lot of time with quasi medical diagnoses which are not clearly understood, that have all sorts of different symptoms that different people label. It just gets in the way. You could take away the term dyslexia overnight and you could just say let us intervene with kids with problems; let us not have sheep and goats.

**Q105** Mr Cawsey: You are saying that dyslexia is a comfort blanket.

**Professor Elliott:** I am saying for some people it has that function. Dyslexia is a useful term where people are working in genetics labs. I was in America last week at Yale University in a genetics lab and they use the term dyslexia as a loose term to talk about reading difficulties, but when we get into the clinical world and we are talking about an individual child, then it becomes much more problematic.

**Q106 Mr Cawsey:** So are you saying the quest to find a dyslexia diagnosis hinders the early interventions that the child actually needs?

Professor Elliott: My real concern would be if one followed this through and said we will identify these dyslexic kids and give these kids extra resources, extra time and extra help, and there are other kids with literacy problems who do not get this diagnosis, what will be the future for them? Will they be seen somehow as less worthy, less intelligent, lazy, unmotivated; all the negatives that people think are lost when the dyslexia label comes in; will they get this? What I am concerned about is there may be youngsters who do not get this. If we talk about the dyslexia friendly schools movement which is an intervention in schools which is very, very good with lots of great ideas about how you do this, every Headteacher I have ever spoken to says they do this with all kids with reading problems. They do not have a small group of dyslexics and do it with them and leave everyone else out; these ideas are great for everyone. It is the whole mythology that there are these clinicians out there who can make this differential diagnosis and this will lead to an intervention which is different-

**Chairman:** Professor Elliott, you have made that point.

**Q107 Mr Cawsey:** Does anybody else want to comment? What is the evidence saying that the Government should be doing that they are not?

Dr Singleton: Can I introduce something which I think the Government does need to pick up on, and I hope it will, and that is the issue of what is called visual stress. Visual stress is found in about 20 per cent of the population. It is experience of unpleasant visual symptoms and headaches and eyestrain in response to reading and it interferes with the development of reading fluency and it interferes with comprehension and it is huge problem if you have got to go to university and so on. There is good

evidence on this and it is something which can be easily identified and treatable. It is more common in dyslexics and indeed in individuals who have reading difficulties than in the rest of the population and there are good reasons for that which I can go into but probably because of time it is not worth doing. This is something which schools are beginning to address but because there are a lot of, shall I say, snake oil merchants out there who are perhaps keen to make some money on this, I think it is important that the Government issues guidelines to schools based upon the best evidence for how this can be readily identified and dealt with in the classroom.

Shirley Cramer: I think that the evidence, especially the robust evidence which I know you are interested in, has now been taken into account by this report and others. I think my concerns are around the next steps and the evidence we need to find. We need to know more information about the interrelationships between dyslexia and people who have what we call dyspraxia, which is difficulty with motor co-ordination, the inter-relationship with that and attention and dyscalculia, so there is something about the specific learning difficulties which in our field we call "hidden" disabilities when we are dealing with the older population and needing to understand more about that. I think it is more about the evidence that we need to gather and get and using the evidence well, so I am concerned that all of the recommendations that are mentioned in this rather comprehensive report are taken forward and have practical application within our schools system.

Q108 Mr Cawsey: Finally I just want to finish with the same question that I finished with the first panel on, and that is do you as a panel have a concern that the imperatives and speed of the political cycle mean that ministers do not always evaluate and weight the evidence in a way that would be helpful to having good evidence-based policy?

Shirley Cramer: I think that it is very difficult in the political cycle given how long some of this research, particularly intervention projects, takes. A really robust intervention project will take quite a long time to set up, to actually deliver and then to look at the outcomes of that and make good policy on that. Therefore I would like to echo what Jean Gross said in the first session and that is that there should be some body that is created like the national institutes for health or the National Institute of Clinical Excellence whose job it is to look at this and make recommendations.

#### **Q109 Mr Cawsey:** Is that a general view?

**Dr Singleton:** I would certainly agree with that, yes. **Chairman:** On that note of unanimity I would finish this session. Can I genuinely thank you all very much indeed because I think it is great to be able to have quite a clear difference of opinion. Everybody, including our Committee, wants to see effective readers developed in our schools with the best strategies at the end of the day. Thank you very much indeed.

#### Memorandum submitted by Professor Julian Elliott (LI 33)

#### 1. Introduction

A key difficulty that surrounds the use of evidence in respect of dyslexia is not that there is a dearth of high quality research studies operating at different levels of analysis, ranging from genetics to neuroscience, to cognitive and educational psychology, to classroom practice. Rather, it is the weakness in progressing from one level of analysis to the next, and the misconceptions and misunderstandings that result, which are highly problematic. I try to represent this difficulty by producing a general proposition that would seem to represent the most widely held understandings held by the general public and by many education and medical practitioners.

#### 2. General Proposition

Among the wider population of people with reading and other literacy difficulties, there is a subset that has a condition called dyslexia. Genetic and brain functioning studies have secured the argument that this condition has a biological basis. Dyslexia can be identified by clinicians on the basis of specialized tests and assessments. Having diagnosed that an individual is dyslexic, it is then possible to set in train intervention programmes that are geared to remediate the individual's problem. These programmes differ significantly from best practice for "non-dyslexic" poor readers. Failure to recognise the condition is likely to result in incorrect forms of intervention (or no intervention) and ultimately, unrealized potential.

It is possible to unpick the validity of this widely held view by considering each of the links in this claim. This can be achieved by examining a series of specific propositions that, cumulatively, underpin the logic of the general claim above.

#### 3. Specific Propositions and Commentary

3.1 Many individuals experience reading difficulties for reasons other than bad teaching, adverse home environment, poor motivation, emotional factors, or severe sensory/physical/mental impairments.

Comment: This seems be incontrovertible although contrary claims can be found from time to time.

3.2 For this group, the origin of their reading problems is essentially biological. Genetic factors result in a predisposition or susceptibility to reading failure. The realisation of this failure depends significantly upon environmental factors. This interaction means that searching for a direct genetic link to reading difficulty is unlikely to prove successful. However, this does not rule out the promise of important gains for understanding and intervention in the future.

*Comment*: This again is incontrovertible.

3.3 This underlying biologically-based reading problem can be labelled "dyslexia". Dyslexia can be understood as a reading difficulty that has a genetic basis (or, more accurately, genetic bases, as these are likely to be multiple and heterogeneous).

Comment: While appropriate for scientific research, this precept cannot translate directly into clinical practice as there is currently no clear genetic test that can be employed to make a differential diagnosis for any given individual.

3.4 This genetic predisposition has often been held to be linked to problems relating to phonological factors.

Comment: Even proponents of the phonological theory (eg Torgesen and Snowling) accept that this does not offer a full account There are different accounts of biological foundations of dyslexia and there are likely to be different genetic bases of these foundations.

3.5 Reading disability has been held to affect 20% of the population (Shaywitz, 2003). Estimates of dyslexia range from 5% to 15% +.

Comment: Is the there a biological difference between the dyslexic group and a larger readingdisabled group? How does one reconcile these differing estimates with the tendency of some writers (such as Shaywitz, Wagner) to treat reading disability and dyslexia interchangeably? Is it likely that a relatively high proportion of the population has a genetic problem that underpins their difficulty?

3.6 Dyslexia involves more than decoding and it is likely that the problem transforms itself; from reading slowly to making spelling errors, to having difficulty comprehending. In addition, other weaknesses, not directly related to reading (eg planning and organising oneself) are sometimes seen as a form of dyslexia even if the individual's literacy skills are only mildly problematic.

Comment: As the range of difficulties that are seen as characterising dyslexia increases, the proportion of the population with the condition expands to the point that the diagnosis becomes meaningless and practitioners increasingly respond in a cynical and unsympathetic fashion. Where should one draw the line?

3.7 The shift from structural to functional brain studies has resulted in greater understanding of those areas of the brain involved in reading. "Dyslexics" demonstrate reduced activation in some of these areas and hyperactivation in others.

Comment: These studies typically contrast brain functioning in good and poor groups of readers. They do not differentiate a dyslexic subgroup from within a broader population of individuals with reading difficulties. Thus, it is ingenuous to suggest that brain imaging techniques have diagnostic utility. Currently, one cannot yet use fMRI with individuals for clinical (diagnostic or intervention) purposes. This crucial point is not widely understood by many practitioners or lay audiences.

There are also other difficulties in using brain studies as indicative of a condition (dyslexia) as, this work involves correlational data. It has been shown, for example, that intervention results in increased activation and, therefore, fMRI merely shows what is happening at any given time rather than an underlying problem that causes reading difficulty.

3.8 Dyslexia (ie biologically-based reading difficulty) can be accurately diagnosed on the basis of a clinical interview and educational assessment.

*Comment*: There is a disingenuous sleight of hand operating here. The link between identifying biological explanations and conceptualisations and offering a differential diagnosis on the basis of presenting symptoms and various cognitive and academic test scores is not at all straight forward.

3.9. Dyslexia is typically defined as unexpected poor performance in reading. Thus, it is based upon a comparison with the individual's functioning in other areas. Dyslexics often demonstrate a "sea of strengths" (Shaywitz) in other areas and this can be a signpost for diagnostic purposes.

Comment: Does this adequately accord with a biological explanation of reading difficulty? Is it not possible that someone with dyslexia would be just as likely to be weak, as to be strong, in other areas? In addition, are there some areas of strength that are necessary/sufficient for a meaningful diagnosis? This seems unclear at present.

Can you be dyslexic if you are from an unstimulating environment, have a low IQ and demonstrate few, if any, strengths? Surely, the answer must be in the affirmative but, if so, does this not demolish the use of terms such as "unexpected performance" for diagnostic purposes?

3.10 It is possible to diagnose dyslexia on the basis of the presence/absence of a number of symptoms.

Comment: We are in horoscope country here. The lists are very long—look hard and you'll invariably find some confirming features; multiple permutations are possible. There is no essential distinguishing element (eg the presence of working memory difficulties) and two identified dyslexics can have almost wholly different sets of symptoms (other than the reading difficulty itself).

3.11 Differential diagnosis is important because it will lead to appropriate forms of intervention.

*Comment*: In my opinion, this is a key issue in respect of the Select Committee's inquiry. It is recognised, even by dyslexia pressure groups, that the forms of intervention typically recommended for dyslexics are equally valid for any child encountering reading difficulties. Thus, a diagnosis of dyslexia (irrespective of its questionable criteria) adds nothing in respect of guidance for intervention.

What is important is that there are not faulty attributions made about the child's intelligence or motivation. However, it is still possible that the dyslexic child is cognitively weak and that they may be unmotivated—hardly surprising, given the struggle to cope in school that they will typically encounter on a daily basis.

3.12 It is clinically and educationally useful to differentiate dyslexics from other poor readers.

Comment: Is it possible to identify significant numbers of poor readers (excluding those with obvious physical/sensory/mental difficulties) who would not be classified as dyslexic? How would they present? What would be the key discriminating features? How would they be treated differently as a result of the diagnosis? Clearly, there are many poor readers who do not get this label.

Is this differentiation more helpful than calling all poor readers dyslexic until such time that science provides a more valid means of differentiation? In my opinion, prolonging a dyslexic/non-dyslexic distinction within the wider pool of poor readers is arbitrary, does not inform differential intervention, and is potentially harmful to those many poor readers who, for many various reasons, may not be labelled as "dyslexic".

#### Memorandum submitted by Dr Chris Singleton (LI 35)

Dyslexia in Different Languages

Key references supplied by Dr Chris Singleton at the request of the House of Commons Science and Technology Committee.

1. Caravolas, M, The nature and causes of dyslexia in different languages. In M J Snowling and C Hulme (Eds) The Science of Reading. Oxford, Blackwell, 2005, pp 336–355.

Excerpts: "Evidence from studies of dyslexia across different languages and writing systems suggests that, in broad terms, reading impairments present similarly in English, in other alphabetic writing systems, and in the Chinese orthography." (p 354); ". . . readers with dyslexia in all languages appear to have particular difficulties in learning the inconsistencies and irregularities of writing systems ... [and].. some of the cognitive deficits underlying dyslexia are universal" (p 355).

2. Goulandris, N (Ed.) Dyslexia in different languages: Cross-linguistic comparisons. London: Whurr, 20003

This volume brings together authoritative studies of dyslexia in German, Dutch, Greek, Polish, Russian, Swedish, French, Chinese, Japanese, Hebrew and the Indian languages, as well as in multilingual people.

Excerpt: "In conclusion, neurobiological evidence demonstrates that the pattern of brain organisation differs in dyslexics when compared to controls. However, the orthography (or orthographies) that dyslexic individuals are expose to determines the severity and extent of the behavioural manifestations." (p 13.)

3. Everatt, J and Elbeheri, G, (2008) Dyslexia in transparent orthographies: Variability in transparency. In Reid, G, Fawcett, A, Manis, F and Siegel, L (Eds) The Sage Handbook of Dyslexia, London: Sage, 2008, pp 427-438.

Excerpt: "Although dyslexia has been identified amongst individuals learning to read and write in a wide variety of languages and, therefore, is not determined specifically by the language spoken... the manifestation of dyslexia may vary across different languages." (p 427.)

4. Smythe, I, Everatt, J and Salter, R (Eds) The International Handbook of Dyslexia. Volume I. A Cross-Language Comparison and Practice Guide. Chichester: Wiley, 2003.

This volume reports in detail on evidence regarding the nature of dyslexia in 18 different languages. It concludes that the underlying cognitive difficulties seen in dyslexia are universal, although the impact of dyslexia on learning to read and write may vary in different languages. With particular reference to the matters raised by the committee, attention is drawn to the following chapters:

Lyytinen, H, Aro, M, and Holopainen, L Dyslexia in highly orthographically regular Finnish.

Lwe, C and Schulte-Krne, G Dyslexia in Germany.

5. Smythe, I, Everatt, J and Salter, R (Eds) The International Handbook of Dyslexia. Volume II. A Guide to Practice and Resources. Chichester: Wiley, 2003.

This volume reports the effects of dyslexia in 54 different countries and on the ways it is addressed. This overview shows clearly that, across the world, dyslexia is defined similarly: ie as a specific neurologicallybased difficulty with the acquisition of reading and writing that impacts primarily at the word level because of underlying deficits in the ability to process and remember phonological information. With particular reference to the matters raised by the committee, attention is drawn to the following chapters:

Lyytinen, H, Aro, M and Holopainen, L Dyslexia in Finland.

Shulte-Krne, G Dyslexia Research in German-Speaking Countries.

- 6. Peer, L and Reid, G (Eds) Multilingualism, Literacy and Dyslexia: A challenge for educators. David Fulton, 2000.
  - 7. Dyslexia: An International Journal of Research and Practice:

Vol 32 (1), 2000. Special Issue: Dyslexia and Multilingualism (Part 1); and

Vol 32 (2), 2000. Special Issue: Dyslexia and Multilingualism (Part 2).

These three compendiums of research papers (Items 4 and 5) evidence that multilingual people who have dyslexia experience difficulties in reading and writing across the range of languages they speak, although the severity of their problems may vary from language to language. They show that dyslexia is not simply a phenomenon seen in the English language.

November 2009

### Monday 9 November 2009

# Members present: Mr Phil Willis, in the Chair

Mr Tim Boswell	Dr Brian Iddon	
Dr Evan Harris	Graham Stringer	

### Memorandum submitted by the Department for Children, Schools and Families (LI 00)

Literacy and Numeracy Interventions

This response was provided by the Department for Children, Schools and Families in answer to a Committee question submitted on 30 July 2009 as part of the Innovation, Universities, Science and Skills Committee's "Evidence Check".

Q1. What is the Government's policy on literacy and numeracy interventions for school children?

There is a strong evidence base which highlights the importance of early literacy intervention for children who fall behind at a young age. This is set out, for example, in a review of UK-based literacy interventions by Brooks (2002; revised edition 2007).<sup>1</sup>

An economic assessment by KPMG<sup>2</sup> of the return on investment of early intervention to address literacy difficulties, estimated that the total resulting costs to age 37 arising from failure to learn to read in the primary school years are around £1.73 billion to £2.05 billion every year to the public purse.

The development of the *Every Child Counts* programme was informed by evidence on the need for early intervention in numeracy.<sup>3</sup> From this evidence we know that it is more effective to provide intervention support to rectify learning difficulties as early as possible rather than provide remedial support to a child throughout later stages of their schooling. This is also borne out in research commissioned by the Every Child a Chance Trust.<sup>4</sup>

This evidence is the backdrop to the Government's policy on literacy and numeracy interventions for school children. Evidence, primarily from Key Stage assessments, demonstrates that although the majority of children achieve satisfactory levels of literacy and numeracy through regular class teaching, some have difficulties which mean that additional interventions are needed. Many schools have their own successful arrangements for providing additional help to children who need it. However, the Government is providing specific support on literacy and numeracy to an increasing number of local authorities and schools in England. The main focus for literacy is reading, through the Every Child a Reader (ECAR) programme. The numeracy programme is known as Every Child Counts (ECC).

ECAR was originally developed by the Every Child a Chance Trust. ECAR follows a three-wave model: Wave 1—Quality first teaching, Wave 2—Small group and less intensive one-to-one interventions and Wave 3—Intensive support. The ECAR pilot began operating in deprived and underachieving areas and is now being rolled out across the country, managed by the National Strategies on behalf of DCSF. The rollout is in its second year.

The ECC programme was created as the maths counterpart of ECAR and was developed in partnership with the Every Child a Chance Trust. The development of ECC was informed by an initial research phase which focused on gathering and studying information focusing on existing practice. Further stages involved trialling a range of interventions for seven-year-olds with numeracy difficulties within five Local Authorities. Edge Hill University was then commissioned to develop a new programme, Numbers Count, based on this research. This programme was piloted in summer 2008 and national rollout commences in September 2010.

Q2. What literacy and numeracy interventions have been considered? What evidence has the Government used to determine which are the most cost effective measures?

The above generic evidence provided the backdrop for a Government decision in December 2006 to roll out the ECAR programme nationally over the period 2008–11, with the aim of reaching 30,000 children a year by 2010–11.

Brooks, G. (2002) What works for children with literacy difficulties? Effectiveness of intervention schemes. DfES Research Report 380. Brooks (2007) What Works for Pupils with Literacy Difficulties? The effectiveness of intervention schemes. Third edition. DCSF/National Strategies.

<sup>&</sup>lt;sup>2</sup> KPMG (2006) The Long-Term Costs of Literacy Difficulties. December 2006.

<sup>&</sup>lt;sup>3</sup> For example, What Works for Children with Mathematical Difficulties? DfES Research Report 554, Dowker, 2004).

<sup>&</sup>lt;sup>4</sup> Every Child a Chance Trust (2009) The Long Term Costs of Numeracy Difficulties.

In-house analysis of school attainment in ECAR schools, compared with other similar schools found:

- Between 2007–08 the percentage of pupils achieving the expected levels in Key Stage 1 reading and Key Stage 1 writing increased at a faster rate for those schools in the ECAR programme in comparison with the rest.
- For ECAR schools the percentage achieving level 2 or more in Key Stage 1 reading increased by five percentage points to 79% in 2008, in comparison with non-ECAR schools where there was a rise of only one percentage point to 85%.
- For ECAR schools there was a rise of four percentage points to 74% in the percentage achieving the expected level in Key Stage 1 writing whereas there was no change in the percentage achieving in non-ECAR schools.

The ECC research phase data showed that 73% of children went on to achieve level 2 or above at the end of Key Stage 1. Before receiving intervention, none of these children was predicted to reach age-level expectations at this stage.

Both ECAR and ECC are currently the subject of independent evaluations which will inform future decision-making.

### Memorandum submitted by the Department for Children, Schools and Families (LI 26)

THE GOVERNMENT'S POLICY ON LITERACY INTERVENTIONS FOR SCHOOL CHILDREN WITH READING DIFFICULTIES

- 1. Evidence, primarily from Key Stage assessments, demonstrates that although the majority of children achieve satisfactory levels of literacy through regular class teaching, some have difficulties which mean that additional interventions are needed.
- 2. Provisional results from the Key Stage 1 tests in 2009 show that 84% of children (81% of boys, 89% of girls) reached at least Level 2 (the standard expected for their age) in reading. Although the vast majority of children (97%) did score at least Level 1, it is the Government's policy that as many children as possible should reach Level 2 at the end of Key Stage 1, because success in reading at this early stage is a marker for future success, both academic and social. Children who fall behind at this early stage may find it more difficult to catch up later in their school careers.
- 3. The following analysis (produced by DCSF in September 2009) shows that performance at Key Stage (KS) 1 is a key predictor of GCSE outcomes:
  - Low performance at KS1 almost entirely excludes the possibility of very high performance at GCSE.
  - Of those pupils working below Level 1 (on average across English and Maths) at Key Stage 1 in 1999, 7% reached the 5A\*-C threshold, 1% reached the 5A\*-C with English and Maths threshold and 0% reached the 3 A/A\* threshold.
  - 4. The following table provides more detail on this.

## Percentage of pupils attaining Key Stage 4 thresholds by average level at Key Stage 1

Key Stage 1 attainment	5 A*-C	5 A*-C E&M	3+ A/A*
No prior	52%	37%	18%
Below	7%	1%	0%
1	23%	7%	1%
2C	41%	19%	3%
2B	61%	39%	8%
2A	79%	61%	19%
3+	93%	85%	48%

- 5. There is a strong evidence base which highlights the importance of early literacy intervention for children who fall behind at a young age. For example, a review of UK-based literacy interventions by Brooks (2002; revised edition 2007) concluded that:
  - Ordinary teaching ("no intervention") does not enable pupils with literacy difficulties to catch up.
  - Good impact from interventions—sufficient to at least double the standard rate of progress—can be achieved, and it is reasonable to expect it.

- Large-scale schemes, though expensive, can give good value for money.
- Success with some pupils with the most severe problems is elusive, and this reinforces the need for skilled, intensive, one-to-one intervention for these pupils.
- Most of the schemes which incorporated follow-up studies showed that the pupils maintained their gains or made further gains.
- 6. It is for this reason that the Government is supportive of the principle of specific literacy interventions for children with reading difficulties.
- 7. It should be noted that all schools have been required to teach reading through phonics-based systems since 2007. High quality, systematic phonics was advocated by Jim Rose's 2006 Independent Review of the Teaching of Early Reading as the best route into reading for the majority of children.
- 8. Phonics is an approach to teaching reading and writing which focuses on the relationships between letters and sounds. Children learn to use this knowledge to blend together the individual sounds in words to read them, and the reverse process of segmenting words to spell them.
- 9. The Government therefore expects that schools will select teaching materials which conform to these requirements. It is for schools to select the materials they wish and the Government does not make recommendations on specific reading schemes.
- 10. Similarly, for children with specific literacy difficulties the Government's policy is that local authorities and schools are free to select the interventions which best suit their own needs, in the light of local circumstances and the individual needs of their pupils. The Government has not imposed central requirements on schools with regard to literacy interventions for children with reading difficulties.
- 11. The Department did commission the Brooks review in 2002 to guide schools towards interventions with evidence of effectiveness. The aims of the review were:
  - To review intervention schemes that have been devised to help struggling readers and writers, with the intention of informing schools' choice of interventions.
  - To characterise the nature of the schemes and assess their effectiveness.
- 12. However, in the light of the evidence regarding the benefits of literacy interventions, and of Reading Recovery, the Government took the decision in 2005 to support the piloting of Reading Recovery in England. Schools became involved on a voluntary basis. This led to the development of the *Every Child a Reader* (ECAR) suite of interventions, which includes Reading Recovery as a key one-to-one intervention for the needlest children.
- 13. ECAR is being rolled out over a three-year period with the intention of covering all local authorities by 2011. There is no requirement for local authorities or individual schools to participate, but there are now 122 local authorities involved on a voluntary basis, many in consortium arrangements, sharing trained expertise. The Government contributes to the costs of training and employing teacher leaders and Reading Recovery teachers. Some 20,000 children will be covered in 2009–10, more than half with Reading Recovery, the remainder with other small group or teaching assistant-led one-to-one interventions.
- 14. The roll-out has broadly been on the basis of "greatest need first" at local authority and school level, that is, where results were lowest. The programme aims to cover 30,000 children with the range of ECAR interventions by 2011, with Reading Recovery offered to the very neediest children.

THE EVIDENCE BASE FOR THE EVERY CHILD A READER AND MAKING GOOD PROGRESS PROGRAMMES Every Child a Reader (ECAR)

1. ECAR was originally developed by the Every Child a Chance Trust, in light of the strong evidence base on the need for early intervention to resolve literacy difficulties. The ECAR pilot began operating in deprived and underachieving areas. In the first year of the initiative (2005–06), ECAR covered 61 schools. 255 schools were funded in the second year of the programme and 310 in the third.

The evidence base informing the decision to roll out ECAR

- 2. Preliminary analysis of impact was based on several sources:
  - Research into the first year of ECAR, (Burroughs-Lange, 2006), which found that Reading Recovery children were on average 14 months ahead of comparison children in terms of reading age. Reading Recovery children made 20 months' progress during the year, taking them to within the average level for their age, whilst comparison children made only seven months' progress, and thus fell further behind the average for their age. On a range of other measures, Reading Recovery children outperformed comparison children with effect sizes ranging from +0.76 to +2.1. There was also a positive whole class effect.

- Management information about the first year of ECAR which provides pre-and post test results for children who receive the intervention, and qualitative insight into schools' and pupils' views (Every Child a Chance Trust, 2006). The main findings were:
  - 53% of Reading Recovery children made accelerated progress and were "successfully discontinued" from the programme,
  - 16% of children made progress but were "referred" for further/different support after they exited the programme, and
  - 27% of children had not finished their programme by the end of the year, 4% of children did not complete their programmes
  - Children who were successfully discontinued made an average gain of 21 months (as measured by reading age) in four to five months of teaching.
- Research into the effectiveness of Reading Recovery, the core intensive intervention of ECAR (eg Sylva and Hurry (1995a, b), Hurry and Sylva (1998).
- An economic assessment of the return on investment of early intervention to address literacy difficulties (KPMG, 2006). This report estimated that the costs to age 37 arising from failure to learn to read at primary school total some £1.73 billion to £2.05 billion every year.
- 3. This evidence provided the backdrop for a Government decision in December 2006 to roll out the programme nationally over the period 2008–11.

THE MAKING GOOD PROGRESS PILOT, SINGLE LEVEL TESTS AND ONE-TO-ONE TUITION

The Making Good Progress (MGP) Pilot

- 4. The pilot ran between September 2007 and July 2009 in over 450 schools in 10 LAs covering:
  - assessment for learning:
  - one-to-one tuition;
  - KS2 and KS3 single-level tests (SLTs);
  - progression targets; and
  - an incentive payment for schools where children behind national expectations are making good
- 5. The pilot was evaluated by PricewaterhouseCoopers, with a final report covering the two years of the pilot due later this year.
- 6. The PwC interim report in December 2008 found that the pilot contributed to increased rates of progression. In particular:
  - one-to-one tuition was having a positive impact;
  - schools were overall supportive of SLTs;
  - the Assessment for Learning strand was key to improving progression; and
  - teachers and schools were not motivated by the financial premiums.

### Single Level Tests

7. Piloting of KS2 SLTs continues with two test rounds in December 2009 and June 2010.<sup>5</sup> SLTs in reading, writing and mathematics are open to pupils in years 3 to 6. If the pilot proves successful (SLTs are being evaluated by the Qualifications and Curriculum Development Agency) Ministers will take a decision on whether to replace the end of KS2 statutory tests.

### One-to-one tuition

- 8. From September 2009, all LAs have funding to offer one-to-one tuition to 3.5% of the Key Stage 2, Key Stage 3 (and in National Challenge schools Key Stage 4) cohort in English and in maths. In 2010-11 funding is available for 300,000 primary and secondary pupils in English and 300,000 in mathematics.
- 9. Pupils are eligible for 10 hours of one-to-one tuition if they are behind national expectations, and/or are making slow progress in maths and/or English.
- 10. A literature review of the evidence from a range of tuition programmes supports the principle of intervention to tackle literacy and numeracy difficulties at primary and secondary school. Bloom (1984) and Cohen et al (1982) provide meta-analyses of relevant studies.

<sup>&</sup>lt;sup>5</sup> SLTs at Key Stage 3 were discontinued along with statutory tests in 2008.

- 11. Slavin *et al* (2009 forthcoming) and Brooks (2007) conclude that best results from literacy tuition are generally obtained by teachers rather than teaching assistants. Slavin also argues that small group tuition in literacy is not as effective as one-to-one, but more effective than no tuition. Researchers have recommended that small group intervention or intervention by teaching assistants is used for pupils with less severe needs and one-to-one intervention by teachers for the lowest attainers.
- 12. The DCSF programme specifies that one-to-one tuition is delivered by qualified teachers. The guidance also explains that one-to-one tuition is part of a range of interventions and schools should choose the most appropriate intervention for each child.
- 13. Findings on one-to-one tuition were reported in the PwC interim MGP evaluation. Of those surveyed:
  - 86% of headteachers believe that tuition has contributed to increased rates of progression;
  - 68% of parents/carers believe their child enjoys receiving tuition; and
  - nearly half of parents/carers (46%) with a child receiving tuition felt that they are more involved in their child's learning.
- 14. PwC's interim report was published too early for quantitative assessments of the impact of one-to-one tuition and further evidence will be included in the final evaluation report.

### DEFINITION OF DYSLEXIA

- 1. On 22 June 2009, the Secretary of State for Children, School and Families welcomed the publication of Sir Jim Rose's report entitled the Identification and Teaching of Children and Young People with Dyslexia and Literacy Difficulties.
- 2. The report included the following working definition of dyslexia, and its key characteristics, which was constructed by Sir Jim's Expert Advisory Group following their consideration of the many previously published definitions of dyslexia:
  - dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling;
  - characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed;
  - co-occurs across a range of intellectual abilities;
  - dyslexia it is best thought of as a continuum, not a distinct category, and there are no clear cutoff points;
  - co-occurring difficulties may be seen in aspect of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia; and
  - a good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well founded intervention.
- 3. We understand that this definition has been accepted by the UK's national dyslexia organisations, and should therefore provide the clarity which has been lacking in the past.
- 4. A detailed explanation of this definition is set out in greater detail, in Chapter 2 of Sir Jim's report (http://publications.dcsf.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00659-2009).

### THE EVIDENCE BASE FOR DIAGNOSING DYSLEXIA AND TEACHING DYSLEXIC CHILDREN TO READ

- 1. Sir Jim Rose considered three sources of evidence as part of developing the dyslexia recommendations:
  - (a) Responses to a "call for evidence" which resulted in 850 replies including teachers and parents expressing a wide range of views on the quality of intervention strategies;
  - (b) Visits to schools provided a valuable further source of evidence. In total, 17 primary and secondary schools were visited by the Review Team. Focus groups were undertaken in eight of these schools with pupils who have dyslexia (and related difficulties) and with their parents. The main purpose of the discussions was for children and their parents to describe their experiences of schools responding to their needs. These visits also included discussions with key staff, including specialist teachers, Special Educational Needs Coordinators (SENCOs) and head teachers, who provided information about organisational structures, early identification and screening, assessment and monitoring of progress and types of interventions to address dyslexia.
  - (c) Published Research evidence including:
  - a summary of published research on the impact of specialist dyslexia teaching and Reading Recovery on progression and outcomes for children with dyslexia, prepared by Dr Chris Singleton of Hull University;

- Dr Singleton's evaluations of the 'No to Failure' Project which monitored the progress made by children identified as being at risk of dyslexia/specific learning difficulties who had received specialist dyslexia teaching; and
- The University of Durham's evaluation of the first two years of Dyslexia Action's "Partnership for Literacy" pilots, which provide a body of specialist knowledge in some school in order that they will be better placed to meet the needs of those children struggling in the bottom 10% of attainment, including those at risk of dyslexia.
- 2. Sir Jim Rose considered the weight and robustness of this evidence with the support of his Expert Advisory Group.
- 3. A comprehensive list of all evidence considered by Sir Jim Rose as part of his dyslexia review can be found in the Bibliography section of his dyslexia report (http://publications.dcsf.gov.uk/ default.aspx?PageFunction = product details&PageMode = publications&ProductId = DCSF-00659-2009).

October 2009

Witnesses: Ms Diana R Johnson MP, Parliamentary Under-Secretary of State for Schools, and Carole Willis, Chief Scientific Adviser and Director of Research and Analysis, Department for Children, Schools and Families, gave evidence.

Q110 Chairman: Could I welcome our panel of witnesses to this second and final oral evidence session in our inquiry looking at literacy interventions and the evidence to support them. Could I say to both our witnesses today that what we are interested in is not whether the policy is a good one or a bad one but whether in fact there is evidence to actually support the conclusions for going forward, so that is the main thrust of our Committee. We do welcome Diana Johnson MP, the Parliamentary Under-Secretary of State for Schools, and Carole Willis (no relation to the Chairman!) Chief Scientific Adviser and Head of Research and Analysis at DCSF. Welcome to you both and thank you very much indeed. I wonder if I could start with you, Minister. Could you very briefly outline the Government's policy on early literacy interventions just to give us a flavour of how you see it?

Ms Johnson: Thank you, Chairman, I would welcome the opportunity to do that. I think it might be helpful to set this into context so I have a few points I would like to run through if that is all right.

Q111 Chairman: No, what we would like you to do is to say in terms of the Government's policy on early literacy interventions what is the policy. That is what I would like the answer to. I do not want a statement on behalf of the Department. I just want a very simple answer.

*Ms Johnson:* I think the Committee's primary interest is around the Every Child a Reader programme, which was a programme that was introduced in a pilot for three years in 2005 and in 2006 it was decided to roll that out and to have it running from 2008 to 2011 in the majority of local authorities. So that is the key vehicle, if you like, the Every Child a Reader programme which has within it a range of ways of trying to address the problems that young children are having around the age of six to get the early interventions in. It deals with whole class teaching, it deals then with small group work and in the five per cent of the lowest attaining children around literacy it deals with one-to-one tuition. That is half an hour a day over a 20-week period, so five days a week for 20 weeks. That is the main vehicle.

Q112 Chairman: In deciding that Every Child a Reader is your major programme—and we make no comment about whether that is good or bad—on what evidence did you base that decision to first of all go into the pilots and what assessment of the pilots was there in terms of actually moving ahead to roll this out across the nation?

Ms Johnson: If I start and then perhaps Carole might like to say something as well. I think originally in 2005 the idea of Every Child a Reader came out of the Every Child a Chance Trust and the programme that was put together had at its heart Reading Recovery. That has quite a long-established history of evaluation and review and is seen to be an effective way of dealing with literacy problems in children. The decision of the Department to put around £5 million at that stage was based on that general international evidence that was available around Reading Recovery. Of course Every Child a Reader has other component parts; it is not just around Reading Recovery but that was at the heart of it. The decision then a year on to actually roll it out between 2008 and 2011 was based on that first year of the pilot where there had been an evaluation by the Institute of Education where there seemed to be very marked performance increases in children who had had the Every Child a Reader programme. I understand that there was about a 14-month improvement in the literacy of children who had gone through Every Child a Reader. There was also a whole class improvement that could be seen as well. Because we want to make sure that we can deal with the problems children are having early on, this was a programme that appeared to be working. That first year the evaluation seemed very good. There was also management information looking at improvement within the classroom. Clearly the Government was concerned about the cost to society generally of having children go through primary school and come out not being able to read, which was going to be enormous later on, so it wanted to look at that evidence, thought that this was a good thing to do and decided to roll it out.

Q113 Chairman: I will bring Carole in later but in terms of the evidence, you keep talking about "things seem to be" and you said that there was a "mass of

evidence" about early intervention. Where is that mass of evidence? Did the Government commission specific research into that or did it do a systematic trawl of other evidence?

Ms Johnson: There is evidence. The Department had the Brooks review. There have been several lots of evidence and I am sure Carole could go through each individual one. Early on I know when we were looking at the ECAR as an area, there was a review by Brooks in 2002, which was revised again in 2007, which supported early intervention in literacy, so there was research. I think Carole can probably fill you in better but, as I understand it, he looked across the range of evidence that was available.

**Q114 Chairman:** So you feel that there is clear evidence to support early intervention and systematic phonics teaching, which is at the heart of this programme, which is why the Government went ahead?

Ms Johnson: Perhaps I ought to just say that the Reading Recovery that we are looking at, in terms of the evidence of Reading Recovery over the last 20 or 30 years, has changed and obviously phonics is now much more embedded within Reading Recovery than it was in the earlier examples of Reading Recovery. It seems to me there has been research done over time that backed up Reading Recovery. Obviously with the Rose review and the bringing in of phonics into the National Curriculum in 2007, I think it was, Reading Recovery has changed and adapted. I do not know if I am answering your question there.

Q115 Chairman: It is a bit hazy, if I might say, because I was hoping that you might point to some evidence which had turned Government's mind in this direction or whether you commissioned specific evidence or whether you had actually looked at the pilots and they had had proper evidence but I have not seen any of that. Perhaps we can come to you, Carole, and you will give us some. Carole Willis: Thank you, Chairman. As you will have heard from your experts last week, there was a range of evidence both in the UK and internationally to support the idea that interventions can help children with literacy difficulties catch up. That has been built up over a number of years. It has been reviewed extensively by a range of different academics and experts. Within that, Reading Recovery has a strong evidence base. It has been reviewed for example by the What Works Clearinghouse in the States and includes a number of randomised controlled trials. It includes a number of carefully matched comparison group studies which indicates that there is a good evidence base around the positive impacts for children with literacy difficulties. The first year of the pilot that ran between 2005 and 2008 confirmed some outstanding results from the ECAR pilot as a whole. As the Minister has said, only part of that is Reading Recovery but it brings in these wider approaches and helps to support schools to adopt the kind of intervention, whether that is small group tuition or one-to-one intervention that is most appropriate for the individual child. The results there were something like 20 months' progress, with children being 14 months ahead of a carefully matched comparison group.

Q116 Graham Stringer: Can I pick up that point because it is repeated in a lot of the submissions that we have had. That is not really the point. Nobody doubts that if you put effort into trying to improve children's reading they get better at reading. What really matters is whether it is the best method. You referred to the What Works Clearinghouse report. In the latest batch of evidence we have evidence from the International Journal of Disability Development and Education, and a paper by Mary Reynolds et al which, without quoting it all, just takes apart that work and actually says that the evidence is very weak and probably other methods work better. Are you familiar with this paper? Do you want to criticise it? Carole Willis: No, I am sorry, Mr Stringer, I am not familiar with that paper. What I can say is in terms of the reviews that the Government has commissioned—the Greg Brooks review in 2002 and the review in 2007—the Every Child a Reader programme came out very high, possibly top, in terms of the one-to-one interventions, in terms of the effect sizes of .76 to 2.1: these were extraordinary effect sizes related to the intervention. Plus Sue Burroughs-Lange, as part of that pilot evaluation, also found a whole class effect which may not be coming through with those other types of interventions because the Reading Recovery teachers are not only there to provide that one-toone intensive support in Reading Recovery but also to help strengthen literacy activity for the whole class and to help deliver the small group interventions as well, so it is not just a Reading Recovery programme, there are those broader benefits that we have observed not just in the first year but also in follow-up studies.

Q117 Chairman: I do not think we are debating that this has had improvements and if we are then I am sorry we are not making ourselves clear. The point is were there any other studies done in which you could have a genuine comparison to say whether in fact A was better than B, because B might be significantly cheaper and more cost-effective? Where is that evidenced because that seems to me to be missing, unless we have missed something in terms of our inquiry?

Carole Willis: Two things, Chairman. On the costeffectiveness point, the academic research and
reviews that I have seen tend to agree that for
children who are struggling a little bit small group
intervention is a very effective form of catch-up, but
for those who are struggling most then one-to-one
tuition is the most effective way to go. One-to-one
tuition will tend to be more expensive although,
interestingly, Bob Slavin raises the point that
possibly small group tuition, where the sessions last
longer, may not be as cheap as we all think. However,
if one-to-one intervention is the route to go down,
then that is already a relatively costly type of
approach. In terms of the relative effectiveness of

these different approaches, not many studies across the world have tried to look at a number of different interventions within the same study. That is quite complex. Some have but what has tended to happen is studies will look at the impact of an intervention compared to a 'do nothing' option and then compare the size of that effect across different studies. It is not ideal. In an ideal world, theoretically, we would like to include all of the interventions and all of the different permutations of those interventions in one study. That is not practical so what we need to do is take evidence from those different studies and compare across them.

Q118 Mr Boswell: It may or may not reassure you to hear that my wife used to tutor adult literacy and we are interested, but she has not briefed me on this. Can I unpack this a little more? It seems to me that a dilemma is developing. Where there is evidence and of course there is evidence that you have just adduced—you want to make the case for Reading Recovery, and I understand that. Ministers may sometimes have to make a decision because they have to make a decision. I understand that, too. However, on the other hand, when the evidence is a little shakier somehow it is rather glossed over. For example, unless I misheard you, earlier when you were talking about the impact of Wave 3 interventions on the whole class, you suggested there was a sort of bonus from that, you rather implied that there was evidence and in particular that there was evidence that Reading Recovery was the best way of delivering that bonus effect. Is there any metric at all for doing that? Has anybody done a regression analysis that would stand up for a moment in econometrics to be able to show that that has actually happened? Again we are not debating the merits; we are just debating how you evaluate the merits.

Carole Willis: Yes, Mr Boswell, the evaluation of the pilot Every Child a Reader specifically sought to identify whether there was a whole class effect associated with the wider activities of the Reading Recovery teacher and it found that the ECAR classes were four months ahead of the comparison schools in the first year and still were three months ahead at the end of the second year. It is difficult to say, hand on heart, 100 per cent, that was because of the Reading Recovery teacher because there might have been other factors in there but that lends quite strong evidence.

Q119 Mr Boswell: So there is a proxy metric but equally, just for the record, there is no comparative study done about the other possible approaches that you did not use in that pilot?

Carole Willis: There are a number of different studies of the different types of interventions. I am not aware that they have sought to identify whether there is a whole class effect but most of them have not been as focused as ECAR is on providing that additional literacy support. Mr Boswell, could I pick up on something you mentioned at the start of your remarks about needing to find a rationale. I cannot remember your exact words, but it is my strong

interest and my purpose in the Department to ensure that policy is based on sound evidence, and we will continue to monitor and review new evidence and new evaluations as they come forward. This is not a static picture and I will be providing advice and my analysts will be providing advice to ministers about the development of this programme. We have commissioned an independent evaluation just recently from IFS, the University of Nottingham, and NatCen to look very carefully at how the programme is implemented, to undertake a cost/ benefit analysis and to look at the value for money of the way in which ECAR is being implemented.

Q120 Chairman: How can you have a cost/benefit analysis if you have nothing with which to compare it?

Carole Willis: This particular study will look at the costs of implementing the scheme against the benefits, and the impacts in terms of children's improvement in literacy, so it will be within the ECAR intervention. What we will need to do, as I think you are getting at Chairman, is compare that with other emerging evidence from alternative interventions.

Q121 Dr Harris: Ms Willis, you are not required, are you, since you came into this post in August 2008 to agree with everything that happened before you arrived?

Carole Willis: No of course not.

Q122 Dr Harris: You are allowed to say if you had been there, or with retrospect maybe you would not have done it the same, or would that be awkward for you to say that? I accept it would be for a minister because that is like criticising a predecessor but you are supposed to be independent, are you not, of history?

Carole Willis: As a civil servant I am required to abide by the Civil Service Code of Conduct which requires me to be impartial and objective and I also maintain my professional integrity and my professional independence as an economist. I was not around, as you rightly point out, when these decisions were made in DCSF, but I have extensively reviewed the evidence over the last three weeks, and looking at all of the material, it seems to me that there was indeed a very strong evidence base and I think it was an entirely sensible decision to go ahead. The evidence was good enough—

Q123 Dr Harris: A very strong evidence base or a good enough evidence base; there is a difference? You said both in your last sentence.

Carole Willis: The evidence from the pilot—

Q124 Dr Harris: Just generally, was it a very strong evidence base or was it a good enough evidence base for the decision to be made?

Carole Willis: I think the evidence on the effectiveness of Reading Recovery and ECAR in particular relative to other schemes was very strong. That comes out in the Greg Brooks review.

**Q125 Dr Harris:** By the by, are there any areas of DCSF policy that you have inherited where you have concerns about the evidence base or have you not yet found any things that you think are not evidence based so far in your year and a bit in there?

Carole Willis: One of my missions in the Department and one of the things that the Permanent Secretary asked me to do when I first joined the Department was to review very carefully the use of analysis, the use of evidence within the Department, and the structure and use of the number of analysts within the Department. We have over 200 professional professional researchers. economists. social statisticians professional professional and operational researchers. I looked across the whole workings of the Department and I found a lot of very strong, very good practice. What I am now seeking to do is to ensure that that is consistently-

**Dr Harris:** That was not really my question because I am sure you will find good; I am asking if you found any bad.

Chairman: I really want to rule you out of order, Dr Harris, because I want to get back specifically to what we have brought our witnesses in to talk about today, which is literacy interventions, and whilst it would be lovely to hear some of those examples, you could give a catalogue of the errors within the Department—

**Q126 Dr Harris:** I did not ask for a catalogue; I just wanted to know if there were any.

Carole Willis: I think it is a good department. I have worked in several departments and I am very impressed by the extent to which evidence is used to drive policy.

**Q127 Chairman:** Carole, I would like to call a halt. We would like to hear that but perhaps on some other occasion. I wonder if I could come back to you, Minister. In terms of ministers agreeing policy, does policy originate within your Department in these areas or does it originate outside?

Ms Johnson: I am not quite sure what you are getting at.

Q128 Chairman: If we go back to 1997 and the then Prime Minister's claim of 'Education, Education, Education' and this desire to improve literacy levels, which I think the whole House agreed with, so it was something we totally supported, and if we take the Rose review, for instance, in terms of primary education, which is underpinning an awful lot of what is going on, do you take lock, stock and barrel what these outside reports say and does that just become policy? For instance, how do you evaluate the Rose review?

Ms Johnson: The Rose review on the primary curriculum? Sir Jim Rose was asked to do that piece of work to review what was happening in primary schools. Clearly the Department wants to ensure that children in primary school are getting the very best education that they can.

**Q129** Chairman: We know all that. So Jim Rose produces a report, it is a lovely report and you accept it totally the same day; how is that possible without any sort of analysis of it?

Ms Johnson: With Sir Jim's primary curriculum report you will understand that I was not in post at that time, but I understand that there were draft reports coming through, so there was some indication of where he was likely to go in terms of the recommendations that he was likely to make.

**Q130 Chairman:** What I am trying to get at, in a very cack-handed way, is is there a systematic process within the Department where you review the evidence, no matter where it comes from, before in fact you implement policy?

Ms Johnson: There is a constant review of evidence that comes into the Department, yes.

**Q131 Mr Boswell:** You would expect that to be made available to ministers?

Ms Johnson: That is my understanding, yes.

**Q132 Mr Boswell:** It would find its way to ministers if there was some query about it or some concern you might have?

Carole Willis: Absolutely, and if I could just add to the Minister's remarks, with the recent Rose review of dyslexia of course the Government had separately funded Dr Chris Singleton's review of the evidence around what works on dyslexia and wider reading difficulties and that was a separately published report.

**Chairman:** I will move on. Graham?

**Q133 Graham Stringer:** Before I get on to my batch of questions, may I go back to what Carole was saying before when you said it was not practical, and I think you were referring to having a number of randomised controlled groups. Why is it not practical?

Carole Willis: My remarks were around the practicality of including a range of different interventions within the same study because of the complexity and the time required to actually set them up and ensure that they are running properly. As I say, of all of the hundreds of different evaluations and studies that have taken place very few of them have tried to look at even two interventions, so trying to look at a vast number would be impractical.

Q134 Graham Stringer: We have here one of the factors of the failure to teach children to read, write and spell, which is probably one of the greatest costs, both to individuals and to society, that we have. One is not asking for a thousand comparisons but two, three, four or five comparisons. The structure of the pilot scheme was not a randomised controlled group and was stopped after a year and there are no real comparisons. How can that be a sensible way do deal with one of the biggest problems we have in our society?

Carole Willis: You have picked up three points there, Mr Stringer. First of all, on the point about randomised controlled trials, they are the gold standard in terms of research. I do not believe it is

always essential to have a randomised controlled trial. In this case, the evaluation of the pilot involved a very carefully matched comparison group within similar sets of London schools, identifying similar sets of children who were struggling to learn to read. to actually try and identify the impacts of ECAR as compared to doing nothing. I have a limited research budget and I always need to carefully consider what are the most cost-effective ways of undertaking research, and matched comparison groups can be undertaken at less cost and deliver very similar quality results, so I would not have strongly argued for an RCT in that case had I been in post. Similarly, we would have needed to have done a randomised controlled trial on the basis of schools rather than individuals and that again would have added complexity. That is the point about RCTs, although I should add the Department is not against RCTs. We are running a number. We have one underway looking at foster care and we have one underway looking at how to reduce teenage pregnancy, a very interesting randomised controlled trial there, although that has taken over a year just to try and get the methodology right and actually convince people to take part. Of course we have the Every Child Counts randomised controlled trial which Jean Gross mentioned to you last week. Secondly, you said that the pilot was stopped after a year. It was not; it did continue for three years.

Q135 Graham Stringer: Let me be precise then. The policy was announced after the pilot had been running for a year.

Carole Willis: At which point there was quite strong evidence from the first year of the pilot.

Q136 Graham Stringer: Which I accept is a different point but what the purpose of continuing a pilot is when you have announced the result, I am not sure. Carole Willis: I think it is quite interesting. The rollout was scheduled to take place from 2008 and, by the way, I think the Treasury would have been crawling over all of those figures at the time to make money available for this Spending Review period. Because the roll-out did not start until 2008, it did give time for the pilot to continue and if evidence had come through from the pilot that might have suggested that this was the wrong approach that would have given ministers time to re-think their approach.

Q137 Graham Stringer: Diana, do you believe that the problem of functional illiteracy is soluble? According to parliamentary questions I have asked, the figure remains stubbornly at about 23 per cent, which is a lot higher than non-English speaking countries. Do you believe that is soluble and if it is soluble, after 12 years into our Government, why are we not making more progress?

Ms Johnson: I think we have to do everything we possibly can to deal with that problem and I do not think just accepting that it is going to be at 23 per cent and putting our hands up to that is acceptable. Particularly we know that the early intervention strategies around Every Child a Reader are helping.

Just look at the evaluation that is going on and look at the figures. Just looking again at that first year's findings from the Institute of Education, I was struck by the achievements because these are about getting to children early on and making sure that, where we possibly can, we put in the right interventions, so I think it is right that we keep addressing this issue. I do not think we should just accept it.

Q138 Graham Stringer: Nobody is going to argue that we should not try. What I am asking is do you think it is soluble because internationally compared with non-English speaking countries we do very badly. While we are improving the literacy levels of the top 75 per cent of children, that bottom 23 or 25 per cent are not improving by quite as much. If you listen to what Carole has said, she was basically saying she has got a limited budget. Do you believe this problem is soluble if more money was spent studying it?

Ms Johnson: Perhaps I ought to say as well that I think saying that 23 per cent are functionally illiterate-

Q139 Graham Stringer: I am not saying that; the Government is saying that.

Ms Johnson: If that figure is put around, I do not think that is a correct analysis because I remember in the summer—

Q140 Graham Stringer: It is the Government that is giving answer to parliamentary questions. It is not my figure; it is yours, and you are part of the Government.

Ms Johnson: I think looking at the Key Stage 2 results and looking then at what Level 4 means and saying that is what we expect children to be at when they reach the end of primary school, if you actually say for children who do not get to Level 4, what is Level 3 about. Level 3 still means they can read and write. I remember in the summer because this was an issue that the press picked up. At Level 3 you can still read a Harry Potter book and enjoy it so they are not functionally illiterate even if they are within Level 3.

Q141 Graham Stringer: So is the Government right or wrong when it answers my question with 23 per cent of functional illiteracy? Are you going to change that? Are you going to say your previous answers were misleading or that you have changed your definitions?

Ms Johnson: All I am trying to say is I think we need to unpack that 23 per cent because I am not sure that that is the figure I would see as functionally illiterate.

Q142 Graham Stringer: So you are going to change the Government's definition?

Ms Johnson: Perhaps I need to have a look at the answer to the question that you put in because obviously I have not seen that.

**Q143 Graham Stringer:** I thought the way you were answering the question you had seen it because you were saying it was wrong.

*Ms Johnson:* I was just looking at the figure of 23 per cent because I am not sure where that has come from.

Q144 Graham Stringer: It has come from the Government.

*Ms Johnson:* I am very happy to take that away and look at it and write to you about it.

Q145 Graham Stringer: Can we move on then to Reading Recovery. In a number of papers the Government has criticised word memorisation methods of learning to read, and has moved on to and recommends a phonics-based recovery, yet Wave 3 of the Reading Recovery relies a lot on just simply memorising and word recognition, not on blending and using phonics. Why is that? There appears to be a contradiction in Government policy. *Ms Johnson:* Again, I am not sure I recognise what you have just said.

**Q146 Graham Stringer:** Why do you not recognise it? That is clearly part of the Reading Recovery programme and it is in contradiction with letters and sounds guidance and the strategies in Reading Recovery are in conflict with that. It is in conflict with interventions for dyslexia. If you do not know you do not know, but I would be interested to know the answer.

Ms Johnson: It is not that I do not know; it is just that I do not recognise what you are describing as Reading Recovery in that way. Reading Recovery has changed over the last few years so phonics is very much part of Reading Recovery. It might be that when it started off years and years ago it was different but now phonics is very much part of what happens in Reading Recovery.

### **Q147 Chairman:** Even at Wave 3?

Ms Johnson: Even at Wave 3. I have to say to you I was in a classroom on Friday in my constituency watching a Reading Recovery teacher deliver a lesson one-to-one with a child and phonics was very much part of what was going on in that lesson.

**Q148 Chairman:** But Wave 3 is not one-to-one, is it? *Ms Johnson:* Wave 3 can be one-to-one, yes.

**Q149 Chairman:** But you are dealing with larger groups though?

*Ms Johnson:* As I understand it, and if I am wrong I will stand corrected, phonics is very much part of the initiatives that run throughout the Every Child a Reader programme and particularly around Reading Recovery.

Q150 Mr Boswell: I wonder if I could come back on this because I think it comes back to the issue about the slipperiness in the concepts. I do not mean dishonesty and I am not trying to suggest that, but it is easy to get confused within it. If we are saying that there is now a lot of phonics in Reading

Recovery and more than there was, does that call into question automatically a lot of the studies which Professor Brooks reviewed in his major reports on the 121 cases? Are we not in fact dealing with a different case from the one for which we were claiming that there was evidence? It is a bit like the problem, if I might say, in social sciences of trying to work out on an index basis and then the components of the RPI or something change over time. How do we actually know we are not measuring apples with pears? Are we merely saying intensive teaching yields results, which I think all of us would probably agree with?

**Carole Willis:** I will check for the Committee the exact details but there was a study by Hatcher et al that looked a little while ago at three interventions.

The Committee suspended from 4.49 pm to 4.58 pm for a division in the House.

**Chairman:** We are now quorate so I am going to continue. Graham Stringer?

Q151 Graham Stringer: Just one matter of fact. We have had a written submission on the cost of the Reading Recovery programme per child and in oral evidence last Wednesday we got a different cost which was higher by about £300; it was £2,600. What do you think the cost of the Reading Recovery programme per child is?

Carole Willis: The Government has committed to spending around £100 million on rolling out the ECAR programme over the three-year Spending Review period. You are right, the original KPMG cost-effectiveness study published in 2006 had a figure of just under £2,400 and I believe Jean Gross mentioned a figure of £2,600 in her evidence. I am not sure how she has arrived at that higher figure. She might have uprated those figures by inflation. What I think we need to do is to look at the cost that the Government is actually spending on this programme. We have not published a cost per child for three reasons: (i) that £100 million is the government cost only and there may be additional costs incurred by the local authority and the school which will need to be added in to do a full cost calculation; (ii) those costs include start-up costs for the programme, so initial training for the teacher leaders in local authorities as well as for the initial training of ECAR teachers, and so the cost over time per child will go down; and (iii) of course because of this whole class effect it would be misleading to look at those costs and relate them just to the children going through Reading Recovery. However, we do have a cost/benefit component, as I have said earlier, with our evaluation and it will be teasing out and looking at all of this in more detail.

Q152 Graham Stringer: Can I take us back to Wave 3 and whether it is phonics-based or whether it is guessing on and word memory-based. If I can just read you an assessment and a quote from Professor Singleton which disagrees with what you were saying before. "Neither Reading Recovery as part of Every Child a Reader nor Reading Recovery in the UK

more generally provides systematic phonics instruction. Despite these reported changes to the Reading Recovery programme, a fundamental conflict still remains between its approach and the revised National Literacy Strategy, in which systematic teaching of phonics is now a central feature." That is one which disagrees pretty fundamentally with what you have just told us. And Bodmin describing a Reading Recovery lesson in which she claims: "The links of the teaching actions to the idea of synthetic phonics. After reading a book a child observes his teacher reading the word 'can' while demonstrating a left to right hand sweep. Then he builds 'can' with magnetic letters and reads it himself. It is clear that the child was asked to read a text before acquiring the phonic knowledge and skills involved and to read a word after being told the pronunciation. With synthetic phonics children read text after learning the phonic knowledge and skills involved and they are not told the pronunciation of a new word before being asked to read it." That seems to be in direct contradiction to the evidence you gave us. Can you explain that?

**Ms Johnson:** It does but it is not what I understand is happening in Every Child a Reader.

Q153 Graham Stringer: Right so that brings us really rather neatly, does it not, to the point of how you assess the Reading Recovery programme. Are you satisfied with how it is assessed, because again some of the written evidence we have had on this Committee is that the assessment is not peerreviewed, it is self-assessment by Reading Recovery and therefore maybe the information you are getting is not accurate because it is completely at odds. There is a great deal of self-interest going on here, is there not?

Ms Johnson: I do not know if Carole wants to come in on that but the points you are making have been made in a policy exchange document on Every Child a Reader. I know they raised a number of points and, as I understand it, on one point in particular around the assessment that is done at the end of the period of the one-to-one intervention. It is not the same teacher who has done the Reading Recovery who does the assessment, it is another teacher. I know that is one of the points raised about potentially a self-interest in making the results look better than they are. That is just one point but I think Carole might want to come in and say something else on

Carole Willis: Particularly on the point about selfinterest and the robustness and integrity of the pilot evaluation, my view is that it is very unlikely that the Institute of Education would jeopardise its strong reputation by producing biased reports—

Q154 Graham Stringer: That is a very weak justification for something. It is hardly scientific, is

Carole Willis: No it is not and that is the—

Q155 Graham Stringer: Can we not go to what is actually happening? We have very direct academic evidence here saying that the basic Government policy which is in favour of phonics is not being taught out through the Reading Recovery programme. How are you going to know what is right? Are you satisfied with the assessment and measurement of the Reading Recovery programme? Carole Willis: Sorry, Mr Stringer, could I finish the point I was going make about the Institute of Education pilot. That has been considered to be a robust study by a number of different academics who have looked at this. Chris Singleton in his review looked at the most robust work and he considered it to be robust. Greg Brooks, you will have heard last week, vouched for the soundness of that pilot and he was an independent adviser who was brought in to sit on the committee and he confirmed that those findings were robust, but of course what we can also do is to look at how these children perform in their Key Stage tests.

**O156 Graham Stringer:** He said actually that they did not meet the highest standards.

Carole Willis: That was not my recollection from listening to the hearing again yesterday. I thought he said that he could vouch for the robustness of the evidence. We will need to look at the transcript I guess.

Q157 Graham Stringer: We will look at the transcript. Just one final question on this area to Diana. You must have read the evidence that this Committee has taken so far. Are you relaxed as a government minister putting all our eggs in one basket?

Ms Johnson: Sorry, could you repeat that? I did not catch what you said.

Q158 Graham Stringer: All our eggs on improving literacy—and every political party, every Member of the House of Commons is in favour of improving literacy standards—are in the Reading Recovery basket. Are you relaxed about that given that there are different criticisms that you have heard about? Ms Johnson: I think because Every Child a Reader has the three waves to it, so it has the quality first teaching, the whole classroom teaching, then it has the smaller group intervention and then the one-toone, having that range of options available within primary schools is the right way forward in tackling literacy problems and making sure that our children leave primary school able to read and write. Obviously we have the evaluation of the Every Child a Reader programme that will be reporting and we will want to have a look at that and see what comes out of it and clearly that will then inform what we decide to do next, whether we want to continue this or try something different, but I think we have to wait for that full evaluation.

Q159 Chairman: Can I just say to you, Minister, that if this was a health matter and we were talking about cancer drugs, we would not even look at this evidence as being admissible to NICE, would we? Ms Johnson: You raise an interesting point there about whether there ought to be a body such as NICE for looking at educational interventions.

Mr Boswell: Should there be?

**Q160 Chairman:** Should there be? *Ms Johnson:* That is an interesting point—

Q161 Chairman: No, what is your view?

*Ms Johnson:* I think it is worth considering. Clearly it would involve, I imagine, another quango being set up, and we all know that politically quangos are not exactly flavour of the month at the moment.

**Q162 Chairman:** I just wish you would answer the question really; what is your view?

Ms Johnson: I cannot say yes or not at the moment. I think it is worth having a look at. I am certainly not ruling it out but I cannot say yes today because I think we would need to work through a whole range of considerations about whether it would kite-mark programmes for instance or whether it would just provide guidance or in what capacity it would operate.

**Q163 Chairman:** We are just talking about getting hard evidence to actually support the policies before you roll them through. Carole, would you support that because social science seems to be a poor relation in terms of evidence?

Carole Willis: But I do think that social policy is quite different to medical policy. You cannot, for example, do double blind randomised controlled trials as you can in medical practice. It is sometimes difficult to get people to take part in randomised controlled trials. Some local authorities or schools perceive it as unfair that some of their pupils will be getting some sort of intervention that others are not, so there are some additional issues and problems around that. In terms of an educational NICE, I am aware that a number of people have put forward this proposition as an idea. Another kind of model is the What Works Clearinghouse in the US. My view is that we need to take a step back and think about what people are calling for when they are asking for those kinds of bodies to be set up—what is it about them that people really want—and to think about what is there at the moment, what we already do, and also what schools and teachers are going to find most helpful and most useful, because it is the schools who choose which programmes to adopt to help their struggling readers. There is no imposition by government. We already produce systematic reviews. We had a research centre that we ran for several years producing systematic reviews in different areas. We commissioned critical reviews such as the Greg Brooks analysis and the Chris Singleton analysis. We have a series of websites to try and inform teachers and to disseminate information about a range of different practice. So there are lot of different issues that we need work through to determine what kind of scope such an organisation might have.

Q164 Chairman: The answer is "No"?

Carole Willis: No, I would not necessarily rule it out. I think it is a useful thing to consider. I think we need to look further at the pros and cons, and of course

the costs, and ministers will need to take a view about the costs of actually running this type of organisation.

Chairman: Over to you, Dr Harris.

Q165 Dr Harris: I will try and keep on the agenda because otherwise the Chairman, who I understand is not your relative, may well come to your rescue again. What was it about the Every Child a Reader programme that made you feel, as you said before, that a randomised controlled trial was not required, which is different from Every Child Counts where it is your view now—and I think it was your responsibility—that a randomised controlled trial with the expense and complication that raises is necessary?

Carole Willis: I think a randomised controlled trial will always give the gold standard answer in terms of research and I am very pleased that we have been able to develop and take that forward with the Every Child Counts initiative. I do not believe that that undermines or was an essential requirement for the ECAR study nor would it have been an essential requirement to gather evidence for the Every Child Counts initiative. As I say, I am glad we have been able to introduce it because it will give a better level of evidence but I do not think it is essential to always have a randomised controlled trial in social policy matters.

Q166 Mr Boswell: May I chip in at that point and ask what criteria you have for making that statement. Clearly we have all said the ideal is the ideal and you have implied that it is necessary to sometimes depart from the ideal. What is your thinking in doing that? Is it the importance of the subject, the potential economic loss, the difficulty of formulating the trial, or what? Assuming that you are in control of the process or advising ministers about the process, what are the factors weighing in your mind as to whether to go for a randomised controlled trial or not?

Carole Willis: I chair a body in the Department called the Research Approvals Committee, which includes my senior analytical team, and I also chair a policy evaluation group, so we scrutinise all of the different research projects that the Department wants to commission to ensure that they deliver value for money and that they are going to be useful and that the methodology is robust. All of those factors you have mentioned we take into account in terms of considering what the most appropriate form of evaluation is. With Every Child Counts that is a brand new type of programme. There is very little research around on numeracy, and on writing interventions, certainly very little around on numeracy compared to the interventions and the evaluations of those interventions around Reading Recovery and literacy interventions. Of course there had already been before 2005 a number of randomised controlled trials of Reading Recovery and other literacy interventions elsewhere.

Q167 Dr Harris: My understanding was that there was not any randomised controlled trial of the programme you are introducing in the UK from the UK?

Carole Willis: I think that is correct.

Q168 Dr Harris: So I am a little confused. Firstly, the criteria that you mentioned and you agreed with Mr Boswell are relevant, are they set out somewhere? Is there a transparency and openness about the approach that you are going take around whether you think it is worth doing, 'worth' being in terms of the cost and opportunity cost and the benefit of doing a randomised controlled trial, or is it very hard to predict what will emerge from these internal committees?

Carole Willis: We do have guidance on our intranet about how the Research Approvals Committee operates. We require policy teams, and the analysts advising them, to set out quite a lot of detail about what those studies will involve, but, no, we have not actually set out a very clear set of criteria about whether something should be a randomised controlled trial. I think that is an interesting point and one that I will take away.

Q169 Mr Boswell: Would you be able to make available to us the advice that is on your intranet? Carole Willis: Absolutely, yes.

Q170 Dr Harris: I will Google it. Oh, it is on your intranet?

Carole Willis: Yes. It might be available externally as well but I will certainly make sure the Committee has what is available already. I think it is an interesting point to examine whether we can have some hard and fast rules about whether something should be a randomised controlled trial or not.

Q171 Dr Harris: I am surprised because I would have thought that when there is a wealth of evidence none of which is RCT-based and therefore you could really move the field on in terms of a well-researched area by doing the first ever RCT—you would be cited all over the world because if there was one in this area we would be talking about it now—that would be a reason to do it as opposed to virgin territory where it might be appropriate to start off with something that is cheaper and quicker to see if there is any effect. So the more controversial the evidence base and the more absent an RCT, I would have thought that would be a criterion for doing it. If you agree with me, I cannot understand why you would be doing one that you consider not essential retrospectively for your predecessor and not to have thought that one would nevertheless be useful and worthwhile for this virgin area.

Carole Willis: As I said earlier, there were randomised controlled trials in other parts of the world and other experts and academics have concluded that the evaluation design for the pilot was robust and that the figures were sound.

Q172 Dr Harris: Let us come to this pilot because there is this issue about doing a three-year pilot and then rolling it out after a year. You were not in charge of that but are we going to expect under your regime something that does not clearly have in advance a one-year evaluation, so it is not a one-year pilot with a possible two-year roll on, and there is nothing wrong with that. As I understand it, this was not the design; it was a three-year pilot. Do you think that is good practice? Are we likely to see that more from your Department?

Carole Willis: Diana may want to come in. The first year of the pilot delivered very strong results. It demonstrated very strong effect sizes and very strong progress for the Reading Recovery children and, in my view, I think that was a very strong basis for ministers to take their decisions, but I do not take the decisions, ministers do; I advise. So I can present the best possible evidence to ministers but I cannot tell them what to do.

Dr Harris: I do not understand—

Q173 Chairman: Can we have the Minister's response to your question.

Ms Johnson: On that point, after one year of the three-year pilot, when the results were so good and obviously the Government was so concerned to make sure that we were doing everything possible to ensure that children were getting the interventions that they needed as early as possible, that was the reason the decision was taken after that first year, which I am sure we can all understand. We have all agreed that making sure that our children can read is very important, and sometimes you take the best evidence available to you in order to make a decision because you want to make sure that children are getting what they need.

Q174 Dr Harris: That point has been made several times in the evidence so that is absolutely consistent with what the first panel told us.

Carole Willis: Could I add though that I am more concerned about situations-and I have no examples so please do not ask me—where ministers want to take policy decisions before any results are available. They will kick something off, then three months later think, "This sounds quite good from the stakeholders and we will roll it out."

Chairman: If you have no examples, how can you make that statement?

Q175 Dr Harris: Not from this Department.

Carole Willis: I have no examples from this Department.

Q176 Dr Harris: You might be able to think of some other departments.

Carole Willis: That was not the case here. There was some good evidence.

Q177 Dr Harris: I understand that. That is very clear. Let us look at this question of why an RCT would be difficult. I do not understand why it is difficult to randomise a school in terms of cost and time. I understand you have to explain

randomisation, you have to get consent and explain what the options are. I do not see why you could not have randomised one of these other schemes in some schools and randomised to the test one if you like, although I suppose they would all be equal on that basis. What is the justification? That was part of the justification you gave as to why the Department before you got there did not do an RCT here, and I do not understand why it is more expensive, why it takes longer, except in the set-up, when because it is more powerful the sample size in many cases need not be so large because of matched comparisons. You do need to power it up, do you not?

Carole Willis: There are a couple of things there. There is an issue about getting schools to actually agree to take part in this kind of process. Sometimes schools are reluctant to take part in research. In the past we have had problems with encouraging schools to take part in the OECD PISA studies, the international studies of performance, for example, so it is not always easy to get schools to take part in research. Secondly, there is a logistical issue around picking schools and then randomly allocating them and then having, in this case, teacher leaders in local authorities, or London boroughs in this case, actually going out to train up the teachers in individual schools. If they are dotted around all over the place then that might well have been a factor that would have made it more difficult to actually introduce that kind of research.

Q178 Dr Harris: It is amazing anyone bothers to do a randomised controlled trial in medicine; all the same things apply. Finally, I want to clarify this point about the evidence base. Are you given any pause by what Professor Slavin has said where he has identified in his 2009 study from I think a study in the United States that some of these other interventions compared to nothing had similar or greater impacts across this review than the study you are doing? Does that give you pause? Secondly, in respect of that, I find it hard to believe that this Government finds it hard to get schools to do something, particularly where otherwise you would have nothing, and here they are going to give them some resources from outside for some one-to-one teaching. I find those two things unusual. Schools are always being told to do things that attract no new resources, and I am not criticising that, that is a just a fact of life, but here is something with new resources, free goods?

Carole Willis: And schools have a lot of autonomy and I am sure the Minister will want to say something about that. In terms of the Slavin report, I am familiar with the report. If you look in more detail at the studies of Reading Recovery that Bob Slavin has looked at, some of the studies in the US involved comparison groups, I believe, where there were alternative interventions being undertaken by the children, so that will tend to reduce the additional effect size associated with Reading Recovery compared to the comparison group. What Bob Slavin also goes on to say is that the results from the ECAR pilot are very encouraging and a lot more positive. I think he had something like 0.38 as an

effect size on average for the schemes that he had looked at. The effect sizes for the ECAR pilot were .76 to 2.1; they were much, much higher.

Q179 Dr Harris: On Reading Recovery he says: "However, although the outcomes for Reading Recovery were positive, they were less so than might have been expected . . . only +0.23 . . . " whereas these other ones and these are probably selective and not all of them: " . . . Auditory Discrimination in Depth, Early Steps/Howard Street Tutoring, Reading Rescue, and Targeted Reading Intervention. The 11 studies of these programmes had a weighted mean effect size of +0.6," and I think the average was 0.38. That does not match what you have just said.

Carole Willis: I thought it was higher than 0.23 but you obviously have the figures there. The basis for that average calculation included some studies where the way in which they were undertaken would have under-estimated the effect of Reading Recovery. I think in his main report Bob Slavin goes into that in more detail. Also the effect sizes associated with ECAR are much, much higher than that, and Bob Slavin also says that in his overview of the results. I should also say we are looking backwards here to some extent. We are not in a status quo or static situation. We will continue to look at the emerging evidence in this area and see if there are more cost-effective approaches. I am not sure that we have a difference of view here. I want to ensure, and I am sure the Minister wants to ensure that we are doing the most cost-effective things to make the best use of taxpayers' money and make the biggest difference for children, and as new evidence becomes available of course we need to review that and take that into account. When the decision was made to roll out the programme Bob Slavin's review was not available.

Q180 Mr Boswell: There are a couple of questions that arise out of various bits of this questioning. We talked earlier about the basis for research evaluation and the priorities you were giving. Could one apply similar thinking to the question of pilots by setting up criteria in advance for where a pilot would be aborted, either by introduction or discontinuance, after one year? I am rather thinking-and Dr Harris would be closer to the places where this happens—where sometimes in medicine it is decided to be unethical to carry on or for other reasons. Would it be possible to produce advance criteria which would in effect drive or inform a ministerial decision?

Carole Willis: Potentially, although I suspect if we had stopped the pilot after a year that might have also been criticised because it is quite useful to go on and look at follow-up work for children, and actually there was time for that to have informed the decision and a different decision could have been taken before the roll-out in 2008 if different and new evidence had emerged during that period.

Q181 Mr Boswell: The second question is quite different but is something that occurred earlier. There was almost an evidential argument, not between yourselves but with us, about what was going on in terms of Reading Recovery, and I am not clear entirely, not having reached into all these detail studies, how much the Department is aware of what is going on? Is Ofsted sent in to sample check? Do you actually know how much phonics is being taught as part of the Reading Recovery in individual cases? Is it reported to you or how do you build up a picture of what is actually happening?

Carole Willis: The implementation of the Reading Recovery element of ECAR is very carefully managed and monitored and the capacity of that scheme to be rolled out, but also to retain the fidelity of the programme, is around the continual checks from the teacher leaders on what the ECAR teachers actually doing, continual professional development, and checking that they are adhering to the programme. I do not have the details here as to exactly what that programme involves, but to the extent that it involves a systematic and substantial phonics component, that would be very clear to the Department and ministers.

Q182 Mr Boswell: Would there be an element of discretion for the individual teachers if they found something was working well to emphasise that more? Would they fall foul of the system or would they be allowed a degree of latitude in implementing it?

Carole Willis: We touched on this a little earlier. I think it is worth coming back to the Three Wave model and approach within the Literacy Strategy which relies very heavily on on-going careful teacher assessment of an individual child's needs, and responding appropriately. That might involve changing whole classroom teaching or it might involve setting individual learning goals for the individual child. That is one element and it is at that point that the teacher will also identify whether there are struggling children who need the slightly more intensive support of small group tuition. My understanding of Reading Recovery in Wave 3, the most intensive element, is that it is quite clearly structured in terms of exactly what is done. If a Reading Recovery teacher were to think this child might not be benefiting from Reading Recovery and they might need an alternative approach, then they would be free to talk to the class teacher about that.

Q183 Mr Boswell: So you are either in the scheme and signed up to it or the teacher can say "We will try something else"?

Carole Willis: That is my understanding. I will double check for the Committee after this hearing.

Q184 Chairman: Minister, just before I pass on to the very patient Dr Iddon, when the decision on Reading Recovery was taken were other interventions considered?

Ms Johnson: Chairman, I would have check that because I do not know the answer to that.

**O185 Chairman:** Do you know if there were, Carole? **Carole Willis:** In terms of the fact that there was this extensive evidence base. We had the Greg Brooks review in 2002 so there was evidence around.

**Q186 Chairman:** Would you let us know what other intervention schemes were considered before Reading Recovery was decided upon?

Ms Johnson: Not precisely.

Chairman: Thank you very much indeed.

**Q187 Dr Iddon:** Diana, I just want to focus on one group of children who are labelled partly because of their difficulties with literacy and that is those children who are labelled dyslexic. In the Reading Recovery programme there does not appear to be a requirement to take a systematic approach to phonics. We have been told that the Government advocates a systematic approach to phonics for dyslexic children vet all these children have literacy problems. Is there a conflict there somewhere?

Ms Johnson: As I understand it, when we look at ECAR and we look at the interventions that are going in there, we are looking at children around the age of six. As I understand it, and having looked at the Rose review on dyslexia, he is very clear that it is quite difficult at that age to diagnose dyslexia. The range of options that is being used in ECAR and the waves I think are quite helpful when you set them alongside what Sir Jim Rose says in his report about how you get to the point of diagnosing a child with dyslexia. Taking the Rose recommendations and looking at what ECAR is doing, I am not sure I think there is any kind of problem there.

Q188 Dr Iddon: So is what you are saying that because we cannot always diagnose dyslexia early we enter people into the Reading Recovery programme first and then as the diagnosis perhaps emerges a different approach is adopted for children with dvslexia?

*Ms Johnson:* Sir Jim Rose talks about various waves: the first wave is the teacher in the classroom identifying a child with literacy difficulties and then making appropriate provision within the teaching of the class. The second wave, if that has not worked and the child still has literacy difficulties, is using perhaps a more experienced literacy teacher or a SENCO to identify other interventions that could be used. Then the third wave that Jim Rose talks about is this diagnosis and bringing in experts to actually formally diagnose dyslexia.

**Q189 Dr Iddon:** So the Government has a separate policy for dyslexics once dyslexia is diagnosed? Ms Johnson: One of the recommendations out of the Sir Jim Rose report on dyslexia was around having specialist dyslexia teachers to work with children who have been diagnosed with dyslexia, so yes.

**Q190 Dr Iddon:** What training do those dyslexia teachers have that is special compared with the training that other teachers have for the Reading Recovery programme?

Ms Johnson: There is a range of ways of teaching children who are dyslexic that are going to be used. Of course Sir Jim Rose's report came out in the summer. We are just starting now the first group of teachers coming through this dyslexia training programme, which is of course going to be accredited, and we will be evaluating as well the effect of these teachers. There is a whole range of things including, off the top of my head, multisensory ways of engaging with a child with dyslexia. I was asking what that would mean and for instance it means using your finger perhaps to either make letters in sand or using paint so you are engaging the other senses.

**Q191 Chairman:** That is all standard Reading Recovery stuff.

Ms Johnson: I am told that there is a range of options that Sir Jim Rose puts in his report which sets out the particular ways you can engage with a child with dyslexia. Of course some of those might be what you use for children with literacy difficulties anyway, but I am told there is this list that he recommends should be used for children with dyslexia.

Q192 Dr Iddon: Is there any research evidence to suggest that if dyslexic children are left with all other children with poor literacy, they would not develop any differently than taking them out and putting them in a special programme and labelling them dyslexic? Where is the evidence that says we need to treat dyslexic children with that label stuck on them differently than any other children with literacy problems?

Carole Willis: I think this is a really complex area which is exactly why the Government asked Sir Jim Rose to undertake his review. He had a number of experts on his group. He had over 850 pieces of evidence from a range of different individuals and organisations. He took into account the research review that Chris Singleton undertook in coming to his conclusions about how to define and identify dyslexia. And his conclusion was that because dyslexia is so difficult to identify, particularly at younger ages, that the important thing to do, as Diana has mentioned, is to take children through the existing waves to identify not just whether they have problems but, importantly, how to respond to that, to see what kinds of interventions might work. It is only when they have been through—along with other children who are experiencing literacy difficulties-these different interventions and still nothing is working, that then they would be referred to first of all a specialist dyslexia expert to identify the nature of their problems and then to move on to the specialist dyslexia teachers, and Chris Singleton identifies a number of studies. It is not huge number. It is a very new field. My reading of the Rose review and my looking at this is if we have only just got to the point where we have broad, if not universal, agreement on the definition of dyslexia—and it is so difficult to diagnose and assess dyslexia—then of course the evidence base needs a lot of development and the research is at a very young stage. But Chris Singleton does pull out a number of approaches which he says were statistically significant in terms of the benefits that the children gained by working with a specialist dyslexia teacher.

Q193 Dr Iddon: I think where we are going here is that we have this group of children who are labelled dyslexic but we have several other categories of children who have quite different learning difficulties. They do not all have the same learning difficulty apart from dyslexic children so I cannot quite see why we have characterised dyslexic children and singled them out for 'other interventions', as you call it, whilst we do not do the same for the other categories of children who might need those other interventions.

Carole Willis: The Minister might want to say a bit more about this, but my reading of the Rose review was that what he was seeking to do by using an expert group was to develop a practical-based definition and approach which at every stage enabled the children to get the most effective support that they needed. It is only at a much later stage after the child has been through a number of different interventions that they would be assessed as being dyslexic.

Q194 Dr Iddon: I understand that but you have this quite dispersed group of children and as you bring them through the Reading Recovery programme you will identify what each child needs. They will not all need the same interventions; they will need separate interventions, and I am wondering why dyslexic children are labelled and picked out as requiring separate interventions when you do not mention the other categories of children that are in this group.

Carole Willis: As I understand it, Jim Rose's report was broadly welcomed by a lot of different organisations. Some of the pieces of evidence he received suggested that both parents and children themselves, when they are assessed as having dyslexia, experience a sense of relief about being able to name the problem that they have been working with.

Q195 Dr Iddon: Why do the other children in another category not get a label and why do they not get the same relief? That is the message we are giving you. Why is it just dyslexic children that get a label and are given this 'relief' whereas the other children do not get labels but they have these very poor literacy skills initially?

Ms Johnson: That is a very interesting point. Clearly the dyslexia lobby has been very clear that they wanted to have identified the particular concerns and conditions of dyslexia and that is why the Government decided to ask Sir Jim Rose to look particularly at dyslexia and to look at the evidence. As Carole said, there were 850 pieces of evidence put before that review. They visited schools, they spoke to parents, they spoke to teachers, and they looked

at the academic evidence as well. Out of that he has come forward with his proposals, his definition of what he says about dyslexia, and I think again, as Carole said, this has been broadly welcomed, and that is one area, but of course literacy difficulties, as we have been discussing, can span a whole range of areas from perhaps not having English as your first language to dyslexia and everything in between, so there is a whole range of issues there that obviously we need to keep abreast of and review and look at and evaluate.

**Dr Iddon:** It is back to the initial question I asked you about why is systematic phonics treated differently between dyslexic children, or apparently so, and the rest, all of whom have disparate problems? That is what I cannot understand and I cannot see the evidence for it either but anyhow I will leave it there. Chairman: We will leave that in the air. Graham Stringer?

Graham Stringer: I just wanted to follow up from Brian with a couple of questions.

Chairman: Very briefly if you would, please.

**O196 Graham Stringer:** Having listened carefully to your answers to Brian, I did not hear any difference in how the Government's policy varies in what it is recommending for teaching children who are diagnosed with dyslexia compared to those children who have reading difficulties.

Ms Johnson: I have got in front of me what Sir Jim Rose says about what specialist dyslexia teachers should do. Perhaps I ought to say that as well as saying there should be specialist dyslexia teachers, there is also in the Rose review a discussion about lead teachers in each school, who will go on short courses, and all teachers having access to on-line materials on how to deal with children with dyslexia. Running through what Sir Jim Rose is talking about when he talks about what specialist dyslexia teachers should be doing, he is talking about structure, a logical progression of elements with small steps teaching and explicit links made between each step-

Q197 Chairman: Can I stop you because we have all that. What we want you to answer, Minister, is Graham Stringer's very specific question: what is different between that, which is laudable, and for other students? That is the bit we do not understand. My wife is teaching this morning and she does not make any differentiation between children with dyslexia and others; they all get a really excellent Reading Recovery programme which includes all those things.

Ms Johnson: One thing that strikes me particularly about the way a specialist dyslexia teacher would teach a child with dyslexia is that it is very individualised to that child's particular needs. We have been discussing earlier on about the Reading Recovery and the various steps that a teacher would go through. With this it is very much a personalised approach.

Q198 Dr Iddon: That could apply to other groups of children as well within this category.

Ms Johnson: It may well do but I am particularly struck that this one is very much about going at the child's pace and individualising the approach taken.

Q199 Graham Stringer: I have to say, and if you want to come back you can, I still do not understand the difference in terms of how a child diagnosed with dyslexia is taught compared to a child who is not diagnosed but is having difficulty with literacy skills. The other thing that worries me about the Rose definition, and believe me I have been in a major row about dyslexia, and I know that adults and children who have been diagnosed with dyslexia get some comfort from that and get some relief, there is no doubt about that, is that there was nothing scientific in the response you gave to that question. It looks to me when I read Rose's definition that it is just a completely circular argument or, as the evidence said last Wednesday, it is tautological. Children cannot read; therefore they are dyslexic. There seems to be no differentiation either in how they are taught or in terms of the definition. If you can tell us that there is, I would be grateful.

Ms Johnson: All I can say is that the Secretary of State set up this review to look at all the evidence, to ask experts in the field.

Q200 Graham Stringer: We know that and I can read the definition before us. We are looking for the scientific basis for it, and what I am asking is when you go through the six points in the Rose definition of dyslexia, are there any criteria that you could distinguish between a child who cannot read and a child with dyslexia? You have not told the Committee that there is any difference in the methodology of teaching the child to convince the Committee that there is a difference in the definition. Ms Johnson: All I can say is that I rely on the expertise of the group that sat with Sir Jim Rose and put together the report and recommendations around dyslexia and how best to deal with dyslexia.

**O201 Graham Stringer:** So you are just accepting that?

Ms Johnson: I rely on that expert evidence.

Chairman: We must move on.

Q202 Mr Boswell: Minister, just to tidy up now on a specific first: do you feel that the Government's focus on dyslexia (which I think we can take as a working hypothesis because that is why the Rose report was commissioned) evidence-based or opinion-led? Where has it come from? Had you done a general study which said dyslexia is the problem, that is why we need to focus on it, or is it just something that you decided or people told you was a good idea to deal with?

Ms Johnson: It came out of the Children's Plan and it came out of an acceptance that we needed to look specifically at what we were doing for children with special educational needs, and in particular dyslexia. That is why the Secretary of State decided to ask an educationalist to look at the whole field and to evaluate the evidence and to come up with some proposals about how those children with dyslexia could get the best deal possible out of the education system.

**Q203** Mr Boswell: It is still not entirely clear to any of the Committee, although I cannot speak for the others, as to what the working distinction is between dyslexia as defined by Jim Rose, who is a very competent person, as against people who have reading difficulties anyway.

*Ms Johnson:* I think Sir Jim Rose recognises that it is difficult to get that definition right and it is not a distinct category. He does say it is a continuum.

Q204 Mr Boswell: What I wanted to lead on to from that, and I think one of you mentioned the word 'lobbying' earlier—and let us say at the start I think we all accept that ministers decide and advisers advise; that is a proper constitutional distinction—to what extent do you think, Minister, that factors or views other than scientific evidence influence decisions on educational policy, for example to save time, the views of children, parents, teachers and lobby groups? Are they taken into consideration as relevant factors when they perhaps conflict with the evidence?

*Ms Johnson:* I think they must be, yes, absolutely. Obviously ministers have to look at the evidence but also have the opinions of key stakeholders and of other groups that might have a particular opinion, and those are all considered, yes.

**Q205** Mr Boswell: Just to go through the thought process of that: would it be right to outface them and say, "You are wrong," or are you looking for a rationalisation which says, "If we do not carry the stakeholders with us, we are not going to get buy-in to the policy so we might as well not try it because it will not work"? What is the sort of rationale by which you are trying to look at that?

Ms Johnson: I think each case has to be taken on its individual merits. I am not sure I could give you a list that would apply to absolutely every conceivable policy decision that a minister makes. It depends on what the area is and it depends on what the overarching aims of the Government are and what the focus is at that time, I would say.

Carole Willis: If I could add a couple of points. In terms of my thinking about the evidence base, I define that very broadly with really high-quality research at one end and stakeholder views at the other. Unpicking the stakeholder views a little further—two things—first, if we are including the delivery system as part of our stakeholder group, it is absolutely critical that in formulating policies the Department and Ministers think very carefully about whether they can be implemented, what are the capacity constraints, what are the things that might actually stop this working in practice. It might be a nice idea in theory but what will happen in practice. The delivery issues are absolutely critical to this and need to be brought into play. The other thing, in terms of getting insights from the public, from the real people out there that we are trying to help—and the Department has come a long way

over the last couple of years in doing a lot of work around customer insight and in behavioural economics—there is absolutely no point in dreaming up a fantastic policy idea which looks as if it is based on lots of evidence if when it is out there people have an entirely different view and are really not going to respond well to those initiatives. Where we are trying to influence parents' engagement with children and children's engagement with learning—and so much of the work that we do is about influencing the behaviours of people out there—it is absolutely critical, in my view, that we take into account how people are likely to respond. Part of that is about people's views as well as trying to understand where similar interventions have been conducted elsewhere. Those are two things I would add on your point about stakeholders.

**Q206** Mr Boswell: Thank you. I realise these are fairly opaque concepts and you have done your best to answer them together. May I ask one other question. We all understand the importance of improving literacy standards. At the same time at the back of our minds is the thought that any individual child has only one education so you do not want them to be an experiment, as it were. On the other hand, you would want that to be well-informed by the evidence. Minister, do you feel that decisions about teaching children are made with the right amount of weight on independent expertise? Following on from that—and this is not a party political point which would be inappropriate and it could well vary with the passions of or interests of individual ministers within a political party—are you happy with the stability of the process given the speed of turnover of ministers, changes of Government, whatever it might be? In other words, how do you bring in the evidence to bear to produce something which is coherent and will last through the individual's education but at the same time give you the opportunity of making changes either in course or radical changes if appropriate later on? I think that is a real dilemma and I just wonder how you would answer it.

Ms Johnson: I think using independent expertise is very important and I certainly think over the last few years we seem to have an array of independent experts who have been producing reports for us. We have had the Rose review on the primary curriculum and we have had the Macdonald review on PSHE. There is a whole range of people who have been brought in to give their expert view on what should happen, so I feel quite confident that is the right way of doing thing, and it is happening. In terms of stability, obviously we are in a political environment, things change, ministers come and go, but I think overall I would certainly say over the last 12 years, and perhaps this is a party political point, that there has been stability around the issue of improving standards in our schools for all children and putting emphasis and focus on literacy improvement in particular.

Carole Willis: Just to follow up Diana's point or really your point Mr Boswell, which I think was partly asking the question as to whether or not

election timescales militate against long-term research evidence. I have been involved in funding and setting up a number of longitudinal surveys. I set up a wealth and assets survey when I was at the Department for Work and Pensions and secured funding over several years, but there is one particular study which has been very influential within DCSF in informing policies around parental engagement with children and informing policies around early childcare settings and it is the EPPSE study, which is the Effective Pre-School, Primary and Secondary Education. That was set up under a Conservative Government in 1996 and that is still funded now. It has built up a hugely important evidence base and it has been supported through a range of different Governments over a long period of time, so the political timescale does not necessarily mean that these long-term really important investments in research will not be undertaken.

Mr Boswell: Thank you.

**Q207 Chairman:** Graham Stringer is going to have the last word but could I ask you, Minister, one very simple question: why do children from lower socioeconomic groups not get dyslexia?

Ms Johnson: As I understand it, dyslexia occurs across all socio-economic groups.

O208 Chairman: Can you let the Committee have the evidence to show what is the connection between the diagnosis of dyslexia and the socio-economic group from which they come? Is it available? Ms Johnson: Certainly.

Carole Willis: Could I add to the commitment from Chris Singleton last week to provide you with lots of international evidence on the impact—

Q209 Chairman: Sorry, you are moving off my question. All I want to know is so far as the Department is concerned, do you have evidence to connect the diagnosis of dyslexia with children from specific socio-economic groups; yes or no?

Carole Willis: I would need to check that but there was a study undertaken by the OECD, it took seven years, which has been looking at the links between neuro-science and education and they concluded that dyslexia is widespread and occurs across cultural and socio-economic boundaries. I will let the Committee have that reference.

Q210 Chairman: I know about that reference. What I am interested in is a UK-based reference.

Carole Willis: I think we would need to check on that and get back to you.

Chairman: Thank you very much. Graham, the last word is with you.

Q211 Graham Stringer: I think Carole has just answered one of the last questions I was going to ask which was precisely that, because we have evidence that dyslexia by the Rose definition does not really exist in Korea and Finland. I have not seen the OECD report but I would be grateful for any information you have. The second question is very simply we have had a disagreement on the evidence really of what happens in Wave 3. May I ask Diana if you will look at that and give the Committee an assurance that if teaching by memorisation and guessing is still going on you will intervene and change it, if that is the case?

Ms Johnson: I am very happy to go back and look at that

**Q212 Graham Stringer:** My last question is mainly rhetorical but I would like Diana's comments on it. When President Nixon announced that he was going to cure cancer, there was a huge amount of money that went into research on cancer, so everybody putting in research programme had a cancer link. The same has happened recently on climate change. Are you concerned that the growth of dyslexia came similarly when money, in the United States in particular, moved from behavioural science into medical science so that dyslexia followed that and there is a direct correlation between the funding streams, as there is often when funding streams change?

Ms Johnson: I suppose where I start from in all of this is if a child has difficulty in the classroom with reading, what are we doing to help that child? I suppose what I am concerned about is making sure that whatever it is that we are doing is ultimately going to work for that child. I suppose that is where I start from—that this is about children's lives and if they do not learn to read the effect it has on them for the rest of their lives is appalling, so we need to get this right.

**Q213 Dr Iddon:** Every child matters.

Ms Johnson: Every child matters of course, and so we might be having this discussion today about dyslexia and about the definition but I suppose as a minister what I want to know is are we putting in the interventions that actually are going to deliver for this child if they have got a label on them or not? I suppose that is what I am interested in.

**Q214 Graham Stringer:** I think we all agree with that and that is why if wherever you draw the line after 120 years of compulsory education we have still got a quarter of children, roughly, functionally illiterate, something must be going wrong.

Ms Johnson: I am hopeful that the Rose recommendations may help us deal with some of the problems around children who are struggling and who we say are dyslexic.

Chairman: On that note of unanimity across the Committee, could we thank you very much indeed. We thought this would be quite a short session this afternoon but I think the fact that you have engaged us very much indeed has meant that it was not. We are very grateful to you, Minister, and Carole, for giving us your time.

### Supplementary memorandum submitted by the Department for Children, Schools and Families (LI 26a)

### RE: SCIENCE AND TECHNOLOGY SELECT COMMITTEE—FURTHER INFORMATION

You asked for some further clarification on a number of points following the oral evidence session on 9 November.

I will try to respond to these point by point:

### COST-BENEFIT ANALYSIS OF ECAR

You asked what plans we have to do a comparative cost-benefit analysis of literacy interventions. We have of course, as Carole made clear in the evidence session, commissioned an independent evaluation from NatCen and IFS in collaboration with the University of Nottingham and Bryson Purdon Social Research, which will undertake a cost/benefit analysis of ECAR, details of which are attached at Annex A.

We will continue to keep any emerging evidence under review.

### FUNCTIONAL ILLITERACY RATES

Firstly, I'd like to say that we do not recognise the term "illiterate" with regards to children, who are still learning. The term "functional illiteracy" can only be used in the context of adults, and there is no single, agreed way of defining it leading to the production of a variety of figures. However, it is certainly not appropriate for primary school children.

Primary school standards have never been higher. In the 2009 Key Stage 2 [KS2] English tests, provisional results show that 80% of 11 year olds are now achieving the expected level for their age compared with 63% in 1997.

But 94% achieve at least level 3. Of the 6% who do not achieve level 3 or level 4, many have special and in some cases severe educational needs.

Failure to meet the expected levels is not equivalent to being unable to read properly, and it is unfair to describe these children as "illiterate". Pupils reaching level 3 can read a range of texts accurately and independently and their writing is organised, legible and clear.

### GUIDANCE ON RESEARCH METHODS USED BY THE DEPARTMENT

See Annex B for full details.

### FLEXIBILITY OF ECAR AND READING RECOVERY

ECaR teachers work closely with class teachers, school leadership teams and parents to support children participating in Reading Recovery and to raise literacy standards in schools.

Teachers are trained in combining one-to-one Reading Recovery support with other less intensive interventions. ECaR trained teachers, who will often be the literacy lead in their schools, spend 0.6 of their time delivering ECaR. The large majority of that time (0.5 FTE) is spent in personally delivering Reading Recovery, which is the most intensive of the ECaR interventions aimed at those children with the greatest difficulties. ECaR teachers use the rest of their time dedicated to ECaR (0.1) to direct the work of other staff who deliver other early literacy interventions to children or small groups of children who need less intensive support (eg Early Literacy Support, Fischer Family Trust etc).

The ECaR programme supports a range of specific, evidence-based, literacy interventions which are pedagogically aligned with Reading Recovery. However, this does not prevent schools from using other interventions in addition to those on this list. More detail of the "layered interventions" approach is set out in the ECaR leaflet at Annex C.

### INTERVENTIONS OTHER THAN READING RECOVERY WE CONSIDERED

The choice of Reading Recovery as the core intervention of the ECAR programme was made during the pilot phase led by the Every Child A Chance Trust. The Department saw no reason to change this when taking on the programme for national roll-out. There was a wide range of evidence, including evidence from the UK and internationally, which indicated that Reading Recovery is an effective intervention. Evidence on long term maintenance of gains in the UK was less strong, but the Department felt that ECAR as a whole responded to this by putting in place a whole school approach to supporting progress in literacy through improved whole class teaching and layered interventions.

### EVIDENCE RELATING TO THE DIAGNOSIS OF DYSLEXIA AND HOW THAT RELATES TO SOCIO-ECONOMIC GROUPING

The department holds data for children identified with specific learning difficulties—of which dyslexia is a key category—as their primary SEN need at School Action Plus and with a statement of SEN. Analysis of this data at January 2009 shows 22% of these children are eligible for Free School Meals [FSM]—which the Department uses as a proxy for socio-economic grouping. This compares to 29% for all children at School Action Plus or with a statement of SEN and 12 % of children without any identified SEN. The

department does not collect data on the specific learning difficulties included within each SEN type, or on primary SEN type for children on School Action, because of burdens on schools and inconsistencies of reporting.

### TEACHING OF PHONICS

The Committee asked for further assurance that if teaching by memorisation and guessing is still going on, the Government will know about it and intervene.

As you know, the teaching of systematic phonics became a requirement by National Curriculum Order in 2007. DCSF and the National Strategies have produced a wide range of guidance on the teaching of phonics for schools and teachers. The TDA works closely with Initial Teacher Training providers to ensure teachers have the skills and techniques to equip them in quality teaching.

Ofsted provide us with information relating to teaching practice following school inspections—in May 2008 Ofsted published a survey which showed from their sample that 19 out of 20 schools were using systematic phonics programmes. Ofsted will continue to monitor this as part of their wider inspections programme.

Good teachers will use a range of strategies when teaching reading, and we trust their professional judgement in knowing what is best for an individual child. However, we make it very clear that underpinning this is the requirement to use phonics as the primary teaching method in early reading.

Reading Recovery takes a rigorous and cumulative approach to phonics. Over recent years the Department and National Strategies have worked with the Institute of Education in introducing changes to their courses and training manuals to include more phonics and there is now more high quality phonics in the daily Reading Recovery sessions. For example, Reading Recovery now includes:

- close observation and assessment of a child's phonological skills and knowledge;
- initial assessments which identify awareness of the grapheme—phoneme correspondences;
- teachers using multisensory methods to focus on details within a new word; and
- children learning to segment words into their constituent phonemes, enabling them to spell and write (the key point to decoding/encoding that underpins the Simple View of Reading).

### ADDITIONAL REFERENCES

Details of Hatcher et al (Q 150).

Hatcher, P.J., Hulme, C. and Ellis, A.W. (1994) Ameliorating early reading failure by integrating the teaching of reading and phonological skills: the phonological linkage hypothesis, Child Development, 65 (1) pp. 41–57.

Reference to OECD work on neuroscience and education

Centre for Educational Research and Innovation, OECD (2007) Understanding the Brain: The birth of a learning science. OECD (executive summary is attached for reference—Annex C).6

I would also like to offer the Committee the opportunity to visit an ECAR school and see how the programme works in practice. My officials would be happy to set this up if you felt this would be useful.

Diana Johnson MP

Department for Children, Schools and Families

November 2009

Annex A

DCSF has commissioned an independent evaluation of Every Child a Reader, which will run from autumn 2009 to March 2011 and will have three strands:

- Strand 1: Implementation of the roll-out.
- Strand 2: Impact on outcomes (school and pupil level).
- Strand 3: Value for money.

The evaluation will use a mixed method approach to evaluate how the programme has been implemented, its impact on outcomes, and its value for money.

Strand 1 will involve quantitative surveys at local authority and school level, as well as in-depth qualitative work, to investigate areas of strength and weakness, quality, and sustainability of the model.

Strand 2 will comprise quasi experimental approaches to investigate the impact of ECaR on KS1 outcomes i) for the lowest attainers and ii) for all children in ECaR schools. A suitable comparison group will be included in the analysis. The outcomes of interest will include literacy attainment and wider outcomes such as motivation, attendance and SEN status.

<sup>&</sup>lt;sup>6</sup> Not printed.

Strand 3 will comprise a quantitative cost benefit analysis to estimate the long-term value for money of the programme, drawing on the findings of Strand 2 and existing evidence on the impact of literacy on adult outcomes.

The research questions are as follows:

### STRAND 1: IMPLEMENTATION

- What are the strengths and weaknesses of the delivery model?
- Has fidelity to the ECAR standards been consistently achieved?
- What are the challenges to quality and sustainability?

### STRAND 2: IMPACT

- What is the impact of ECAR on standards of literacy for eligible pupils compared to similar pupils who do not receive ECAR?
- Are any subgroup differences observable?
- What is the impact on whole school attainment?
- What is the impact on wider outcomes?
- What longer term impact can be observed?

### STRAND 3: VALUE FOR MONEY

- What is the value for money of the ECAR programme?
- How could the delivery model be made more cost-effective?

Annex B

### GUIDANCE AVAILABLE IN DCSF ABOUT EVALUATION METHODOLOGY

### BACKGROUND

- 1. All research or evaluation projects, whatever their size or duration, which are funded by any part of the Department and which are intended to be externally contracted, must be approved by the Department's Research Approvals Committee (RAC) before they are commissioned. The RAC is chaired by Carole Willis, the Director of Research and Analysis and the DCSF's Chief Scientific Adviser. Membership comprises the senior analytical leadership team, senior policy officials as appropriate, and representatives from the Star Chamber for Schools and Communications Directorate.
- 2. The aims behind the RAC process are to ensure that Ministers are aware of the totality of research and evaluation commissioned by the Department; ensure that research and evaluation projects are undertaken using robust methodology; help avoid duplication of research and evaluation effort across the Department; help make links between otherwise disparate research and evaluation projects; and help ensure that the research and evaluation we undertake offers value for money.
- 3. In addition to the RAC, the Department's Policy Evaluation Group (PEG) is an appraisal mechanism, of the sort championed by HMT through their Evaluation and Appraisal for Government publication (The Green Book<sup>i</sup>), and applied to evaluation plans in DCSF. The PEG appraises the evaluation plans for major, "flagship" policies, ie those that are central to the Department's direction of travel, either because of their high monetary value or embodiment of a defining policy theme.

### CROSS-GOVERNMENT GUIDANCE

- 4. Policy evaluation is a family of research methods that are used to systematically investigate the effectiveness of policies, programmes, projects and other types of social intervention. Different methods of policy evaluation are needed to answer different questions.
- 5. The Magenta Book<sup>ii</sup>, produced by the Government Social Research Unit, is the core policy evaluation guidance document used by analysts in the Department. It provides guidance on how to use the methods of policy evaluation and analysis effectively and, thereby, to generate and use sound evidence at the heart of policy making and implementation.
- 6. The Magenta Book has been developed in the context of the demands of evidence-based policy making and the changing needs of analysis in and for government. A series of publications since 1997, including the Modernising Government White Paper (Cabinet Office 1999a)<sup>iii</sup>, Policy Making for the 21st Century (Cabinet Office, 1999b<sup>iv</sup>), Adding-it-Up (Cabinet Office, 2000<sup>v</sup>), and Better Policy Making (Cabinet Office, 2001<sup>vi</sup>) have stressed the importance of sound evidence, proper evaluation and good analysis at the heart of policy making. This, in turn, generated a demand for guidance on how to undertake high quality evaluation, appraisal and analysis for policy making and the production of a number of important documents including a revised version of H.M Treasury's Evaluation and Appraisal for Government (The Green Book). The Better Regulation Executive has developed an Impact Assessment tool which can help policy makers think

through the consequences of Government interventions in the public, private and third sectors and enable Government to weigh and present the relevant evidence on the positive and negative effects of such interventions.

- 7. The Magenta Book is organised around a number of questions that are frequently asked about policy evaluation and analysis. In answering these questions The Magenta Book provides guidance on:
  - How to refine a policy question to get a useful answer.
  - The main evaluation methods that are used to answer policy questions.
  - The strengths and weaknesses of different methods of evaluation, including guidance on the use of social experiments including Randomised Control Trials.
  - The difficulties that arise in using different methods of evaluation.
  - The benefits that are to be gained from using different methods of evaluation.
  - Where to go to find out more detailed information about policy evaluation and analysis.

### OTHER GUIDANCE

— In addition to the Magenta Book, there is also information on our Intranet for policy teams which gives a broad overview of why evaluation is important, and ensures that guidance is sought from experts about the appropriate methodology.

Department for Children, Schools and Families

November 2009

### REFERENCES

- i http://www.hm-treasury.gov.uk/data greenbook index.htm
- ii http://www.civilservice.gov.uk/networks/professional/gsr/resources/magenta-book-main-page.aspx
- iii Cabinet Office (1999a) Modernising Government. White Paper. Cm 4310. London, HMSO. (http:// www.policyhub.gov.uk/docs/modgov.pdf)
- iv Cabinet Office (1999b) Professional Policy Making for the 21st Century. A report by the Strategic Policy Making Team. London, HMSO. (http://www.civilservant.org.uk/profpolicymaking.pdf)
- V Cabinet Office (2000) Adding it up: improving analysis and modelling in Central Government. A Performance and Innovation Unit Report. London, HMSO. (http://www.policyhub.gov.uk/docs/ addingitup.pdf)
- vi Bullock, H., Mountford, J., & Stanley, R. (2001) Better Policy Making. Centre for Management and Policy Studies, Cabinet Office, London. (http://www.civilservant.org.uk/betterpolicymaking.pdf)

## Written evidence

### Memorandum submitted by Davis Learning Foundation (LI 01)

Comments on the report including:

- 1. Specialist Teaching: definition used.
- 2. Acceptance and use of Dr Singleton's work.
- 3. Questions re: the benefit of a phonological approach for dyslexia.
- 4. The North Yorkshire Reading Intervention Project Report.
- 5. Further questions re: dyslexic benefit from phonics.
- 6. Lack of intervention available for non-responders.
- 7. Lack of breadth evident in consultation.
- 8. A solution, and supporting research based evidence, not considered.

### 1. Specialist Teaching: definition used.

Dr Chris Singleton's Review of International Research, on which, amongst others, Jim Rose has based his Report, states:

"In the UK, 'specialist dyslexia teaching' may be regarded as an umbrella term for the approaches that are used by teachers who have undergone specialist training and attained qualifications in the teaching of children and adults with dyslexia. These approaches may be summarised as being systematic, multisensory and phonologically based."

### 2. Acceptance and use of Dr Singleton's work.

Much research has been done on how different phonological approaches affect reading ability and Dr Singleton has drawn it together, making it easy for Mr Rose to access it.

### Page 11 of the Rose Report states:

"There is a well established evidence-base showing that intervention programmes which systematically prioritise phonological skills[10] for reading and writing are effective for teaching reading to children with dyslexia." [11] (Note 11 states: "Singleton, 2009")

### While Page 57 states:

"This chapter summarises evidence showing that interventions promoting phonological skills are effective for teaching children with Dyslexia." [71] (Note 71 also references: "Singleton, 2009").

### 3. Questions re: the benefit of a phonological approach for dyslexia.

However, we see little evidence to suggest that a phonologically based intervention programme is actually beneficial to the dyslexic reader, though it may well help up to 25% of "at risk" students.

There seems to be a problem with much of the research because little of it differentiates between the dyslexic and the non-dyslexic learner. The work of Torgesen, Wagner, Rashotte, Rose *et al* (1999), also cited in the *Rose Report*, compares the usefulness of three different phonologically based methods—it does not mention dyslexia.

### 4. The North Yorkshire Reading Intervention Project Report

The North Yorkshire Reading Intervention Project Report identified the poorest 8% of readers in year 1, from 16 schools, who were then given small-group combined with one to one intervention using a combination of synthetic phonics and reading recovery techniques.

At the point of choosing which children to target, dyslexia is not an issue; at the end of the report the question is raised as to whether this intervention is useful for children with dyslexia and acknowledges that:

"for a minority of children, reading problems are severe and persistent and response even to effective, well-implemented intervention is poor."

25% of the children in this study did not respond and went on to demonstrate severe and persistent reading problems. These are the children who are likely to be dyslexic.

### 5. Further questions re: dyslexic benefit from phonics.

Unless another study were undertaken which screened for dyslexia and worked with poor readers known to be dyslexic, it is not possible to accurately predict, but this study certainly suggests that it is possible that phonological intervention is not at all helpful for those who are dyslexic. Certainly, in the 25% of non-responders, their reading ability went down, rather than improving following the intervention.

6. Lack of intervention available for non-responders.

Despite the call to say, "No to Failure" there are no recommendations as to what can be done to support these children and Rose himself states in the report:

"However, each of the above studies identified a number of children who did not respond well to the intervention. Factors which place children at risk of not responding included: having the lowest levels of phonological skill at the start of the intervention; being rated low by their teachers on measures of attention and behaviour, and experiencing adverse socio-economic circumstances.'

The Rose recommendations are unlikely to help in the more severe cases of dyslexia—the Yorkshire study implies that 25% of their subjects did not respond and there is nothing suggested in the Report as to how they can be helped.

### 7. Lack of breadth evident in consultation.

We also have concerns about how widely the report consulted—There is no mention of the whole wealth of writers such as Howard Gardner, Linda Silverman etc who have contributed to the left-brain/right-brain and multiple intelligences debate over the past 10-15 years. DLF is a non-profit organisation representing a prominent set of methods that have existed for 28 years; we were not consulted, and submissions by a number of our clients have not been taken into account.

8. A solution, and supporting research based evidence, not considered.

Our programme consistently helps those for whom other interventions, particularly phonological interventions, have failed.

There is research based on a model of our method designed for use in a school setting for beginning readers that demonstrates its efficacy and superiority over a phonologically based approach, across the board.

The information can be accessed on line here:

http://www.davislearn.com/research.htm

and here can be found research based on the methods used with slightly older children:

http://english.rene-engelbrecht.co.za/research/

I would be more than happy to attend in person and give evidence to the Select Committee.

October 2009

### Memorandum submitted by the National Union of Teachers (LI 02)

1. The National Union of Teachers (NUT) welcomes the opportunity to respond to the evidence check. This submission focuses on Every Child a Reader and Making Good Progress.

### EVERY CHILD A READER

- 2. The Every Child a Reader (ECaR) programme is the latest in a long line of intervention programmes managed by the National Literacy Strategy (NLS). Before considering ECaR in detail, it is worth considering the evidence base for the National Literacy Strategy itself.
- 3. The NLS advocated consistently, until fairly recently, both a whole word and a phonics method of teaching reading, requiring the teaching of both decoding skills and the development of a sight vocabulary. The research rationale was never made explicit to teachers, however, and many would have been unaware of the reasons for this approach. Equally, few would be aware that when devising the Strategy, programmes and practices from around the world were considered. The NLS's shared reading approach and types of texts studied, for example, were heavily influenced by the Australian First Steps programme.
- 4. Arguably the most significant piece of research that was used to inform the NLS "Framework for Teaching" was the evaluation of the National Literacy Project (NLP). The NLP was introduced in 1996 as a model of teaching and professional development intended to raise standards in literacy, drawing on other similar international programmes that had a proven track record. The independent research evidence used to push for the NLS1 only appeared, however, several months after the implementation of the NLS framework in September 1998. Such post-hoc justification cannot be described as evidence-based policy
- 5. Similarly, the publication by Government of the evidence base for the NLS<sup>2</sup> took place a year after its implementation, limiting any meaningful critical discussion of its merits. This publication was accompanied by a number of references to research reviews which supported the approach taken to the teaching of reading by the NLS. Most of this evidence, however, came from the USA rather than the UK.

Sainsbury M et al, Evaluation of the National Literacy Project, NFER, 1998.

Beard R, NLS: Review of Research and Other Related Evidence, DfEE/University of Leeds, 1999.

Reviews which reached different conclusions were not included. With such an unstable evidence base on which to proceed with a major national initiative, the focus of the Committee's enquiry is welcome, if long overdue.

- 6. In addition, a key feature of the NLS was the evaluation carried out by a team at the Ontario Institute for Studies in Education (OISEUT). An evaluation is no substitute for research to inform the development of a funded national initiative. The various intervention programmes which have sprung from the NLS, as well as whatever replaces mainstream literacy teaching support when the Strategies are discontinued, should incorporate future research, in collaboration with schools and higher education institutions, to ensure growth.
- 7. ECaR is informed, in part, by the well-respected and much-evaluated Reading Recovery programme developed by Marie Clay in New Zealand, which aims to reduce literacy failure in education systems through early intervention. This has been subject to a large number of national and international evaluations of its effectiveness since it was first established in 1976–77 and has been the focus of an annual national monitoring programme since 1984. In addition, it is a structural feature of Reading Recovery implementation to report annually on the progress and outcome data for every child receiving tuition. This information is used to monitor effectiveness, ensure a high quality of delivery, and to continuously assess and re-adjust the design of the implementation.
- 8. The ECaR project was first run as a pilot scheme by the KPMG Foundation between 2005 and 2008. Its main aims included securing sustainable investment for widespread implementation of Reading Recovery and exploring how intensive support in reading could be provided in the most cost-effective way nationally.
- 9. In the ECaR programme, children in Year 1 and 2 who are struggling to learn to read and to write may be offered a programme of interventions, of which Reading Recovery is one element. Unlike the "pure" model of Reading Recovery, not all children receive individual tuition from specially trained teachers, only those who are experiencing the most difficulty. The rest are typically taught by support staff, who will have received some training from the specialist Reading Recovery teacher in school. ECaR may also be delivered to groups of children, rather than on a one-to-one basis. Whilst this obviously addresses the brief regarding cost-effectiveness, it ignores the particular benefits identified in the research literature by these two central features of Reading Recovery.
- 10. Another key difference between ECaR and Reading Recovery is that, for the latter, nominated teachers undertake a year-long in-service course run by a Reading Recovery tutor in their area. During fortnightly sessions throughout the course, teachers are trained in the use of specific Reading Recovery teaching procedures, while working daily with a minimum of four children. Although ECaR teachers also undertake a year's Reading Recovery training in England, they are expected to cascade their training to other colleagues, including support staff, who will be responsible for the delivery of other ECaR intervention programmes.
- 11. There is certainly a substantial body of research literature which suggests that the most effective interventions are those offered to children in their first years of schooling. The NUT supports the longer-term strategy of ECaR, of identifying children who are failing to make acceptable progress at the end of Year 1 and providing intensive support to help them "catch up". The NUT has serious concerns, however, that the programme "is designed to get a child with their needs back to age appropriate expectations" and that children are identified as suitable for Wave 2 ECaR if they are "just below national expectations", with Wave 3 designated for children who are either "struggling" or "lowest attaining".
- 12. The Government's concept of "age appropriate expectations" is worrying in relation to ECaR because of the age of the children who will be subject to it. Due to developments in neurophysiology there is now increasing evidence to support the view that up to the age of eight, children develop at markedly different rates or, as some more experienced teachers might describe them, some children are "late bloomers". It is essential that a clear distinction is made between those who genuinely do have cognitive difficulties and those who simply require a little more time.

### MAKING GOOD PROGRESS

- 13. Making Good Progress (MGP) contains potentially radical proposals for the future of assessment and personalised learning. The NUT believes, however, that, despite the DCSF's assertion in the initial Making Good Progress consultation document, that "the issues . . . should be the subject of a larger and wider agenda which should involve debate across the school system", any potential for such a debate is diminished by its insistence on maintaining a high stakes approach to assessment and accountability. The NUT is not aware of and has not seen any research evidence which the DCSF may have used to establish the MPG framework.
- 14. The nature and purpose of summative assessment has been the subject of intense debate for 20 years, as the initial consultation document itself acknowledged. Research evidence has overwhelmingly concluded that the current high stakes system of testing and assessment undermines children's learning. That successive governments have chosen to ignore, not only overwhelming research evidence, but developments in assessment in Wales and Scotland, is simply a failure of evidence informed policy-making.

- 15. MGP seems to be based on the DCSF's extraordinary assertion that the "framework of tests, targets and performance tables have helped drive up standards in the past decade". There is no evidence that such a framework has achieved this objective.
- 16. The establishment of MGP was driven by the DfES's concern that "the rate of progress . . . has slowed in the past few years". Again, it is unclear why the Government thinks that improvement takes place consistently and incrementally.

October 2009

### Memorandum submitted by the Economic and Social Research Council (LI 03)

The ESRC appreciates the opportunity to contribute to this evidence check.

Please find enclosed a summary of research findings from the ESRC in the area of learning and teaching research, in response to the evidence check under the literacy interventions inquiry.

SUMMARY OF RESEARCH FINDINGS SUBMITTED BY THE ECONOMIC AND SOCIAL RESEARCH COUNCIL, October 2009

- 1. The Economic and Social Research Council (ESRC) is one of seven UK Research Councils, and is the UK's largest funding agency for research and postgraduate training relating to social and economic issues. It provides independent, high quality research likely to have scientific, economic and social impact.
- 2. The ESRC is an independent organisation, established by Royal Charter, and receives most of its funding through the Department for Business, Innovation, and Skills.
- 3. The below response is based on a selection of relevant projects funded by the Economic and Social Research Council pertinent to teaching and learning research.
- 4. In collaboration with a number of partners,<sup>3</sup> the ESRC funds the Teaching and Learning Research Programme, 4 which was established in 1998. The programme aims to perform and promote excellent educational research and ensure that it is used to enhance learning.
- 5. The Role of Awareness in the Teaching and Learning of Literacy and Numeracy in Key Stage 2. Professor Terezina Nunes, Oxford Brookes University. In her research funded by the ESRC, Professor Nunes found that when important principles of literacy and numeracy were taught in the classroom, so that the children were made consciously aware of them, the children made more progress than when they were left to depend on their existing knowledge. She also identified certain teaching methods, which helped the children retain their knowledge more effectively. A summary of these findings is attached.<sup>5</sup>
- 6. Other research funded by ESRC in this area includes Linguistic Factors, Phonological and Orthographic Processing in Dyslexia by Professor Usha Goswami at Cambridge University. This project provides important information required for a deeper understanding of the factors underlying the development of phonological awareness in dyslexic children, and how these factors impact their reading and spelling development. A summary of findings is attached.<sup>6</sup>
- 7. The ESRC also funds two major research centres on Bilingualism<sup>7</sup> and on Deafness Cognition and Learning (DCAL),8 both of which have considered factors contributing towards literacy and the assessment of literacy.

Other suggested contacts:

- Professor Usha Goswami at Cambridge University is a specialist in the areas literacy, learning and dyslexia. She is Professor of Education and Director of Cambridge's Centre for Neuroscience in Education. http://www.educ.cam.ac.uk/people/staff/goswami/
- Professor Colin Baker is working on bilingual education and is a co-director of the ESRC Centre for Research on Bilingualism in Theory and Practice at Bangor University. http:// www.bilingualism.bangor.ac.uk/people/colin baker.php.en

http://www.tlrp.org/proj/phase11/phase2h.html

Not printed. Available at: http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/Plain\_English\_Summaries/knowledge\_ communication learning/learning/index541.aspx

http://bilingualism.bangor.ac.uk/

Funding partners for the Teaching and Learning Research Programme: Higher Education Funding Council for England, Higher Education Funding Council for Wales, Welsh Assembly Government, Scottish Government, Department for Employment and Learning Northern Ireland, Department for Education Northern Ireland and Department for Children Schools and Families.

Not printed. Available at: http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/Plain\_English\_Summaries/knowledge\_ communication\_learning/communication\_information/index328.aspx

http://www.dcal.ucl.ac.uk/

 Professor Gary Morgan is leading a language development theme at the ESRC Deafness Cognition and Learning Centre at University College London. http://www.dcal.ucl.ac.uk/team/ gary\_morgan.html

October 2009

### Memorandum submitted by Bonita Thomson (LI 04)

DEFINITIONS OF DYSLEXIA: THE LACK OF UNDERSTANDING OF WHAT DYSLEXIA IS AND ITS IMPLICATIONS FOR CHILDREN, YOUNG PEOPLE AND ADULTS IN LEARNING

- 1. Declaration of interest. I am a practitioner and consultant working with adult dyslexics at college, university, in the workplace and out-of-work. My views are based on evidence of the difficulties my clients face, most of whom have had their dyslexia diagnosed too late in compulsory education, or not at all.
- 2. Problems with reading and writing are symptoms of dyslexia, not dyslexia itself. They can be indicative of a number of other things that impact on education such as EFL, deafness, problems at home. Most dyslexic people can read and write adequately but they struggle to learn these skills and then use them inefficiently. Largely this is because, in our education system, they have to begin to learn to read before they have learnt and thoroughly developed the pre-reading skills such as differentiating speech sounds, syllables, onsets and rimes. (Ref the recent Cambridge Primary Review.)
- 3. There are many definitions of dyslexia. In my experience working with post-16s, I find this the most useful:

Developmental dyslexia is:

- a genetically inherited neurological difference;
- that affects the efficiency of the cognitive processes underlying learning and performance in conventional educational, work and life settings; and
- it has particular impact on verbal and written communication, as well as organisation, planning and adaptation to change. It is independent of intellectual ability.
  - After McLoughlin et al, The Adult Dyslexic Interventions and Outcomes. (Whurr)
- 4. *Early intervention*. Dyslexia needs to be identified as early as possible, preferably before the symptoms show up in literacy development. Then an individual programme should be put in place which is multisensory, structured and cumulative—this approach is proven.
- 5. Competence in reading opens up the world for children. All the while they are struggling with their reading, then it is this which interferes significantly with the acquisition of knowledge.

October 2009

### Memorandum submitted by Dr Simon Gibbs (LI 05)

EVIDENCE CHECK: LITERACY INTERVENTIONS AND DYSLEXIA

Declaration of Interests

Prior to taking up my current post in Newcastle I worked as a Senior Educational Psychologist for North Yorkshire County Council. In that role, and as an affiliate of the Centre for Reading and Language at the University of York, I was involved in the implementation and evaluation of "Reading Intervention" in North Yorkshire. I provided summary evaluation reports of this for senior officers and elected members. I was also one of the joint authors of papers published in peer-reviewed scientific journal that reported this work for the academic community.

### SUBMISSION

- 1. As acknowledged in the *Rose Report* (2009) there is good evidence that the development of literacy (word reading and spelling) is associated with the development of underlying phonological awareness (the ability to detect and manipulate meaningful "chunks" of sound within the salient oral language).
- 2. Children (and adults) who, for whatever reason, experience difficulties or delays acquiring phonological skills are likely to show delays and/or difficulties in developing literacy.
- 3. There is now substantial evidence that intervening to promote the development of phonological skills can very often lead to significant improvements in literacy (Bradley and Bryant, 1978; 1983; Bryant and Bradley, 1985; Hatcher, Hulme and Ellis, 1994).
- 4. However, it is also clear that there is a small proportion of children who, unfortunately, show little if any response to intervention (Brooks, 2007; Hatcher *et al*, 2006b).

- 5. There is limited evidence about the cost-effectiveness of interventions. Some, Every Child a Reader, for instance, that requires delivery by qualified teachers, are almost inevitably expensive.
- 6. Reading Intervention (Hatcher et al, 1994; Hatcher et al, 2004) is theoretically and practically close to Reading Recovery and Every Child a Reader intervention.
- 7. Reading Intervention can be successfully delivered by appropriately trained teaching assistants (Hatcher et al 2006a,b). The evidence from those studies has shown that Reading Intervention can promote significant change in children's literacy.
- 8. Evidence from the implementation of Reading Intervention in North Yorkshire indicated that children made over seven months progress in reading development in 10 weeks. The cost of this was less than £30 per month of progress per child; or, approximately £7.95 a 20-minute session. There is, therefore, some justification for claims that Reading Intervention, delivered by teaching assistants may be highly costeffective.
- 9. The Every Child a Reader initiative is implemented by qualified teachers rather than teaching assistants. There may be good arguments in favour of delivery of any educational intervention by appropriately qualified teachers.
- 10. However, it needs to be noted that implementation of the Every Child a Reader initiative will be costly and not necessarily yield any better value for money than other well-founded interventions. It is notable that Every Child a Reader has not yet been subject to the same rigorous systematic evaluation as has, for example, Reading Intervention in North Yorkshire.
- 11. There are no theoretical grounds for suspecting that Every Child a Reader would not yield significant improvements in children's literacy. However, in order to ensure validity, reliability and efficacy, a robust comparison of Every Child a Reader and other well-founded interventions (for example, Reading Intervention) should be considered. The results of such work would help to ensure cost-effectiveness before committing resources to a particular intervention. (This would be considered a sine qua non for a medical intervention.)
- 12. However, it is also important to recognise that, unfortunately, there may not be a "magic bullet" that will enable any or all children to acquire total competence in literacy—at least as far as present understanding permits. Although the Rose report contains a number of appropriate caveats, the "take home" message that many may take from it is that the Government is expecting to be able to address "dyslexia" with tangible degrees of success in all cases.
- 13. Yet greater caution and realism may be justified. I would urge a broader understanding of problems associated with the notion of "dyslexia" (see Elliott and Gibbs, 2008) if we are to avoid perpetuating unhelpful categorisation and hostages to fortune.
- 14. As noted above, there is evidence that some children may not respond to reading interventions with any noticeable effect. Indeed, as is noted in the Rose Report, adverse effects on children's emotional wellbeing may result from an over emphatic determination to "cure" the child. In such circumstances other measures are essential in order to sustain and enhance children's sense of well-being and full meaningful participation in their educational and social development. In my view this aspect of the "problem" is less well understood and deserves greater attention.

### REFERENCES

Bradley, L and Bryant, PE (1978) Difficulties in auditory organisation as a possible cause of reading backwardness. Nature, 271, 746–7.

Bradley, L and Bryant, PE (1983) Categorising sounds and learning to read: A causal connection. Nature, 301, 419-421.

Brooks, G (2007). What works for pupils with literacy difficulties? London: DCSF.

Bryant, PE and Bradley, L (1985) Children's Reading Problems Oxford: Blackwell.

Elliott, J and Gibbs, S (2008) Does dyslexia exist? Journal of Philosophy of Education 42, (3–4), 475–491.

Hatcher, PJ, Hulme, C and Ellis, AW (1994) Ameliorating early reading failure by integrating the teaching of reading and phonological skills: The phonological linkage hypothesis. Child Development, 65, 41–57.

Hatcher, PJ, Hulme, C, and Snowling, MJ (2004). Explicit phoneme training combined with phonic reading instruction helps young children at risk of reading failure. Journal of Child Psychology and Psychiatry, 45, 338-358.

Hatcher, PJ, Hulme, C, Miles, JNV, Carroll, JM, Hatcher, J, Gibbs, S, Smith, G, Bowyer-Crane, C and Snowling, M (2006a) Efficacy of Small Group Reading Intervention for Beginning Readers with Reading-Delay: A Randomized Controlled Trial. Journal of Child Psychology and Psychiatry, 47(8), 820-827.

Hatcher, PJ, Goetz, K, Snowling, MJ, Hulme, C, Gibbs, S and Smith, G (2006b) *Evidence for the effectiveness of the Early Literacy Support Programme*. British Journal of Educational Psychology, 76, 351–367.

October 2009

### Memorandum submitted by the Association of Teachers and Lecturers (LI 06)

- 1. ATL, as a leading education union, recognises the link between education policy and our members' conditions of employment. Our evidence-based policy making enables us to campaign and negotiate from a position of strength. We champion good practice and achieve better working lives for our members.
- 2. We help our members, as their careers develop, through first-rate research, advice, information and legal support. Our 160,000 members—teachers, lecturers, headteachers and support staff—are empowered to get active locally and nationally. We are affiliated to the TUC, and work with government and employers by lobbying and through social partnership.

### ATL POLICY

3. ATL believes that teachers as professionals must be recognised for their knowledge, expertise and judgement, at the level of the individual pupil and in articulating the role of education in increasing social justice. Within light national parameters, development of the education system should take place at a local level: the curriculum should be developed in partnership with local stakeholders; assessment should be carried out through local professional networks. Schools are increasingly encouraged to work collaboratively to offer excellent teaching and learning, and to support pupils' well-being, across a local area. Accountability mechanisms should be developed so that there is a proper balance of accountability to national government and the local community, which supports collaboration rather than competition.

### ATL RESPONSE

- 4. ATL is pleased to offer a perspective from teachers on the government's use of evidence in developing literacy interventions. In the limited time we have in which to write this submission, we highlight issues that we have previously raised with Government about its use of evidence. We focus on policy on literacy interventions for school children with reading difficulties. Copies of consultation responses are appended to this submission.
- 5. We believe that the Government's focus on identifying "best practice" in teaching reading has led to an assumption that there is only one effective model. While there is evidence that particular methods work in particular cases, a focus on individual forms of intervention has meant that evidence showing that a range of different methods should be considered has been ignored. For example, the Australian National Inquiry into the Teaching of Literacy (2003) states that children learn best when teachers adopt an integrated approach that explicitly teaches phonemic awareness, phonics, fluency, vocabulary knowledge and comprehension and that teachers require a range of strategies upon which they can draw, that meet the developmental and learning needs of individual children.
- 6. Thus, while there may be a role for government in pointing out methods that are effective, the tendency to require wholesale adoption of particular methods has an adverse effect. Where a single method is advocated, and inspected by Ofsted, teachers are expected to focus their own learning on the "government method", and lose opportunities to learn about any other strategies. Any child who does not respond to this method is likely to be labelled as "failing", when in fact the reliance on a single strategy itself should be held under scrutiny.
- 7. Unfortunately, even if it were the case that a single model of teaching reading is the most effective in all cases, advances in our understanding of the brain and the ways in which children learn are likely to lead to the identification of new strategies, or indeed the reinstatement of old ones. Governments often find it difficult to turn quickly in the face of new evidence.
- 8. Focus on single issues in teaching, such as the teaching of reading, can lead to a narrowing of curriculum, assessment and pedagogy. The 1997 New Labour focus on developing a literacy strategy led both to a narrowing of the curriculum overall in primary schools, and to a narrowing of the English curriculum. It also led to a loss of focus on speaking and listening, and on sustained dialogue and shared thinking, all of which evidence shows are vital for improving literacy, for wider learning, and for effective citizenship.
- 9. We believe that questions of whether government policy is evidence-based should look not only at the evidence in support of individual educational policies but also at the impact of those policies elsewhere, including the impact on children and their learning, the development of curriculum, testing and accountability measures, and the professionalism of teachers.
- 10. We have concerns about the particular evidence that the government uses in developing its policies, how it comes across the evidence, and how critically it analyses that evidence. The recent Rose review of the teaching of literacy appeared to have come about because of a single research study in Clackmannanshire,

results of which were disputed by many academics. Many others disputed whether the results could be adapted wholesale or translated into single teaching methods. Rose himself stated in his interim report that a systematic approach to teaching phonics was the best way forward. We would be interested to know how "systematic" became "synthetic" in the government's new literacy strategy.

11. We have concerns about the government's apparent desire to make teaching "teacher-proof" by identifying effective strategies for teaching and then specifying them in step-by-step detail.

October 2009

### Memorandum submitted by Dr Gordon Rugg and Sue Gerrard (LI 08)

I enclose our submission to the Literacy Interventions Evidence Check, Gordon Rugg is a Senior Lecturer in Computer Science at the University of Keele and Sue Gerrard is an independent researcher affiliated to the Knowledge Modelling Group at Keele. This submission is made in a private capacity.

### DECLARATION OF INTEREST

Dr Gordon Rugg is a Senior Lecturer in Computer Science and Sue Gerrard is an independent researcher affiliated to a university research group. We have been examining causal reasoning in academic research, to identify errors or omissions that might lead to misleading conclusions. We have trialled our method in fields as diverse as cryptography and autism.<sup>9, 10</sup> Our preliminary examination of literacy research has highlighted two areas of potential confusion; the level of abstraction (or detail) at which interventions are assessed, and unfounded assumptions about the causes of reading difficulties.

### 1. Level of Abstraction

- 1.1 Reading is a complex, compiled cognitive skill requiring accurate fine-grained discrimination between visual symbols, and between the speech sounds they represent.
- 1.2 Reading difficulties can be categorised at several levels of abstraction from high-level, eg reading age, to low-level, eg specific abnormalities in sensory processing. High-level interventions such as Making Good Progress are useful for some purposes, but do not give insights into lower-level reading difficulties such as poor visual tracking, or ability to decode symbols for some speech sounds but not others. Deficient phonological processing has been implicated in the selection of candidates for a modified Reading Recovery programme and was largely remediated by it.11

### 2. Assumptions about the Causes of Reading Difficulties

### 2.1 Dyslexia

There are three main views:

- 2.1.1 A discrete developmental condition showing individual variations. This concept has arisen to differentiate children with bio-medical causes for reading problems, from those who might be poorly taught or lack parental encouragement. It does not follow that the bio-medical cause is the same in all dyslexic children. The concept of a discrete condition has been reinforced by the development of diagnostic tests for dyslexia. These can help identify the nature of reading problems, but the use of a diagnostic threshold (either as a result of the test designer's assumption that dyslexia is a discrete condition, or as a cut-off point for funding educational support) has strengthened the notion that there is a boundary between children who "have dyslexia" and those who don't.
- 2.1.2 A spurious construct that medicalises the child and marginalises psycho-social factors. Inconclusive or contradictory findings in relation to bio-medical causes for reading difficulties can be seen as indicating that such causes might not exist.<sup>12</sup> Inconclusive or contradictory findings often arise from an assumption, implicit in the research design, that all children diagnosed with dyslexia have the same bio-medical cause for their reading difficulties. A key criterion in the selection of research participants is a diagnosis of dyslexia, not a shared pattern of reading difficulties. Lumping dyslexic participants together indiscriminately can lead to the premature abandonment of useful lines of enquiry. If, for example, the majority of dyslexic children are found to have phonological processing abnormalities, possible visual causes could be overlooked. 13 It

Rugg, G (2004). An elegant hoax? A possible solution to the Voynich manuscript, Cryptologia, 28, 31-46.

<sup>10</sup> Gerrard, S and Rugg, G (2009). Sensory impairments and autism: A re-examination of causal modelling, Journal of Autism and Developmental Disorders, 10, 1449-1463

Iversen, S and Tunmer, WE (1993). Phonological processing skills and the Reading Recovery Program, Journal of Educational Psychology, 85(1), 112-126.

Thomas, G and Loxley, A (2001). Deconstructing special education and constructing inclusion, Milton Keynes, Open University Press.

Thompson, J (undated). Struggling to read: The rhythms and sounds of dyslexia. Usable Knowledge Q&A, Harvard Graduate School of Education. http://www.uknow.gse.harvard.edu/learning/LD301-208.html

is important to note that using randomised controlled trials (RCTs) will not resolve the problem, if the RCTs assume that dyslexic groups are homogeneous. However, RCTs could be used to identify sub-groups within the dyslexic population.

2.1.3 An umbrella term denoting significant difficulty in learning to read for a range of possible reasons, some of them organic in origin. Evidence suggests that many reading difficulties are due to anomalies in visual and/or auditory information processing. The "and/or" is critical. One group could have visual problems, another auditory problems, and a third, both.

### 2.2 Direction of causality

Dyslexic children have been found to have abnormalities in parts of the brain involved in reading. It is often assumed that abnormal neurological development leads to anomalies in auditory or visual processing that in turn lead to reading difficulties. However, the opposite direction of causality is possible; that abnormalities of the sense organs or of initial processing of sensory information might mean that the relevant parts of the brain develop abnormally over time. <sup>14</sup> Eyes and ears are complex organs, so one would expect to see a range of congenital abnormalities in a diverse population. In addition visual and aural pathways interact early in information processing (eg abnormalities of the semi-circular canals affect eye movements via the vestibular—ocular reflex). The skills required for accurate reading are fine-grained, so ostensibly minor visual or auditory abnormalities can significantly impair reading acquisition. Subtle conditions such as nystagmus or hyperacusis are not looked for in standard visual and auditory screening tests. Yet prevalence rates of 0.1% <sup>15</sup> and 8% <sup>16</sup> respectively have been reported.

### 3. RECOMMENDATIONS

We recommend that literacy interventions be directed at low-level sensory abnormalities, that interventions be assessed for their impact on visual and auditory discrimination, and that assessments take into account variations between individuals rather than assume a homogeneous population. Also that children showing significant difficulties with reading by the end of Year 1 receive a detailed examination of visual and auditory function from an orthoptist and specialist audiologist. Not all visual and auditory anomalies are treatable but awareness of a child's sensory profile would allow tailored support to be put in place early.

October 2009

### Memorandum submitted by Jennifer Chew (LI 09)

### 1. Main Points

- Reading Recovery, the government's chosen Wave 3 intervention for children with literacy difficulties, is inconsistent with the government's chosen approach for Wave 1 teaching; and
- no information has been provided about the evidence which led the government to choose Reading Recovery rather than other interventions.

### 2. Introduction to Submitter

- I have no commercial connection with any literacy programme, but I was a member of the team which produced the Government's programme, Letters and Sounds. I therefore have an interest in seeing that there is consistency in the way all children are taught to read and write.
- Until I retired in 2000, I taught at a sixth form college and had a particular interest in students' literacy problems.
- Since retiring, I have been a governor at a junior school and have helped with reading on a voluntary basis for several hours a week, thus becoming familiar with the strengths and weaknesses of young readers, particularly those aged seven to eight.
- 3. The Rose Review (2006) recommended that "The knowledge, skills and understanding that constitute high quality phonic work should be taught as the prime approach to learning to decode (to read) and encode (to write/spell) print" (p 70). Schools are free to deliver this Wave 1 teaching using Letters and Sounds or other programmes based on similar principles. The government recognises, rightly, that some children may need extra teaching in small groups or individually (Wave 2) and that children for whom this is still not enough may need intensive one-to-one intervention (Wave 3).

Mareschal, D, Johnson, M, Sirois, S, Spratling, M, Thomas, M and Westermann, G (2007). Neuroconstructivism: How the Brain Constructs Cognition, vol 1. Oxford: Oxford University Press.

Forsmann, B and Ringnér, B (1971). Prevalence and inheritance of congenital nystagmus in a Swedish population, Annals of Human Genetics, 35, 139–147.

<sup>&</sup>lt;sup>16</sup> Baguley, DM (2003). *Hyperacusis*, Journal of the Royal Society of Medicine, 96, 582–585.

- 4. Wave 3 is a cause for concern because the intervention supported by the government (Reading Recovery) is inconsistent with the government's own recommendation of "high quality phonic work" for Wave 1. In Reading Recovery, some attention is given to the role of phonics in spelling, but phonics is not "taught as the prime approach to learning to decode (to read)..." as recommended by Sir Jim Rose.
- 5. Teaching phonics-for-reading involves teaching children to read words by sounding out and blending: they look at the graphemes in each word (single letters, digraphs etc) from left to right, say sounds for them, and blend the sounds into a normal word-pronunciation. By contrast, Reading Recovery teaches children to try other strategies first, in accordance with the view of its author (the late Marie Clay) that even "five year old beginners" need to use such things as "the meaning", "the sentence structure" and "first and last letter cues" 'before they resort to left to right sounding out of chunks or letter clusters or, in the last resort, single letters" (The Early Detection of Reading Difficulties, 1972, emphasis added). This continues to be the Reading Recovery approach—there is little or no emphasis on "left to right sounding out".
- 6. The strategies taught in Reading Recovery are explicitly warned against in the government's 2006 "core position papers" (page 12) and the warning is repeated in Letters and Sounds (see Notes of Guidance, page 12). The conflict between recommendations for Waves 1 and 3 has been noted by Dr Chris Singleton, who wrote the following in his report Intervention for Dyslexia May 2009): "Since the 'simple' view of reading is the theoretical framework that currently underpins Wave 1 phonics teaching, it is difficult to understand current government endorsement of Reading Recovery as a Wave 3 intervention because this endorsement is in conflict with what the National Strategies team is now promoting as quality first teaching". The DCSF does not address the problem of this conflict in the response provided to the Science and Technology Committee.
- 7. The DCSF was also asked (Q2) "What literacy and numeracy interventions have been considered? What evidence has the Government used to determine which are the most cost effective measures?" The response is again unsatisfactory: it does not name Reading Recovery or any other specific literacy interventions, but Reading Recovery is the only programme that is government-funded as part of Every Child a Reader, so evidence should be available that it was chosen only after being compared with other interventions and found to be more cost effective. Information has not been provided about any comparisons which were made, however. Other literacy interventions are available which are cheaper than Reading Recovery, which are more consistent with Wave 1 teaching, and which arguably produce better results, especially if implemented at the same level of intensity as Reading Recovery—ie by a well trained teacher working one-to-one with each child for thirty minutes a day five days a week. If the government did consider alternatives before providing funding for Reading Recovery, it should be able to say which the alternatives were, how they were investigated, and what evidence led to the conclusion that they were less cost-effective than Reading Recovery.
- 8. Further investigation is needed of (a) why the government supports a literacy intervention for Wave 3 which is inconsistent with the approach it supports for Wave 1 and (b) which literacy interventions other than Reading Recovery were considered and what evidence was obtained on cost-effectiveness.

October 2009

### Supplementary memorandum submitted by Jennifer Chew (LI 09a)

- 1. Having attended both sessions and studied the available recordings and transcript carefully, I believe that the case for Reading Recovery (RR) has not been made. In particular:
  - it was rolled out before any "gold standard" research had proved that it was the best intervention for children with literacy difficulties;
  - although the pilot study by Burroughs-Lange compared RR outcomes with those of other interventions, no checks were made on whether the other interventions were being implemented as intensively as RR; and
  - some international research has been very critical of RR (eg the article by Reynolds, Wheldall and Madelaine cited by Graham Stringer on 9 November).
- 2. Claims have been made that more phonics has been incorporated into RR to bring it into line with the Rose recommendations, but I know of no evidence that this has been done in a satisfactory way. Videos currently available on Teachers TV show some isolated work on letter-sound correspondences, some application of phonics in spelling, and occasional use of partial letter-sound information for checking purposes in reading, but they do not show children reading words by systematically sounding out letters from left to right and blending the sounds, which is the way phonics needs to be applied in reading. See the following, for example:

http://www.teachers.tv/video/5473

http://www.teachers.tv/video/32874

http://www.teachers.tv/video/32875

Two of these videos were first published in March 2009, and all three are being shown again in November/ December 2009, so they must surely be regarded as showing RR in its most up-to-date form. If this is the way that more phonics is being incorporated, then RR is still not teaching children to apply phonics properly in reading. This raises questions about the answer given to Q9 by Jean Gross on 4 November, when she said that phonics is "essential" but "needs to be embedded in applying that phonic knowledge into reading books in a rich curriculum": for one thing, the way in which RR teaches children to apply phonic knowledge is not in line with the Rose recommendations for the first-time mainstream teaching of reading; for another thing, the occasional use letter-sound knowledge to check words after they have been identified in some other way is at best a very indirect and unsystematic way of applying phonic knowledge in reading.

3. RR's continuing indirect and unsystematic use of phonics merely for checking purposes in reading. rather than for the identification of words by sounding out and blending, is very much in line with the recommendations of Marie Clay, the deviser of RR Professor Chris Singleton comments on and quotes from her work as follows in his 2009 report Intervention for Dyslexia (p 96):

Clay (1979) described how "... the High Progress Reader even at six years .. reads with attention focused on the meaning. What he thinks the text will say is checked by looking for letter-sound associations" (p 2). She reiterated these beliefs in 1993: "The child checks language predictions by looking at some letters . . . can hear the sounds in a word he speaks (ie predicts) and checks whether the expected letters are there" (Clay, 1993b, p 41). Accordingly, in Reading Recovery lessons, children read real story books aloud to the teacher and, while reading, are encouraged to use context as the principal method of identifying words, to monitor for meaningfulness and make corrections only when necessary to make sense, and to use letter-sound clues sparingly in order to confirm context-based predictions (Clay, 1991; 1993b).

In the above-mentioned videos, we do indeed see children being encouraged to use "letter-sound clues sparingly" in order to check words which have first been "read" in some other way—eg by the use of context or pictures. In one case, a teacher commends a child for a good guess. If children were being taught to use phonics properly in reading, they would not need to identify words by relying on context, pictures or guessing.

- 4. On 9 November, the Minister, Diana R Johnson, said that even children at Level 3 at the end of Key Stage 2 could read Harry Potter books. In my experience, this is far from being the case. I am a governor at a Key Stage 2 school, and in June 2009, I made a point of listening to the reading of all 80 Year 6 children. I got them all to read the same passage (typed out on one side of A4) from a book that none of them knew. The Fog readability formula suggested that the passage required a reading age of just under 11 years. The results of the Key Stage 2 tests came shortly afterwards—only three of the children had Level 3 for reading, but none of them could have managed a Harry Potter book: all three stumbled a lot, misread many words, and took about twice as long to read the passage as the children who really could read Harry Potter books. A reading age test carried out by the school about a month before the children took the KS2 tests showed these three children as having reading ages of 8.0 years, 7.75 years and 7.75 years. Even among the children who achieved Level 4 for reading, there were some whose fluency was probably insufficient for the sort of sustained reading required at the Harry Potter level.
- 5. If further studies are to be carried out on RR they should involve fair comparisons with other interventions implemented at a similar level of intensity by people who are properly trained in the theory and practice of these interventions. Just having schools "doing things that schools normally do" (Jean Gross on 4 November in answer to Q37) is not good enough for this kind of comparison.

November 2009

### Memorandum submitted by Michael Lea (LI 10)

My submission covers the following points.

- 1. In making this submission I wish to draw the attention of the committee to the groundbreaking and seminal work into the teaching of literacy skills to dyslexics by the late Anna Gillingham. Anna Gillingham published her methods in the 50s and 60s.
- 2. I suggest that Anna Gillingham's remedial method not only is the gold standard for teaching dyslexics, but also provides the knowledge that cuts through the turf wars which have so bedevilled literacy teaching in this country, not only for dyslexics, but everyone.
- 3. I suggest that newspapers combined with TV and/or the Internet using U Tube can, at a profit to themselves and at no cost to the taxpayer, run a literacy course based on Gillingham for the benefit not just of our schoolchildren and our illiterate adults, but also our teachers.

I first became aware of dyslexia in 1987. As a professional musician I immediately recognized from my own experience both as a pupil and when teaching, that Anna Gillingham's methods worked. Since those days I've involved myself in the world of dyslexia, for instance as a member of the British Dyslexia Association: Music and Dyslexia Committee. I've contributed chapters to two books on music and dyslexia, and a chapter to one book on stress and dyslexia.

I hope the committee will recommend applying dyslexic teaching methods to the teaching of all children. I note that Orton/Gillingham teaching methods are well proven over a long period of time—often in a hostile climate. My expectation is that if Orton/Gillingham teaching methods are applied then 96% success across the complete range of pupils is to be expected. Further I expect success to be evident immediately from the first lesson onwards.

Worried parents might well hear after the first lesson as my wife did, "It's all right Mummy, Grammy can help me." This was what my son said after his first lesson from his grandmother.

The bottom line is that once I knew what worked, and why, I was unable as a parent to deny my children that teaching. Ever since I've done all I can to encourage others to take advantage of this knowledge. I suggest at every opportunity that once it is realised that so called dyslexic teaching methods work for everyone, to say or think differently is as difficult as calling black white or white black.

I am most grateful to the committee for looking into this subject.

### INQUIRY EVIDENCE CHECK: LITERACY INTERVENTIONS

- 1. In making this submission I wish to draw the attention of the committee to the groundbreaking and seminal work into the teaching of literacy skills to dyslexics by the late Anna Gillingham. Anna Gillingham published her methods in the 50s and 60s.
- 2. I suggest that Anna Gillingham's remedial method not only is the gold standard for teaching dyslexics, but also provides the knowledge that cuts through the turf wars which have so bedevilled literacy teaching in this country, not only for dyslexics, but everyone.
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### 4. Introduction and Definition

- 5. Back in 1925 Dr Samuel Orton, the American neurologist set out an outline for research into dyslexia. He postulated that dyslexia had a neurological basis. Only now with modern technology are his theories being proved. As well as outlining research goals Dr Samuel Orton commissioned and encouraged Anna Gillingham to research and publish a remedial method for teaching literacy skills that worked for dyslexics.
- 6. In a paper published in 1929, "the 'sight reading' method of teaching reading as a source of reading disability", Dr Samuel Orton looked for reasons why in one Ohio school district there were a number of children who failed to learn literacy skills while another Ohio school district was more successful in teaching literacy skills. It seems to me now that dyslexia is the result of inappropriate teaching.
- 7. More recently in 1990 Lieberman and Lieberman published in America a paper "whole language vs code emphasis: underlying assumptions and their implications for reading instruction". This paper analysed the educational theories of Professor Goodman. Professor Goodman's theories are known as the whole language teaching. At best Lieberman and Lieberman predicted a failure rate of around 25% using the whole language theory.
- 8. While Professor Goodman's whole language theory has been discredited in recent years, the practices enshrined in the method continue in many of our schools. The result is a national failure rate remarkably similar to Lieberman and Lieberman's predictions.
- 9. As far as defining dyslexia is concerned numerous attempts have been made to define dyslexia. For myself I await neurological scanning advances in the understanding of dyslexia and associated brain patterns for a definition. In the meantime it seems to me that whether 20 to 30% of our population is dyslexic, or 5% of our population is dyslexic, or none at all, everyone can benefit from Anna Gillingham's insights into how to teach literacy skills.
- 10. Gillingham is little known in this country at first-hand. Back in the 50s when Gillingham was invited to visit the UK, instead of coming herself, she sent her assistant Sally Childs. Sally Childs took the opportunity of coming here to develop her own system based on Gillingham, but not Gillingham itself. A number of methods resulted, all of which work to a degree. For instance Hickey, Brand, Miles, Hornsby and the more recent methods the committee is looking into all owe something more or less to Gillingham sometimes without direct knowledge of Gillingham.
- 11. I recommend studying Gillingham editions published during her lifetime because, sadly, it seems that recent "modernised" editions of Gillingham's method as published by Educators Publishing Service, have failed to understand fully Gillingham's insights. Put bluntly perhaps, but the truth.
- 12. In any discussion of teaching methods, words such as "phonics" and "multisensory" need clarification. I note that many opposing and contradictory teaching methods have laid claim to these words.

- 13. Phonics in this country means all too often, teaching the sound of the letters not the names. In contrast phonics in Gillingham, perhaps best called phonetics, means teaching "A Apple a", where "A" is the name of the letter, "Apple" is an example of the letter, and "a" the sound of the letter. Teaching the entire alphabet, the name of a letter, together with an example, and the sound, is the basic building block on which Gillingham proceeds to build step-by-step until the pupil is fully literate in reading, writing and spelling.
- 14. Multisensory teaching involves the pupil using all their senses to reinforce each other: for instance the pupil sounds out loud each letter as the pupil themself writes. I note in passing that the Victorians used chalk and slates, dip pens and inkwells—scratchy multisensory writing materials indeed.
- 15. It seems to me, with the possibility that swine flu will close our schools in the near future, that there is an opportunity to prepare for this eventuality by producing TV/Internet programs to enable pupils to learn from home. With these TV programmes available for access in every home, everyone, parents and children, will be able to see for themselves how literacy is being taught—or not taught.
- 16. I suggest that if these TV programmes in teaching literacy are based on Gillingham then they will work for everyone. There is good news here for, whether swine flu closes our school or not, teachers can teach themselves using these TV programmes. I note here that all teachers need to do is to stay just ahead of their pupils.
- 17. Even better I am suggesting that a newspaper, such as the *Sunday Times*, can run a weekly series showing how literacy can be taught effectively step-by-step, one week at the time, with success building on success. Given the need to buy basic teaching materials, flashcards and the like, in order to teach the Gillingham way, any newspaper running this literacy programme is bound to increase its circulation.
- 18. I am suggesting there are things to be done now by our existing cadre of teachers. (Even without resorting to slates and dip pens). I am suggesting that, even without the spur of swine flu, our teachers can teach themselves and our children simultaneously. All that is needed is guidance, guidance that the *Sunday Times*, or another newspaper, can provide at its own expense and profit. Success will be an immediate and the spur to further success.

October 2009

## Memorandum submitted by Geraldine Carter (LI 11)

The Government's Policy on Literacy Interventions for School Children with Reading Difficulties

1. The Government promotes *Every Child a Reader* (ECaR). Cost: more than one billion pounds over a decade. The "Whole Language" instructional basis contravenes the government's own advice:

"a model of reading which encourages switching between various searchlight strategies, particularly when phonic work is regarded as only one such strategy, all of equal worth, risks paying insufficient attention to the critical skills of word recognition which must first be secured by beginner readers."

Rose Report 116

2. The government directed a Synthetic Phonics' approach while also promoting contradictory instruction:

"Apart from using a whole language programme for reading intervention, an additional problem is that, in order to justify the considerable cost of their employment the RR (Reading Recovery (EcaR)] trained teacher/s in a school are being encouraged by the DCSF to 'impact on' the 'quality first' (Wave1) teaching, that is, influence the synthetic phonics teaching in the reception class, and on the literacy teaching throughout the school. This has the affect of changing the teaching of reading in the school back to MIXED METHODS. In addition, its use will undermine the still fragile confidence and knowledge-base of the majority of teachers who are new to using synthetic phonics."

Dyslexics.Org.UK.

(nb 'Dyslexics.Org. does not promote dyslexia programmes. It promotes rigorous Synthetic Phonics teaching for all children and provides a wealth of information).

3. With government backing for specialist dyslexia teacher training (2009), the Reading Recovery brief appears to have been hastily redrafted:

"Reading Recovery is directed at specific children, ie those who have moderate achievement on the FSP, without specific learning difficulty, those who will benefit from the intervention, the children who have not practised their phonic skills over the summer holidays and who are a little shaky on their phonics skills—it is not directed at children with moderate learning difficulties or children with ESL."

Times Educational Supplement 29 August 2009

This contradicts their initial brief—to work with "hardest to teach" children in Year 1.

THE EVIDENCE BASE FOR THE EVERY CHILD A READER AND MAKING GOOD PROGRESS PROGRAMMES

4. Initial "evidence" for ECaR success sprang from their use of the British Ability Scales, BAS, test leading to "on average, a gain of 21 months in reading age in five months of teaching which is well over four

times the normal rate of progress."

The test consists of common words:

the, up, he, you, box, at, said, out, jump, fish,

one, cup, wood, bird, clock, ring, water, window, men, light

oil, ship, running, dig, money, paper, gate, knock, heel, skin

Most would have been encountered numerous times during teaching sessions. Yet the ability to "read" (ie memorise) 23 out of 30 words was widely reported as representing the superiority of this mixed methods intervention and may have been key to ECaR's funding expansion.

(The BAS test is useful as part of a battery of tests when conducted by an independent educational psychologist. Common sense suggests effectiveness is negated as a measure of early reading progress when used as the sole criterion for "reading gains" for one-to-one tuition, and high-stake testing.)

5. Lacking rigorous controls, the evidence base for ECaR is questionable.

For instance, the US National Council on Teacher Quality report on teacher training schools'failure to teach reading states that "banded books" (ie the reading materials central to Reading Recovery instruction) are unacceptable: "The text was intended to cover some aspects of reading instruction but did not cover even one component of good reading instruction in an accurate and complete manner."

6. I put the following questions to Professor Slavin, Director Institute of Effective Education, University of York, on 30/9:

(Professor Slavin is co-author of Best-Evidence Encyclopedia which strongly recommends Reading Recovery.)

- (a) "Did control trials, conducted in mainstream synthetic phonics' schools, use extended synthetic phonics practice for remedial tuition? Were groups appropriately matched and allocated comparable one-to-one tuition?
- (b) Before embarking on any comparative synthetic phonics' trials were teachers/teaching assistants accorded intensive training by genuine synthetic phonics practitioners/experts to produce a fair and valid comparison?
- (c) What scientifically rigorous protocols were put in place?
- (d) What watertight tests (including those randomly allocated from a range of non-word tests, and spelling tests) were considered when introducing Reading Recovery?
- (e) Were UK tests conducted by external examiners independent of Reading Recovery?"

There has been no response.

# THE DEFINITION OF DYSLEXIA

- 7. The question is problematic. The British Dyslexia Association states: "Peruse ten different publications about dyslexia and you will come across 10 different definitions."
- 8. "The epidemic began to be noticed in the early 1970s and has grown to affect 10% of primary school children. The offices of therapists are flooded with dyslexics. But with few exceptions these children do not have serious functional disorders. In thirty working years, my clinic received, among hundreds of poor readers, about 15 dyslexics. We thus have a true epidemic of pseudo-dyslexia."

Translation of Colette Ouzilou, Dyslexie, une vraie-fausse épidémie, Presses de la Renaissance, 2001.

## THE EVIDENCE BASE FOR DIAGNOSING DYSLEXIA AND TEACHING DYSLEXIC CHILDREN TO READ

9. "In this paper we argue that attempts to distinguish between categories of 'dyslexia' and 'poor reader' or 'reading disabled' are scientifically unsupportable, arbitrary and thus potentially discriminatory. We do not seek to veto scientific curiosity in examining underlying factors in reading disability, for seeking greater understanding of the relationship between visual symbols and spoken language is crucial."

Does Dyslexia Exist?, Julian G Elliott and Simon Gibb, Journal of Philosophy of Education Vol 42 Issue 3-4.

10. Schools teaching Synthetic Phonics demonstrate that specialist teachers are superfluous. Rigorous Synthetic Phonics enables the most disabled and cognitively impaired children to read for less than 1/10th of the cost of most "intervention". However, until the government initiates scientifically controlled trials and cheat-proof tests the most persuasive arguments will remain largely anecdotal.

"All in all, labelling a child 'dyslexic' puts maximum stress on the child. It is difficult to judge the evolution of dyslexics in that the very great majority have a history of Whole Language instruction. They could catch up with ease, but there is not time for this in the school context. A striking argument is that the only effective method for their rehabilitation, neurologists themselves have found, involves the systematic association of letters/sounds."

Translation of Therese Cuché, co-author of synthetic phonics programme, Leo et Lea.

DECLARED INTEREST

Trustee of Our Right to Read Trust. http://www.ourrighttoread.com

Founder 2008 Piper Books (Beginning Reading Instruction-Advanced Reading Instruction). http://www.piperbooks.co.uk

October 2009

# Supplementary memorandum submitted by Geraldine Carter (LI 11a)

I apologise for the late intervention regarding a point raised in Professor Slavin's submission and understand if the information might well be too late for consideration. I have also attached material:

- (i) re Reading Recovery
- (ii) re Testimonials of Synthetic Phonics decodables which I hope will be of interest. 17

In Professor Slavin's submission he states: "Success for All, which combines cooperative learning, one-to-one tutoring, and other elements in a whole-school reform model, has the most positive outcomes of all programmes, especially in the long term. A recent UK study found positive effects from this approach."

However, the US Government 2009 IES Institute of Education Scientists Final Report on "The Evaluation of Enhanced Academic Instruction in After-School Programs", concludes:

The enhanced program (developed by the Success for All Foundation) has no impact on total reading test scores after one year of participation. This is true in both implementation years in these 12 centres. Two years of participation produces significantly fewer gains in reading achievement for students in the enhanced program group. Experimental analysis finds that offering students two years of the enhanced reading program has a negative and statistically significant impact on their total reading scores. Non-experimental analysis suggests that this remains the case even after statistical adjustments are made for students in the enhanced program group who did not actually attend the enhanced program in the second year.

http://ies.ed.gov/pubsearch/pubsinfo.asp?pubid = NCEE20094077

The Reading Recovery attachment contains a number of references/articles highlighting the vast critical body of work on Reading Recovery.

The testimonial attachment highlights a skilfully constructed programme of synthetic phonics' readers which used as a one-to-one intervention costs less than one-tenth of the Reading Recovery programme. Any good synthetic phonics programme such as Jolly Phonics, Read-Write, PhonicsInternational or Sound Reading System—used in conjunction with expertly constructed SP readers enables all children to access reading skills, with significant savings. The savings to the Government, to us the tax-payers and, most of all, to the children themselves are inestimable.

I would like to take this opportunity to thank members of the Committee for their skilful, courteous and patient questioning.

Geraldine Carter

December 2009

# Memorandum submitted by Elizabeth Nonweiler (LI 12)

- 1. Declaration of Interest
  - I am an independent trainer for the teaching of reading.
  - I am an Associate Member of the British Dyslexia Association and teach children with reading difficulties.
  - I am a committee member of the Reading Reform Foundation.
  - I wrote a review of the evidence provided by government for its promotion and financial support for Reading Recovery, but not synthetic phonics, for Wave 3 intervention.

<sup>17</sup> Not printed

#### 2. Summary

- Some claims made for Reading Recovery in England are not credible.
- Synthetic phonics should be promoted for Wave 3 intervention.
- Reading Recovery and synthetic phonics are not compatible.

## 3. CLAIMS MADE BY READING RECOVERY AND WHY THEY ARE NOT CREDIBLE

The following report has been used by the government to justify the use of Reading Recovery: Comparison of Literacy Progress of Young Children in London Schools: a Reading Recovery Follow up Study (Burroughs-Lange, 2007).

Burroughs-Lange claims that this study:

- (a) "demonstrated . . . the sustainability of the significant gains made by the lowest achieving children who received Reading Recovery as 6 year olds".
- (b) "provides strong evidence that schools could enable almost every child to read and write appropriately for their age, if those who were failing were given access to expert teaching in Reading Recovery".
- (c) provides "ample evidence . . . that without RR, children with low literacy understanding do not catch up to age appropriate levels during Key Stage 1".

None of these claims are credible for the following reasons:

- (a) As there is no data for subsequent years, the first claim is credible only if qualified by the words "until the end of Y2".
- (b) As all the children in this study were less than eight years old, there is no evidence that schools could "enable almost every child to read appropriately for their age if given access to Reading Recovery". I know, from teaching older children with reading difficulties, that sometimes they reach a reading age of seveon or eight years and then their progress stops, because they cannot decode unknown words in more advanced text.
- (c) Children who received Reading Recovery tuition in Y1 are compared with children who received either no extra tuition or "alternative forms of support". The alternatives are small-scale, the author tells us almost nothing about their content or implementation, and there is no information about their results in Y2. It remains plausible that children with low literacy understanding do catch up to age appropriate levels with alternative interventions.

Burroughs-Lange is responsible for implementation of Reading Recovery in the UK, Ireland and Europe (University of London, 2008), so she is not an unbiased researcher.

# 4. RATIONALE FOR PROMOTING SYNTHETIC PHONICS FOR WAVE 3 INTERVENTION

- The Parliamentary Office of Science and Technology, Postnote (October 2009 Number 345), states that "Rigorous evaluations have shown that effective interventions involve work on increasing children's awareness of the individual sounds that make up words..., learning letter-sound correspondences, and applying these skills when reading books". This is how children are taught to read books using synthetic phonics.
- The government has promoted the use of synthetic phonics for teaching reading through its support for the Independent review of the teaching of early reading (Rose 2006), the Standards Site Core Criteria for assuring high quality phonic work and its publication of the synthetic phonics programme, Letters and Sounds. It would be logical to promote interventions that use synthetic phonics to help children who are struggling to learn to read.
- The seven year study, The Effects of Synthetic Phonics Teaching on Reading and Spelling Attainment (Johnston and Watson, 2005) provides credible evidence that synthetic phonics is effective for the initial teaching of reading. It also describes in detail the progress of "one child with severe learning difficulties [who] was able to read well above the level expected for his age and level of verbal ability" following interventions involving synthetic phonics principles. It is plausible that this works for other children with learning difficulties.
- I teach children from six to 13 years old who have had difficulties learning to read. Without exception, I have found that their difficulties have been exacerbated by their attempts to use context cues to guess words, before trying to decode them. With synthetic phonics, I teach them the alphabetic code and the skill of blending and insist that they identify unknown words by decoding. This strategy has been successful.

## 5. WHY READING RECOVERY AND SYNTHETIC PHONICS ARE NOT COMPATIBLE

The DCSF and Reading Recovery publications imply that Reading Recovery and synthetic phonics are compatible (*Every Child a Reader*, 2008 and Bodman, 2007). The following is evidence that they are not.

Bodman (2007) describes a Reading Recovery lesson, which, she claims, "links the teaching actions to the ideas of synthetic phonics": After reading a book, a child observes his teacher reading the word "can" "whilst demonstrating a left to right hand sweep". Then he builds "can" with magnetic letters and reads it himself. It is clear that the child was asked to read a text before acquiring the phonic knowledge and skills involved, and to read a word after being told the pronunciation. With synthetic phonics children read texts after learning the phonic knowledge and skills involved and they are not told the pronunciation of a new word before being asked to read it.

The National Literacy Strategy promoted the "searchlights" model, where learners are taught to use a range of strategies to read, including knowledge of context and grammar. In Reading Recovery lessons, children are encouraged to use these strategies to read new texts (Video transcript: Reading Recovery lesson). In the Rose Review, the searchlight model is rejected (paragraph 115) and synthetic phonics is recommended for teaching children to read (paragraph 47). Synthetic phonics involves teaching children to use phonics to read new texts.

"Children in Reading Recovery are taught how to treat new words as puzzles to be solved" (Douëtil, 2004). Synthetic phonics involves direct and systematic instruction.

October 2009

# Memorandum submitted by Diane McGuinness (LI 13)

#### PREFACE

I would like to take the name of this committee literally and assume that most members, perhaps all, understand and are committed to the scientific method. Unless we abide by this method, we can never solve the problem of reading failure in English speaking countries which has persisted for over 100 years. There is no place, no time, for armchair theories, false speculations, and bogus terms like "dyslexia" which explain nothing and only disguise our ignorance. Let us begin by exploring its real meaning and relevance. Then we can address what is really going on.

#### 1. Dyslexia means "Poor Reader" in Greek

That is all it means. Bona fide scientific research over the past three decades shows that no reading test can distinguish a "garden variety poor reader" from someone "diagnosed dyslexic." A poor reader is a poor reader is a poor reader, and this is true at any age. The recent *Rose report* (2009) muddles this term, referring on the one hand to serious cognitive delays in language function, and on the other to the literal meaning above. There is considerable evidence against a special reading disorder due to a brain dysfunction, and absolutely none to support it. A writing system is not, and cannot be, a "property of the human brain". It is an invention of the human mind. And like similar inventions—musical notation, mathematic symbols, computer languages—it has to be taught. (Who would suggest we label people who struggle with reading musical notation as having "dysmusia," or as being unmusical?)

## 2. Some Simple Facts

- (a) If reading difficulties occur because of a genetic disorder, why is there no "dyslexia" in countries with a transparent alphabet code (a one-to-one correspondence between a letter and the sound it represents) like Finland, Sweden, Norway, Italy, Spain, Germany, Austria, Korea, etc. In these countries, the term "dyslexia" either doesn't exist or means something else. In Austria, a "dyslexic" child reads and spells perfectly, but does so extremely slowly.
- (b) Over the past two decades many outstanding reading programmes have been created for teaching beginning readers and poor readers of all ages. The basis of these programmes are described in the *Rose Review (2006)*. These programmes teach the English alphabet code (no sight words, no guessing). Children taught with these programmes at Reception are one to two years above reading and spelling norms. It is rare for a child to fail. There are programmes older poor readers of any age, who can be taught to read and spell in about 18–24 hours of one-to-one tutoring. Whether or not they have been diagnosed "dyslexic" makes no difference. Where does the "dyslexia" go, when these people learn to read?

## 3. "EVERY CHILD A READER"

Here is an example of our ignorance and the failure to insist on proper scientific evidence in making critical decisions. This project was supported by the government, and funded by the tax payer with support from KPMG and Esmee Fairbairn. It resurrects the old, failed Reading Recovery programme that relies mainly on sight word memorization (see submission from Jennifer Chew for details). Several years ago, a letter was

sent to members of the US Congress with 31 signatures of the top researchers in the field of reading urging Congress to suspend support for RR because independent research showed the method had no effect. It is extremely costly to implement, re teacher training, tutoring time, and materials. Not only this, but RR "research" is notorious for misrepresenting the data. In a recent publication by the Institute of Education, the same problems appear.

- 1. Nearly half of the children from the 145 strong "RR-tutoring group" were dropped from the study at post-testing, while the control group remained intact. (Barely a mention of this, and no attempt to solve the problem this creates.)
- 2. The RR group received individual tutoring, the control group got none. One could go on. The published paper bears the hallmarks of a bona fide "scientific" journal, until a closer inspection reveals it is published by Reading Recovery. No chance for an impartial peer review process here.

## 4. What is a Writing System?

- (a) Five thousand years ago scholars in Egypt and Sumer discovered that people can't learn a writing system which uses a separate symbol for every word. There are too many words (one million words in the English language). To solve this problem, new symbols were designed to represent sounds in words, because there are far fewer sounds than words in every language. From this time forward, ALL writing systems were based on units of speech below the level of the word. (This is the only way they can work.) These are four units of speech used today in the world's writing systems. These systems are never mixed:
  - 1. symbols for syllables (syllabaries—China).
  - 2. symbols for CV units (diphone systems—most non-European countries).
  - 3. symbols for CC units only (consonantal alphabets—Hebrew, Arabic).
  - 4. symbols for each consonant and vowel: (alphabets-invented by the Greeks in the 8th century BC).
- (b) All codes are reversible by definition, which means spelling and reading are mirror images of one another. They should never be taught separately as if they had nothing to do with each other (a common practice in our schools.)
- (c) A "transparent" writing system assigns a single symbol to one and only one sound in the language. Finland and Korea have the most transparent writing systems in the world. This is why children in Finland start school at age 7 and are reading and spelling accurately by Xmas. No further lessons are required. This is true in all countries with well-behaved writing systems like those listed above.

(NB A recent paper by the Dept of Ed at Cambridge, 600 pages long, uses this fact about Finland to argue that English children should NOT be taught to read until age six, but should "play" instead! They actually believe the reason is "developmental", when learning is a function of the complexity of the writing system and how it is taught.)

# 5. Why English Speaking Children are at a Disadvantage

The English writing system is one of the most opaque writing systems in the world. It has multiple spellings for the same sound, and multiple "decodings" of the same spellings. This is the reason English speaking children have such difficulty learning to read and spell, and it is the only difficulty. The reasons are historical. English is an amalgam of five languages introduced by foreign invaders who came ashore with their five different writing/spelling systems. For centuries, these languages and their spelling systems occupied different ecological niches. But as language barriers began to collapse and merge, spelling went haywire. Nobody could solve this problem until Samuel Johnson took it on in 1755. But Johnson was only able to standardize the spelling for sounds in individual words. He failed totally to standardize the spellings for the 40+ sounds in our language. This failing makes our writing system, not only unstable, but context dependent. It matters what word a spelling is "sitting in": "theme" is not spelled "theem" or "theam" though it could be. This problem is solved by programmes which highlight these features and common spelling patterns, and are written by authors who truly understand the code and its idiosyncrasies.

# 6. Our Most Urgent Need

A plea for teacher training. I have talked to teachers all over the country in almost every setting from reception to further ed colleges to the prison system. All report the same thing. None had any training whatsoever in college in how to teach reading. They had no idea our alphabetic writing systems is a code, much less what this code looks like. Teachers must have proper training in these successful new programmes, otherwise we will never solve the problem of the huge illiteracy rate in English speaking countries. Teachers trained in these methods need to be supported by the Head and other staff, which is not always the case.

BIO/DECLARATION OF INTERESTS

Birkbeck College (1st class honours in Psychology).

University College London (PhD Psychology).

Professor Emeritus in Psychology. University of South Florida.

I reside in the UK.

I am the author of many books and scientific papers on perception, cognitive development, the psychology of learning, and reading.

Books which may be relevant to the committee in expanding on the points above, can be obtained from the library.

Why Our Children Can't Read, US edition Simon and Schuster 1997.

Why Children Can't Read, UK edition Penguin Press 1998.

Early Reading Instruction, MIT Press 2004.

Language Development and Learning to Read, MIT Press 2005.

I have written two spelling programmes and a parent tutoring programme for the North American market using the American spelling system. These are published by Trafford Publishing, Canada.

I am the Chair of Our Right to Read, a charity which provides financial support for tutoring to children and adults with reading difficulties, plus support for training fees for people who want to teach in the classroom, in remedial settings in schools, FE colleges, and the prison system. My work for the Charity is pro bono. None of my materials are used in this work.

October 2009

# Memorandum submitted by Ruth Allen (LI 15)

- 1. Statement of Interest. I work for The Dyslexia Association, a charity serving a large area of the East Midlands. We give free advice to parents about dyslexia identification and support for children at school, and we also offer private screening, assessment and tuition for children. I submit a personal opinion because the early deadline has not given me the time I would normally take to discuss the subject with my colleagues.
- 2. Summary. I am concerned that we encounter many enquiries from parents whose children are repeatedly denied any proper diagnostic investigation through school of their potential dyslexic difficulties. These children are at severe risk of lifetime problems because of the lack of a timely intervention to meet their needs. They would be helped by a government policy based on a clear description of dyslexia that signposts the neurological difficulties involved and links dyslexia to learning need.
- 3. There is no single, universally accepted definition of dyslexia. Many different statements have been formulated. Most are not strictly definitions, but attempts to describe dyslexia. This does not mean that the condition is non-existent or trivial. Rather, it indicates that dyslexia is complex and multi-faceted. Dyslexic individuals are all different, though all show facets of a common pattern.
- 4. The British Psychological Society (1999) proposed a superficially clear "definition": "Dyslexia is evident when accurate and fluent word reading and/or spelling develops very incompletely or with great difficulty."

However, the BPS report acknowledges (DECP 6.2) that this "definition" was made purely for narrow academic research purposes. Crucially, the BPS also acknowledge that "formulation in the matter of learning difficulty is essentially a separate and more extensive endeavour". In other words, the BPS researchers never intended their "definition" to be used to influence SEN provision, and do not consider it suitable for that purpose.

Sadly, their caveat has been widely overlooked amongst local authorities and teachers making day-to-day provision in schools. To an authority struggling with a tight budget, the restrictiveness of the BPS definition may be attractive in providing criteria to "justify" arbitrary restrictions on where funding should be placed. However, the "definition" is not at all helpful to teachers or parents looking for ways to help a child who is failing to progress.

5. An extension which looks at causation, such as "Dyslexia is a difficulty in the acquisition of accurate and/or fluent word reading, spelling and writing that is neurological in origin" (I Smythe) is rather more helpful, particularly when it is fleshed out with a list of difficulties, such as phonological perception, auditory and visual memory and speed of information processing, which are all factors which may be relevant. This leads towards tools for identifying and making provision for the learning needs of children with difficulties in acquiring literacy. Dyslexia screens based on investigation of typically dyslexic neurological difficulty (eg Lucid or NfER) provide an accessible means for the non-specialist teacher to sketch out an individual profile of strengths and difficulties. More detailed assessment may follow as necessary.

Annex

- 6. Longer and more descriptive "definitions" tend to include causal hypotheses and/or lists of "indicator" characteristics that are commonly present alongside the core literacy difficulty. An example is the British Dyslexia Association "definition". Such "definitions" are inherently imprecise and full of "maybe"s, but they match the multi-dimensional nature of dyslexia and provide the pointers for identifying individual needs and learning patterns.
- 7. The Scottish Parliament has recently (2009) developed a descriptive "working definition" of dyslexia, which lists a range of difficulties commonly associated with dyslexia, and highlights the specific nature of the difficulty. In a rider, it encourages early identification and well targeted teaching, and contrasts the frustration and underachievement associated with unaddressed dyslexia with the desirable educational and social outcomes that can be achieved with appropriate teaching. I feel that this is a helpful basis for an educational policy.
- 8. Dyslexic pupils have needs which go beyond learning to read and write at the word level. There is good evidence to show that most dyslexic children can acquire literacy with the right support (see Singleton and the No to Failure report), but many will never reach the degree of competence and automaticity expected for their overall ability. Well targeted early intervention pays huge dividends, but there is also a need for ongoing vigilance, for example when supporting older students in structuring information or working with complex text. This should be noted in any official description of dyslexia.
- 9. Government policy on dyslexia should obviously be based on a clear understanding of what is meant by dyslexia, but this does not necessarily mean that there is a need for a definition in a precise logical sense. The term "definition" may suggest that we are looking for a precise "yes or no" test to determine whether or not an individual has dyslexia. Such a simplistic test would be profoundly unhelpful and indeed damaging. Teachers will be better guided by a descriptive statement which enables children to be identified with a range of different neurological profiles that may pose barriers to their acquisition of literacy.

REFERENCES HAVE BEEN MADE TO:

British Psychological Society: Report by a Working Party of DECP (1999).

Dyslexia, Literacy and Psychological Assessment:

6.2 (extract)

"The working definition adopted in this report has implications for educational provision. There is, however, no ready formula to link a particular pattern or level of dyslexic difficulty to a particular formulation of learning difficulty or provision. The Code of Practice does not specify definitional features of dyslexia, but catalogues possible causal factors, aspects of curriculum difficulty, and emotional/motivation al consequences, all under the umbrella of 'the child's learning difficulty'. Formulation on the matter of a learning difficulty, then, is essentially a separate, and more extensive, endeavour than formulation in the matter of dyslexia."

British Dyslexia Association definition of dyslexia:

"Dyslexia is a specific learning difficulty which mainly affects the development of literacy and language related skills.

It is likely to be present at birth and to be lifelong in its effects. It is characterised by difficulties with phonological processing, rapid naming, working memory, processing speed, and the automatic development of skills that may not match up to an individual's other cognitive abilities.

It tends to be resistant to conventional teaching methods, but its effects can be mitigated by appropriately specific intervention, including the application of information technology and supportive counselling."

Scottish Parliament working definition of dyslexia:

"Dyslexia can be described as a continuum of difficulties in learning to read, write and/or spell, which persist despite the provision of appropriate learning opportunities. These difficulties often do not reflect an individual's cognitive abilities and may not be typical of performance in other areas.

The impact of dyslexia as a barrier to learning varies in degree according to the learning and teaching environment, as there are often associated difficulties such as:

- auditory and/or visual processing of language-based information;
- phonological awareness;
- oral language skills and reading fluency;
- short-term and working memory;

- sequencing and directionality;
- number skills; and
- organisational ability.

Motor skills and co-ordination may also be affected.

Dyslexia exists in all cultures and across the range of abilities and socio-economic backgrounds. It is a hereditary, life-long, neurodevelopmental condition. Unidentified, dyslexia is likely to result in low self esteem, high stress, atypical behaviour, and low achievement.

Learners with dyslexia will benefit from early identification, appropriate intervention and targeted effective teaching, enabling them to become successful learners, confident individuals, effective contributors and responsible citizens."

October 2009

# Memorandum submitted by Bella Hewes (LI 16)

LITERACY INTERVENTIONS—A SUMMARY

Dyslexia definition

Dyslexia is a multifaceted, complex, cognitive phenomenon of learning which prevents a student of average intelligence from making normal progress in the acquisition of some or all of the following: reading, spelling, handwriting, speech formation and the development of mathematical and/or organisational skills. It is inherited, affects males more than females in a ratio of four to one and requires specialist teaching by well-qualified teachers. Someone with a high, medium or low IQ can be dyslexic. It used to be considered a handicap but is now frequently thought of as a gift.

## Diagnosis

Diagnosis is quite straightforward for those who are adequately trained, as I was. Diagnosis is via an all round cognitive and practical assessment and typically takes two hours, face to face, for a secondary age student. The assessor uses an appropriate range of standardized tests in addition to handwriting samples and some general discussion of the student's perceptions of their difficulties. Afterwards, the assessor will score the tests and produce a full report with recommendations for home and school. It is best if the assessor can have an advance discussion with the student's parents/carers and with at least one of the student's teachers. This further consultation is a time-consuming process but is far more professional and useful. The assessor has to be able to put the student at ease otherwise assessment can be a rather threatening situation for dyslexics, especially the younger ones. It is possible to assess people aged 5/6 right up to 65 yrs for dyslexia.

# Teaching dyslexic children to read

Step 1 is to carry out an assessment to discover the student's strengths and weaknesses. The assessment will establish whether the student learns best visually, via the auditory channel or kinaesthetically. There is a now a plethora of resources that play to a student's strengths so the teacher needs access to a wide bank of software/readers/games/materials etc.

The non-reader requires lots of initial work with wooden alphabet letters, self-made cards to rehearse the letter names and sounds at home, phonemes, vowel sounds etc. There are recognised schemes that assist the teacher to work through all the basic building blocks of reading so the student becomes confident at recognising letters and sounds. One of the recognized schemes that I used effectively is the Hickey method.

Once the basics are acquired, the teacher can proceed with word-attack skills, simple reading books that are carefully graded and allow the student to rehearse the learnt skills. Much consolidation has to take place because the dyslexic does not generally have good memory skills.

It is essential for a dyslexic to sit back, relax and enjoy books being read to them. Boys often prefer non-fiction and being read to should continue right through primary and on into Yr 9 of secondary, if possible. Being read to helps a student acquire semantic skills, new vocabulary, understanding of idioms and metaphor etc because the reader can explain in simpler language. There is also a strong argument for a student to reread his/her favourite book many times.

#### Problems

Children cannot learn to read for a variety of reasons, dyslexia being only one of them. It may be helpful for some of these reasons to be listed:

- Non-attendance due to many reasons, some being to do with the family/housing difficulties/ families who regularly travel etc.
- Undiagnosed hearing and eyesight problems.

- Parents cannot read. If this is unknown to school, child cannot practice at home unless there is an older sibling/neighbour who has to be "in the know".
- PTSD and other mental health difficulties, often undiagnosed.
- Child protection issues that are making the child anxious and/or frightened so that concentrating at school is impossible.
- Medical difficulties—constipation, anaemia, poor diet etc.
- ADHD or ADD—which can prevent a child from concentrating for any useful length of time.
- Dyspraxia, Asperger's or Autism difficulties.
- Behavioural difficulties—which are on the increase especially in the rising-fives age group where the early building blocks of social and learning readiness are taking place.
- English is not the child's first language.

## **FURTHER THOUGHTS**

Ed Balls has agreed funding for 4,000 newly trained teachers to teach dyslexics. These teachers will require substantial training and this will either require full-time or part-time study. As well as becoming familiar with all the materials available to support the teaching of dyslexics, the teacher has to understand what dyslexia is and how it presents. There is a lot of theory to cover and this takes time. Computer support for dyslexics in the classroom is important so the teachers will need to be very up to date on what is available. Learning how to assess for dyslexia is an essential part of the training and the assessments need to be practised until they become more familiar to the teacher. The teachers need to be observed assessing students so the trainer can feel confident in their expertise. The best scenario for training is over a full academic year, giving at least four hours to the course. The trainees would also be expected to be in a teaching role so they can try out some of their learning—with the prior agreement of the educational establishment.

There is no way teachers could be trained to teach dyslexics by following a short course of one week.

Assessment materials for dyslexics are really expensive and many are needed. eg one set of Ravens Advanced Progressive Matrices Set costs £175 + vat. The British Picture Vocabulary Scale Complete Set costs £155 + £10.50 for 10 record forms. It would cost individuals somewhere in the region of £1,000 to equip themselves with assessment materials and teaching aids. Where is this money going to come from?

#### Bella Hewes

October 2009

Literacy Specialist Advisory Teacher with over 30 years experience of working with literacy and numeracy disabled students aged 5-25 years.

Qualifications: BA Hons (Eng/Educ), Sociology Diploma, Post Grad Cert Ed, RSA Diploma to teach those with Specific Learning Difficulties.

# Memorandum submitted by Dr Morag Stuart, Dr Jackie Masterson, Dr Julie Dockrell and Dr Yvonne Griffiths (LI 17)

We attach our submission of written evidence to this evidence check, for your consideration.

#### STATEMENT OF INTEREST

We were involved in reviewing and summarising relevant research evidence for the recent Rose Report "Identifying and teaching children and young people with dyslexia and literacy difficulties", and in some cases also served on the Expert Advisory Group to this review. We would welcome the opportunity to give oral evidence to the Select Committee.

Dr Morag Stuart, Emeritus Professor of the Psychology of Reading.

Dr Jackie Masterson, Professor of the Psychology of Reading.

Dr Julie Dockrell, Professor of Psychology and Special Needs.

Dr Yvonne Griffiths, Lecturer in Psychology and Special Education.

# 1. Government policy on literacy interventions for school children with reading difficulties

1.1 Children's ability to understand and use the alphabetic principle underlies the development of word reading skills. 18 Research evidence acknowledges (a) the crucial role of phonics in reading development. 19 (b) that this is the aspect of learning which is most difficult for children with dyslexia<sup>20</sup> and (c) that early intervention can be successful for some children<sup>21</sup> and is more successful than later intervention.<sup>22</sup> The recently commissioned Rose report (Rose, 2009) therefore recommends close monitoring of children's initial progress through their school's chosen phonics programme, with immediate adjustments to this high quality Wave 1 teaching (eg additional small group repetition of material) to accelerate learning in those making slow progress. Children failing to make satisfactory progress following initial adjustments to Wave 1 teaching require further investigation of the sources of their difficulty, and further intervention (Waves 2 and 3<sup>23</sup> involving intensive, additional support eg, to consolidate phonic knowledge and skills, especially segmenting and blending). The Rose report recommends use of Brooks (2007) as a source of information on and critical assessment of currently available interventions. It also recommends additional training for all teachers to improve the quality of Wave 1 teaching; training of some teachers in all schools to improve selection, implementation, monitoring and evaluation of intervention programmes; and training of specialist dyslexia teachers who will work with clusters of schools to provide in-depth assessment, design of teaching programmes appropriate to individual needs, and monitoring and support of these interventions.

## 2. The evidence base for the Every Child a Reader and Making Good Progress programmes

- 2.1 We refer you here to pages 95–120 of the recent review *Intervention for Dyslexia: A review of published evidence on the impact of specialist dyslexia teaching* (Singleton, 2009) which provides thorough coverage of the evidence base for ECAR (download at http://www.thedyslexia-spldtrust.org.uk/article/13/review-of-international-research-published-by-dr-chris-singleton).
  - 2.2 We have no knowledge of the "Making Good Progress" programme.

# 3. The definition of dyslexia

- 3.1 Rose (2009) presented a six-part definition of dyslexia, which was agreed after much discussion among the Expert Advisory Group, and has been accepted by the newly formed Dyslexia/SPLD Trust and its component third sector organisations. Each part of the definition is securely based in current empirical evidence.
- 3.1.1 Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling

International research evidence indicates that if you are dyslexic, you will have a word level reading and spelling difficulty.<sup>24</sup> Dyslexic difficulties (slow reading, spelling difficulties) persist into adolescence and adulthood,<sup>25</sup> with variability in the severity and persistence of word reading accuracy difficulties.

3.1.2 Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed

Empirical studies have identified weak phonological processing skills (eg poor phoneme awareness, poor phonological working memory, slow naming speed) as a core marker of dyslexic reading difficulties.<sup>26</sup>

# 3.1.3 Dyslexia occurs across a range of intellectual abilities

The label is not restricted to those with average or above average intelligence. Empirical studies have shown IQ to be a poor predictor of literacy related skills,<sup>27</sup> of how well a child responds to reading intervention<sup>28</sup> and of long-term literacy outcomes.<sup>29</sup>

<sup>&</sup>lt;sup>18</sup> eg, Byrne, 1998; Muter et al, 2004; Bowey, 2005.

Ehri et al, 2001; Savage, Stuart, & Hill, 2001; Share, 1995; Stuart, 1999, 2004; Stuart & Coltheart, 1988; Stuart et al, 1999.
 Griffiths & Snowling, 2002; Manis et al, 1996; Share & Stanovich, 1995; Snowling, 1980; Stanovich & Siegel, 1994; Stanovich et al, 1997; Vellutino et al, 2004; Wagner & Torgesen, 1987).

<sup>21</sup> Bowyer-Crane *et al*, 2008; Hatcher *et al*, 2004; Hatcher *et al*, 2006; Hindson *et al*, 2005.

<sup>&</sup>lt;sup>22</sup> cf. US National Reading Panel report, 2000.

<sup>23</sup> The National Strategies Waves of Intervention model defines Wave 1 as high-quality teaching for all children, Wave 2 as targeted small-group intervention for pupils who can be expected to catch up with their peers and Wave 3 as intervention for children for whom Wave 1 and 2 are not enough, which may need to be a more intensive programme, involving more individual support or specialist expertise.

Vellutino et al, 2004; Snowling, 2008.

<sup>&</sup>lt;sup>25</sup> eg, Shaywitz et al 1999; Snowling et al, 2007; Maughan et al, 2009.

<sup>&</sup>lt;sup>26</sup> See Snowling, 2000 for a review.

<sup>&</sup>lt;sup>27</sup> Shaywitz et al, 1999; Stuebing et al, 2002; Stanovich & Siegel, 1994.

Hatcher & Hulme, 1999; Vellutino et al, 2000.

<sup>&</sup>lt;sup>29</sup> Shaywitz et al, 1999; Maughan et al, 1994

3.1.4 It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points

As is true for most developmental disorders, there are no clear-cut boundaries between those who are affected and those who are not (cf high blood pressure) and those who fulfill diagnostic criteria at one point in time may not at another.<sup>30</sup> Moreover, evidence from longitudinal family studies and behavioural genetic twin studies has demonstrated dyslexia varies continuously from mild to severe.<sup>31</sup> A child with a reading score at the 25th centile will differ in the severity but not the nature of their reading difficulty from the child making poor progress falling at the 27th or 30th centile. Multiple genes influence learning difficulties and are probabilistic, not deterministic.<sup>32</sup> Reading is highly heritable, but a complex interaction between genes and environmental factors (home and school) is known to influence gene expression.<sup>33</sup>

3.1.5 Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia

Children with learning difficulties, including dyslexia, are at a greater risk than others of having more than one developmental disorder (eg, SLI, ADHD, DCD, Dyscalculia).<sup>34</sup> However, you can be dyslexic and not have any other learning difficulty, hence problems with speech/oral language, attention, motor co-ordination and maths are not defining characteristics of dyslexia.

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

There are no quick fixes for dyslexia.<sup>35</sup> Although many young poor readers, including those identified early as being "at risk", respond well to effective, well implemented phonological interventions, some pupils will not make progress.<sup>36</sup> Evidence indicates these pupils have the most severe phonological difficulties at the start of the intervention and are rated "inattentive", requiring ongoing support with their persisting reading difficulties throughout their education.<sup>37</sup>

- 4. The evidence base for diagnosing dyslexia and teaching dyslexic children to read
- 4.1 We refer you here to Rose (2009). Chapter 2 (pages 42–56) covers identification of children and young people with dyslexia/literacy difficulties. Chapters 3 and 4 (pages 57-103) cover teaching issues. Annex 2 (pages 131–144) presents the results from the on-line survey of the roles and responsibilities of specialist dyslexia teachers carried out for the review by the University of York and the Institute of Education, University of London.
- 4.2 We also refer you again to Singleton (2009). The Expert Advisory Group to Rose (2009) was involved in discussion and revision of this report. Pages 76-93 review research evidence dealing with issues in identifying dyslexia. Pages 29-53 review international intervention studies. Pages 55 -73 review UK intervention studies.

## REFERENCES

Bishop, D V M and Snowling, M J (2004). Developmental Dyslexia and Specific Language Impairment: Same or Different? Psychological Bulletin, 130, 6, 858–886.

Bowey, J (2005). Predicting Individual Differences in Learning to Read. In M Snowling and C Hulme (Eds), The science of reading: A handbook. (pp 155-172). Oxford: Blackwell Publishing.

Bowyer-Crane, C. Snowling, M J. Duff, F J. Fieldsend, E. Carroll, J. Miles, J N V. Goetz, K and Hulme, C (2008). Improving early language and literacy skills: Differential effects of an oral language versus a phonology with reading intervention. Journal of Child Psychology & Psychiatry, 49, 422–432.

Brooks, G (2007). What works for pupils with literacy difficulties? London: DCSF. http:// www.standards.dcsf.gov.uk/phonics/

Byrne, B (1998). The foundation of literacy: The child's discovery of the alphabetic principle. Hove, UK: Psychology Press.

Compton, D L, Fuchs, D, Fuchs, L S and Bryant, J D (2006). Selecting at-risk readers in first grade for early intervention: A two-year longitudinal study of decision rules and procedures. Journal of Educational Psychology, 98, 394–409.

<sup>30</sup> Shaywitz et al, 1992.

Snowling et al, 2007; Vellutino et al, 2004.

Plomin & Kovas, 2006.

Gayan & Olson, 2001; Harlaar et al, 2007; see Pennington & Olson, 2005 for a review.

For reviews, see Bishop & Snowling, 2004; Goswami, 2008; Hulme & Snowling, 2009. Maughan et al, 1994; Maughan et al, 2009; Shaywitz et al, 1999.

Torgesen, 2000; Hatcher et al, 2006; see Singleton, 2009 for a review.

Vellutino & Fletcher, 2005; Compton et al, 2006; Duff, 2008.

Duff, F J (2008). Defining reading disorders and evaluating reading interventions: Perspectives from the Response to Intervention model. *Educational and Child Psychology*, 25, 31–36.

Ehri, L C, Nunes, S, Stahl, S, and Willows, D (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research*, 71, 393–447.

Gayan, J and Olson, R K (2001). Genetic and environmental influences on orthographic and phonological skills in children with reading disabilities. *Developmental Neuropsychology*, 20 (2), 483–507.

Goswami, U (2008). Foresight Mental Capital and Wellbeing Project. *Learning difficulties: Future challenges*. The Government Office for Science, London.

Griffiths, Y M and Snowling, M J (2002). Predictors of exception word and nonword reading in dyslexic children: The severity hypothesis. *Journal of Educational Psychology*, 94, 34–43.

Harlaar, N, Dale, P S, and Plomin, R. From learning to read to reading to learn: Substantial and stable genetic influence. *Child Development*, 78, 1, 116–131.

Hatcher, P J and Hulme, C (1999). Phonemes, rhymes, and intelligence as predictors of children's responsiveness to remedial reading instruction: Evidence from a longitudinal study. *Journal of Experimental Child Psychology*, 72, 130–153.

Hatcher, PJ, Hulme, C and Snowling, MJ (2004). Explicit phoneme training combined with phonic reading instruction helps young children at risk of reading failure. *Journal of Child Psychology & Psychiatry*, 45, 338–358.

Hatcher, P J, Goetz, K, Snowling, M J, Hulme, C, Gibbs, S, and Smith, G (2006). Evidence for the effectiveness of the Early Literacy Support Programme. *British Journal of Educational Psychology* (73), 351–367.

Hatcher, P J, Hulme, C, Miles, J N V, Carroll, J M, Hatcher, J and Gibbs, S (2006). Efficacy of small group reading intervention for beginning readers with reading-delay: A randomized controlled trial. *Journal of Child Psychology & Psychiatry*, 47, 820–827.

Hindson, B, Byrne, B, Fielding-Barnsley, R, Newman, C, Hine, D W and Shankweiler, D (2005). Assessment and Early Instruction of Preschool Children at Risk for Reading Disability. *Journal of Educational Psychology*, 97, 687–704.

Hulme, C and Snowling, M (2009). Developmental Disorders of Language, Learning and Cognition. Oxford: Blackwell/Wiley.

Manis, F R, Seidenberg, M S, Doi, L M, McBride-Chang, C and Peterson, A (1996). On the basis of two subtypes of developmental dyslexia. *Cognition*, 58, 157–195.

Maughan, B, Hagell, A, Rutter, M and Yule, W (1994). Poor readers in secondary school. *Reading and Writing*, 6, 2, 125–150.

Maughan, B, Messer, J, Collishaw, S, Snowling, M J, Yule, W, and Rutter, M (2009). Persistence of literacy problems: spelling in adolescence and at mid-life. *Journal of Child Psychology and Psychiatry*, 50, 893–901.

Muter, V, Hulme, C, Snowling, M J, and Stevenson, J (2004). Phonemes, rimes and language skills as foundations of early reading development: Evidence from a longitudinal study. *Developmental Psychology*, 40, 663–681.

National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Washington, DC: National Institute of Child Health and Human Development.

Pennington, B F and Olson, R K (2005). Genetics of dyslexia. In M Snowling and C Hulme (Eds), *The science of reading: A handbook.* (pp 453–472). Oxford: Blackwell Publishing.

Plomin, R and Kovas, Y (2006). Generalist genes and learning disabilities. *Psychological Bulletin*, 131, 592-617.

Rose, J (2009). *Identifying and teaching children and young people with dyslexia and literacy difficulties*. DCSF Publications, DCSF- 00659-2009. http://publications.dcsf.gov.uk/eOrderingDownload/00659-2009DOM-EN.pdf

Savage, R, Stuart, M and Hill, V (2001). The role of scaffolding errors in reading development: Evidence from a longitudinal and a correlational study. *British Journal of Educational Psychology*, 71, 1–13.

Share, D L (1995). Phonological recoding and self-teaching: sine qua non of reading acquisition. *Cognition*, 55, 151–218.

Share, D L and Stanovich, K E (1995). Cognitive processes in early reading development: Accommodating individual differences into a model of acquisition. *Issues in Education*, 1, 1–57.

Shaywitz, B A, Fletcher, J M, Holahan, J M and Shaywitz, S E (1992). Discrepancy compared to low achievement definitions of reading disability: Results from the Connecticut longitudinal study. Journal of Learning Disabilities, 25 (10), 639-648.

Shaywitz, S E, Fletcher, J M, Holahan, J M, Schneider, A E, Marchione, K E, Stuebing, K K (1999). Persistence of dyslexia: The Connecticut longitudinal study at adolescence. *Paediatrics*, 104, 1351–1359.

Singleton, C (2009). Intervention for dyslexia. Bracknell: the Dyslexia-Specific Learning Difficulties Trust. http://www.thedyslexia-spldtrust.org.uk/article/13/review-of-international-research-published-by-dr-chrissingleton).

Snowling, M J (1980). The development of grapheme-phoneme correspondences in normal and dyslexic readers. Journal of Experimental Child Psychology, 29, 294–305.

Snowling, M J (2000). *Dyslexia*. 2nd edition. Oxford: Blackwell.

Snowling, M J (2008). Dyslexia. Foresight Mental Capital and Wellbeing Project. Learning difficulties: Future challenges. The Government Office for Science, London.

Snowling, M J, Muter, V and Carroll, J M (2007). Children at family risk of dyslexia: A follow-up in adolescence. Journal of Child Psychology and Psychiatry, 48, 609-618.

Stanovich, K E and Siegel, L S (1994). The phenotypic performance profile of reading-disabled children: A regression-based test of the phonological-core variable-difference model. Journal of Educational Psychology, 86, 24–53.

Stanovich, K E, Siegel, L S and Gottardo, A (1997). Converging evidence for phonological and surface subtypes of reading disability. Journal of Educational Psychology, 89, 114–127.

Stuart, M (1999). Getting ready for reading: Early phoneme awareness and phonics teaching improves reading and spelling in inner-city second-language learners. British Journal of Educational Psychology, 69, 587-605.

Stuart, M (2004). Getting ready for reading: A follow-up study of inner city second language learners at the end of Key Stage 1. British Journal of Educational Psychology, 74, 15–36.

Stuart, M and Coltheart, M (1988). Does reading develop in a sequence of stages? Cognition, 30, 139-181.

Stuart, M, Masterson, J, Dixon, M and Quinlan, P (1999). Inferring sublexical correspondences from sight vocabulary: Evidence from 6- and 7-year-olds. Quarterly Journal of Experimental Psychology, 52A, 353-366.

Stuebing, K.K., Fletcher, J.M., LeDoux, J.M., Lyon, G.R., Shaywitz, S.E. and Shaywitz, B.A. (2002), Validity of IQ-discrepancy classifications of reading disabilities: A meta-analysis. American Educational Research Journal, 39, 469-518.

Torgesen, J K, Wagner, R K, Rashotte, C A, Rose, E, Lindamood, P, Conway, T and Garvin, C (1999). Preventing reading failure in young children with phonological processing disabilities: Group and individual responses to instruction. Journal of Educational Psychology, 91, 579–593.

Torgesen, J K (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resistors. Learning Disabilities Research and Practice. 15, 55-64.

Vellutino, FR, Scanlon, DM, Lyon, GR (2000). Differentiating difficult-to-remediate and readily remediate poor readers: More evidence against the IQ-achievement discrepancy definition of reading disability. Journal of Learning Disabilities, 33, 223–238.

Vellutino, FR, Fletcher, JM, Snowling, MJ and Scanlon, DM (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? Journal of Child Psychology and Psychiatry, 45, 2-40.

Vellutino, F R and Fletcher, J M (2005), Developmental dyslexia, In M J Snowling and C Hulme (Eds), The *Science of reading: a handbook.* pp 362–78. Oxford: Blackwell.

Wagner, R K and Torgesen, J K (1987). The nature of phonological processing and its causal role in the acquisition of reading skills. Psychological Bulletin, 101, 192-212.

October 2009

## Memorandum submitted by Professor Usha Goswami (LI 18)

Declaration of interest: I am currently engaged in a five-year research project for the Medical Research Council on auditory processing, neural processing and developmental dyslexia. I also served as the Science Expert for Learning Difficulties for the recent Government Foresight Project on Mental Capital and Wellbeing. These roles inform the evidence submitted here.

1. Dyslexia is a genetically carried learning difficulty that affects around 7% of children. There is a 4:1 gender ratio (boys:girls). Developmental dyslexia presents as a specific difficulty in acquiring reading and spelling skills despite adequate instruction and no obvious sensory or neurological damage. Most learning difficulties represent the extreme low end of a continuum of ability, and dyslexia is no exception. This means that children near to the low end of the distribution of reading skills, who do not exhibit sufficiently severe difficulties to qualify for a diagnosis of dyslexia, will still have considerable learning problems.

- 2. New science is revealing that brains with learning difficulties are brains that are less efficient in particular and measurable aspects of sensory or attentional processing, providing specific targets for intervention. In the case of dyslexia, the best current evidence is that subtle impairments in auditory processing, present from infancy, cause subtle difficulties in the acquisition of language skills that present as a difficulty with phonology. Phonology is the sound structure of language—the sound patterns that comprise parts of words, whole words and intonational phrases. Difficulties with phonology can be measured by asking children to perform "phonological awareness" tasks. For English children, these tasks might include deciding whether words rhyme, deciding how many syllables a word has (eg "butterfly" has three syllables, and so does "oasis"), deciding whether words begin with the same sound, or deciding whether the first or second syllable is stressed in familiar words like "baby" or "mummy".
- 3. The research on auditory processing difficulties has not yet yielded a reliable cognitive biomarker for developmental dyslexia, although it is likely to achieve this within the next 10 years. The best way to diagnose dyslexia currently is to measure the child's phonological skills, phonological short-term memory skills, rapid naming skills and interpret this profile in the context of their written language skills. There has been a debate in recent years over whether a child with low IQ and with poor reading and spelling skills should receive a diagnosis. If such children show a phonological profile suggestive of dyslexia, my view is that a diagnosis and targeted remediation is justified. In our study of developmental dyslexia for the Medical Research Council, we have found that auditory processing difficulties and specific phonological deficits occur in the context of both high and low IQ.
- 4. Nevertheless, an assessment of evidence for the Foresight project suggested that current early screening tools for developmental dyslexia are ineffective, generating many false positives. The most effective interventions are thus likely to be generic, focusing on developing phonological skills in all children in the early years. Generic intervention could then be followed by differentiated interventions for those most at risk. Early generic intervention, with later focused and differentiated intervention, personalised to each child with a learning difficulty, seems likely to offer the highest return on educational investment (ROI).
- 5. The development of literacy is also affected by family factors and school factors. In the Foresight Report on Mental Capital and Wellbeing, we presented a diagrammatic summary of how different genetic, family-based and school-based factors affect the development of functional literacy, drawing on scientific evidence commissioned by the Project. This diagram may be useful for the Committee. We found that genetic factors act largely through their influence on phonological development and overall language development. Family environment acts through language development and effects on the child's exposure to print (eg, parental reading with children, the value placed on print in the home). School environment acts mainly through teacher expertise, pupil self-esteem and the quality of the reading curriculum. The project argued that specialist teacher training was required to help teachers to identify learning difficulties.
- 6. The evidence considered by the Foresight team suggested that three kinds of interventions for developmental dyslexia should be considered in early childhood:
  - (a) interventions focused on phonological development;
  - (b) interventions focused on the family environment; and
  - (c) interventions designed to "skill up" teachers.
- 7. Interventions focused on phonological development work best when delivered in nursery by teaching assistants, ensuring equal access for all children, and no need for parental "buy-in". Generic interventions deal with the wide variability amongst children in early development. The best interventions follow a developmental progression that is supported by experimental studies across languages, beginning with listening and rhyming games, followed by oral work on sentences and words, followed by oral work on syllables and initial sounds in words. Oral games to foster blending and segmenting sound elements in words come next, and finally letter-sound correspondences are introduced. The major focus is on oral language skills.
- 8. Family interventions should focus on introducing books into the home and helping parents with "shared reading" practices. Shared reading enhances the language that carers use with young children as well as providing exposure to print. This is important, as overall language skills (vocabulary and complex language) as well as phonological awareness and letter knowledge are extremely strong predictors of later literacy. Effective shared reading programmes also teach caretakers to use books as a starting point for dialogue, increasing the complexity of the language used with the child and increasing parental responsiveness to the interests of the child. The latter is an important predictor of later independent learning.
  - 9. School-based interventions should focus on:
    - increased teacher knowledge of how reading develops in children;
    - increased teacher knowledge about learning difficulties such as dyslexia; and
    - increased training to help teachers to identify children with learning difficulties.

Foresight. Mental Capital and Wellbeing (2008). Project final report. The Government Office for Science, London

October 2009

# Memorandum submitted by Uta Frith (LI 19)

#### COMMENTS ON

1. the Government's policy on literacy interventions for school children with reading difficulties

The report has reviewed evidence that a variety of programmes for beginning readers can significantly improve reading performance, but that they cannot "inoculate" children against later failure. Children who are dyslexic will show persistent difficulties throughout their lives. This means that intervention has to be persistent as well and is needed at secondary school age. This is the case even if an early intervention programme was successful at primary level. Thus it is not sufficient for interventions to target only young children as in Every Child a Reader.

# 2. the definition of dyslexia

The report produced an admirable definition of dyslexia that is workable in practice as well as being in line with current scientific evidence.

3. the evidence base for diagnosing dyslexia and teaching dyslexic children to read

The report comprehensively reviews the evidence base for diagnosis and intervention as currently delivered. The concern for the future is that teacher training for specialist dyslexia teachers needs to be monitored and placed on a scientific basis. The design of courses for specialist teachers needs to be thought out carefully in collaboration with dyslexia researchers to ensure that the best scientific evidence is continuously updated.

## **DECLARATION OF INTERESTS**

In the past I have collaborated on research projects with Professor Rea Reason and Professor Maggie Snowling. I have conducted research on the putative neurophysiological basis of dyslexia and have systematically reviewed different theories of dyslexia (published between 1996 to 2006).

October 2009

# Memorandum submitted by Julia Douetil (LI 20)

## READING RECOVERY

- 1. Summary: Considerable evidence supports Reading Recovery (RR) as an effective intervention for children who struggle to learn literacy. Children who receive RR are exceptionally low attaining readers and writers prior to intervention but, given intensive and focussed teaching, most can be lifted to age appropriate levels of literacy within a relatively short time, with the skills and understanding to continue to learn at a normal rate with their peers. The effectiveness of RR depends upon teachers engaging with a higher level of professional training. Providing a school with this additionally skilled teacher can have a positive impact on literacy learning and teaching, which extends beyond children receiving the RR intervention. Through Every Child a Reader (ECaR), an infrastructure of professional expertise in early intervention has been constructed throughout England, which has the potential to change the "long tail of underachievement" in our education system.
- 2. Submitted by Julia Douetil; Trainer and National Coordinator, European Centre for Reading Recovery, Institute of Education, University of London. My background is in Primary Education as a teacher, Head of an Infant Department and teacher educator. I have worked in RR for 16 years, teaching children with literacy difficulties, training teachers, training teacher leaders in a master's level course and training national trainers and coordinators in a doctoral level course.

# **EVIDENCE**

3. Target group: RR is an early intervention for those children in the mainstream school at the greatest risk of failing in literacy. After one full year of formal literacy teaching, children are screened using seven sensitive measures of early literacy (Clay, 2002) to identify the lowest attaining (Appendix 1). These children receive RR, irrespective of low intelligence, maturity, behavioural or attendance issues. This focus on the very lowest attaining is one of the characteristics that marks RR out from many other interventions.

- 4. *Progress*: Intensive teaching in RR accelerates the child's learning to four times the normal rate of progress, enabling them to catch up with their peers within a relatively short time (Appendix 2).<sup>38</sup> This rate of accelerated progress also marks Reading Recovery out from many other interventions. Children's progress is closely monitored at every level, children are assessed at the end of the intervention by an independent person in the school, not the RR teacher. Evidence from monitoring consistently shows eight out of 10 of lowest attaining children progress from being non- readers (reading age 4 years 10 months) to reading complex texts independently using a range of problem solving strategies (reading age 6 years 10 months, Appendix 2.2), gaining two years reading age in 40 hours teaching. Children who did not meet success criteria for RR still gained one year in reading age during six months teaching and were no longer non-readers.
- 5. UK and international research supports these claims. In London Y1 children who received RR were compared with similarly low attaining children in matched schools who received a range of other interventions. Those children who received Reading Recovery made significant gains in all assessments compared with those who did not and their reading age at the end of the year was in line with their chronological age. The comparison group was 14 months behind in reading age (Appendix 2.3). The independent What Works Clearing House in the USA gave its highest rating to Reading Recovery for research evidence of the effect on children's reading achievement. An improvement index showed "large and impressive" scores for RR students. Large scale research studies and those including randomised control groups also show significant effects for RR.
- 7. Long term gains. Early trials of Reading Recovery in the UK raised issues about children maintaining their gains. A study conducted in 1993 suggested that children in poverty and those at the very lowest end of the attainment distribution showed significant long term benefits two years after the end of the intervention. But for other children the long term effects appeared less robust. Changes were made to the programme to address these concerns (Appendix 3). The London study of 2008 found that a year after the end of children's RR lesson, at the end of Y2, 86.5% of the ex- RR children attained level 2 or above in national assessments in reading and 83% in writing, compared with 57% of the comparison group in reading and 58% in writing (Appendix 2.3). This confirmed UK monitoring evidence in 2004 showing that two out of three children who had been successful in RR went on to achieve National curriculum level 4 or above at age 11 (Appendix 3-2). Without RR these children were likely to attain below NC level 3 at end of KS2.
- 8. Although International Research has been mixed, there is a considerable body of evidence to corroborate the ability of children in RR to maintain the gains made, including a comparison study which found that RR children in Kansas were operating close to the mean of the whole ability range of their peers in fourth grade, three years after RR., and a control group study in Indiana which found between 83% and 92% of ex RR pupils reading at grade level up to four years after intervention(Appendix 3-3).
- 9. *Impact on schools*: Reading Recovery has, at its heart, exceptionally knowledgeable and skilled teachers who have engaged with a sustained, deep professional learning programme. The RR teacher course not only provides effective procedures for teaching, but hones teachers' observation, professional judgement and decision making (Appendix 4–1). One significant development of ECaR has been to capitalise on the expertise of the RR teacher to support literacy learning in schools. The effect on schools has been profound (Appendix 4.2) in changing expectations of what is possible for our most difficult to teach children. As one young RR teacher wrote to her colleagues "I have learnt from teaching Joshua that NO child should have their potential limited or have a top limit set on their academic achievement. We start with what they know—not what they do not know—and the sky is the limit!" (Appendix 4–3)

# RECOMMENDATIONS:

- Reading Recovery is an effective intervention for a particular group of very low attaining children.
   Schools should be enabled and encouraged to provide it for those children who need it.
- The benefits of reducing the number of children who fail in literacy accrue to whole education system, and to society as a whole (ref KPMG, CWBL). The costs of providing intensive intervention fall upon the KS1 provider—traditionally the least well funded sector of the educations system. Financial support for schools through Every Child a Reader has been an essential factor in enabling schools to train and maintain a RR teacher to address literacy difficulties.
- The challenge of Reading Recovery is that failure in literacy is not acceptable; every child has a right to effective literacy provision. In the past failure has been too easily ascribed to children and their family circumstances. The Head teacher of a successful Primary school which did not wish to participate in Reading Recovery commented that he met Government targets, and "only one or two children a year fail to learn to read. I can live with that." The truth is that he does not have to live with it—those "one or two children a year" do, and the effect on their lives is likely to be devastating. In the past three years a shift has begun from schools and LAs being held accountable for making provision for children with literacy difficulties, to their being accountable for the outcomes of that provision. This accountability should be supported as an obligation to children.

<sup>38</sup> There are 16 appendices to this memorandum. They are not printed here but are available from the House of Commons Library on request.

- The intensive professional development course for Reading Recovery teachers is not a luxury and should be supported throughout the UK. Growing an "in house" literacy intervention expert within schools has had an impact far greater than just the children in immediate receipt of RR. Short courses which deliver prescriptive "packages" cannot allow for the complexity and diversity of individual children's needs, whereas the development of teachers' ability to make professional judgements, to observe, assess and evaluate learning and teaching can support effective decision making throughout the school.
- Through Every Child a Reader an infrastructure of expertise has been built up, by which the lowest attaining children in almost any part of England can access Reading Recovery and other high quality literacy interventions. This network provides access to training and ongoing professional development for teachers and teacher leaders, as well as quality assurance and monitoring for schools, local authorities and government. This infrastructure is now available and should be maintained, to support schools<sup>3</sup> ability to make informed judgements about appropriate literacy intervention for their children, to provide a range of high quality interventions matched to need, and to monitor and evaluate the effectiveness of their provision for individual children and across the school. Through professional development and research in action it should support the refinement of practice, the development of new and better understandings and procedures, the improvement of existing interventions and the development of new ones where appropriate.

October 2009

# Memorandum submitted by the Centre for Reading and Language, Department of Psychology, **University of York (LI 21)**

We would like to bring to the attention of the Select Committee recent and ongoing research in our Centre addressing recommendations of the independent review Supporting children and young people with literacy difficulties/dyslexia (Rose, 2009):

#### 1. Early Identification

The review proposed an evidenced-based working definition of 'dyslexia'; it advocated that rather than implementing the use of whole-class screening batteries to identify children who fulfil this definition, teachers should identify children who do not progress at the normal rate in acquiring the foundation skills of reading (letter-knowledge, phoneme awareness and decoding skills).

With Alison Bailey, CLLD Consultant City of York LA, and through our recent standardization of a suite of reading tests (York Assessment of Reading from Comprehension; YARC) we have pertinent data relevant to whether teachers can identify such children and if they exhibit a dyslexic profile.

# 2. Validity of Teacher Observation

The Primary National Strategy (PNS) in England recommends the teaching of systematic phonics. Teachers using the programme are encouraged to evaluate pupil progress regularly using an observation schedule: "Phonic Phases".

During standardisation of the YARC we undertook a validation of Phonic Phases. We wrote to all of the 23 English schools who participated asking them to indicate, if they were using the systematic "Letter and Sounds" programme (PNS, 2007). If so they were asked to provide, for each child taking part in the standardisation, details of the Phonic Phase they had reached. We correlated the teachers' judgements with the reading skills measured objectively. We received 11/23 replies; 10 indicated the programme was in use. We received data pertaining to 197 children aged 4;05 to 7;09.

In this national sample, correlations between the Phonic Phase ratings and measures of letter knowledge and phoneme awareness were robust (>0.70) and particularly high with two tests of single word reading (YARC Early Word Recognition and SWRT (>0.80).<sup>39</sup> Thus, teacher assessments of children's reading attainments using Phonic Phases are valid.

3. Characteristics of Children who "Fail to Thrive" as Recipients of the "Letters and Sounds": **PROGRAMME** 

In December 2008, the CLLD Consultant for the City of York identified all children in the Year 1 cohort (N = 1758) who were not yet secure at Phonic Phase 2.<sup>40</sup> These children were deemed "at risk" of dyslexia (130 children in 37 schools; approximately 7% of the population).

28 schools agreed to take part and, after exclusions, informed consent was received from parents of 73 "at risk" children (54 boys, 19 girls; mean age of 73.18 months). Each child was matched on gender and age on the class register with a control to form a comparison group representative of the classrooms included.

For younger children (Nursery/Reception), the strongest predictors of Phonic Phase were Letter-Sound Knowledge (.84) and Early word Recognition (.83). For older children (Years 1/2), the strongest predictor of Phonic Phase was Early word Recognition (.77); the tests of Letter –Sound Knowledge and Sound Isolation were relatively easy for these children and hence not sensitive predictors of the Phonic Phase achieved.

<sup>&</sup>lt;sup>40</sup> Knowing fewer than 19 grapheme-phoneme correspondences.

Children were assessed on tests of reading, spelling, phoneme awareness, verbal processing speed and verbal memory (constructs included in the working definition of dyslexia). As a group, those "at risk" were significantly worse at reading and spelling than their peers (effect size  $\sim 2.03$ ); they also scored significantly below the control group on the dyslexia-related measures (effect sizes 0.8 for rapid naming to 1.60 for phoneme deletion). In addition they were assessed on measures of oral language and non-verbal ability (to provide a proxy for IQ). Group differences were significant but smaller in magnitude to differences on the dyslexia-related tests (effect sizes .37 to .55). 41

#### 4. EVIDENCED-BASED INTERVENTIONS

For a number of years we have been engaged in research using randomised trials to evaluate literacy interventions. We believe currently we have the largest data set in the UK relevant to the issue of dyslexia-interventions. We have shown that a systematic phonic approach incorporating training in phoneme awareness, letter-sound knowledge, reading from books at the instructional and "easy" levels is effective for poor readers in Year 2 and for children at risk in Reception and year 1. We have also completed a trial showing that oral language intervention is an effective strategy for overcoming reading comprehension difficulties.

We highlight a number of points:

- in all of our recent work, literacy interventions are delivered by trained teaching assistants (TAs) who are well supported. These TAs work with children individually and in small groups making the interventions highly cost effective;
- the gains made (in the region of 7-8 standard score points in 20 weeks) compare well with international comparisons;
- in field trials in North Yorkshire (in the absence of research-support) comparable gains have been recorded:
- a follow-up study in Year 6 (of children who received intervention in Year 1) showed that on average the children had maintained the gains made in reading in the intervention; although their reading fluency was somewhat below average, prose reading accuracy and comprehension skills were within the average range; and
- the interventions are suitable for children at Waves 2 and 3. However a significant minority (21–28%) fail to respond. Non-responders are characterised by a range of co-occurring difficulties including poor oral language and poor attention. We do not think there is good evidence of how best to intervene with such non-responders and this needs to be the subject of future research.

# DECLARATION OF INTERESTS

Snowling was a member of the Expert Advisory Group for the Independent Review (Rose, 2009).

October 2009

# Memorandum submitted by Dr Kim S H Rochelle (LI 22)

Issue: The Evidence Base for Diagnosing Dyslexia and Teaching Dyslexic Children to Read Theme

Threats to the future of dyslexia research (diagnosis, causal mechanisms, comorbidity and reading interventions) from the statutory regulation of practitioner psychologists under the current Health Professions Council protected titles framework.

- 1. The statutory regulation of psychologists was introduced on 1 July 2009. On that date, all practitioner psychologists entitled to use one of seven protected titles were automatically transferred to the Health Professions Council (HPC) register from the British Psychological Society (BPS). However, there are University based practitioner psychologists holding BPS Practising Certificates and specialising in dyslexia research from diagnosis to intervention, who are not entitled to use one of the protected titles and for whom transfer to the HPC register is not guaranteed. I would like to bring this to the attention of the Committee because of the future implications for University research groups with a special interest in dyslexia.
- 2. The BPS will no longer issue Practising Certificates; this responsibility has been passed to the HPC. Typically, dyslexia assessment centres within Universities have made a charge for services, because it is unethical to offer assessments in return for research participation. Without HPC registration, University based BPS qualified practitioner psychologists who offer evidence based assessment and intervention (such as members of dyslexia specialist research groups) may no longer be able to offer and charge for such services. Existing practitioners may apply for HPC registration via the "grandparenting" route, based on their years of experience as practitioners, but acceptance is not guaranteed. Furthermore, the "Educational

<sup>&</sup>lt;sup>41</sup> Some 60% had more significant difficulties with non-verbal or oral language skills and approximately 40% of these children performed within the normal range (data analysis in progress).

Psychologist" title may be too broad for a dyslexia specialist psychologist. The HPC acknowledges that University based psychologists who are not entitled to use one of the protected titles are not currently regulated and that there is a need for some University based psychologists to register but as yet there are no published guidelines:

"Psychologists and teachers who work purely in academic, research and experimental psychology and do not offer psychological services to the public . . . will not legally need to become registered. However there is an expectation that those who are wholly or mainly engaged with teaching on postgraduate courses will need to register as they, and their students, will be working in applied settings with members of the public." (HPC, 2009).

- 3. Under the HPC Framework, the future route to registration and legitimate practice for anyone with an interest in dyslexia research and practice will be to follow a less specific Professional Doctorate in Educational Psychology, PhD students enrolled on doctoral degrees by dyslexia research and thesis will still find themselves entitled to apply for BPS Full Registration as Chartered Psychologists on graduation. However, they will no longer be able to train and develop as practitioners. This has serious implications for the continuing recruitment of dyslexia assessors within Universities.
- 4. Irrespective of obtaining adequate funding, dyslexia research is dependent upon access to large clinical populations. Traditionally, dyslexia research has been made possible by offering individuals, who have been assessed for dyslexia within the University, the opportunity to participate in research programmes. My potential research pool increases each week and currently comprises 360 children, young people and adults. This affords the opportunity for discrete and longitudinal research projects for in house, collaborative and translational research projects. However, the proportion of assessed individuals who decline to participate and refusal/drop out rates are commensurate with those of other empirical research studies. As a consequence, the potential research pool needs to be dynamic and regularly "topped up". Therefore, the University needs to continue to offer dyslexia assessments to secure our dyslexia research base.
- 5. Finally, University research communities traditionally share resources and knowledge in applied settings with their local community. HPC registered clinical psychologist colleagues within my research group apply their practitioner expertise to their clients and the University charges for their services. For example, the NHS outsources services such as EEG and MRI scans to the University and this also generates potential research participants for our neuroimaging research group. In University dyslexia assessment centres, clients have typically had their request for assessment in the state system turned down or are from the independent sector. The current HPC framework places Universities at risk of not being able to offer dyslexia assessments to the public and dyslexia research groups, such as mine, at risk of losing access to potential research participants. Who is better placed to inform research than the academic practitioner?

Professions Concil (2009) http://www.hpc-uk.org/aboutregistration/aspirantgroups/ The Health psychologists/

Rose, J (2009) Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties. http://publications.dcsf.gov.uk

# DECLARATION OF INTEREST:

I am a Chartered Psychologist with a British Psychological Society (BPS) Practising Certificate valid until 30 April 2010. A mature student, I obtained a PhD in Neurosciences by research and thesis from Aston University in 2006. My thesis title is "Deficits in motor control: causes or correlates of reading disability". Concurrent with my PhD research in dyslexia, I also trained in the psychometric assessment of ability and attainment of children, young people and adults with dyslexia, in the Aston University Dyslexia and Developmental Assessment Centre. The Centre was established over 30 years ago by Dr Margaret Newton (co-author of the Aston Index, one of the earliest diagnostic tools for dyslexia assessment available to teachers). I obtained my BPS Practising Certificate with Full Registration as Chartered Psychologist on completion of my PhD and one year post-PhD supervision. I am currently employed by Aston University as clinical/teaching fellow. I conduct psychometric assessments in the renamed Dyslexia Clinic, liaise, collaborate and facilitate research projects with colleagues. I am a member of the Aston University Life and Health Sciences Clinical and Cognitive Neurosciences Research Group; the group convenor is the newly appointed editor of Dyslexia and the Chair of the British Dyslexia Association Conference 2011 (I am a member of the steering committee). I am developing a peer reviewed publications portfolio; citations include the Rose (2009) report. I consider myself to be an academic psychologist with a specialism in dyslexia research who is also a practitioner psychologist with extensive experience of assessment and intervention in dyslexia. I will be applying for HPC registration via the "grandparenting" route but with reservations about claiming the "Educational Psychologist" protected title.

October 2009

## Memorandum submitted by Dr Ian Smythe (LI 23)

#### DEFINITION OF DYSLEXIA

Due to being out the country, I am unable to submit in the timescale and complying to the standard format. However, rather than not submit, I offer the following in the hope that it will at least be considered:

"Dyslexia is a difficulty in the acquisition of fluent and accurate reading, writing and spelling that is neurological in origin."

This definition of mine has appeared in various books, papers and presentations. (References available upon request.)

#### **EXPLANATIONS**

"Difficulty" rather than "difference" as used by the European Dyslexia Association, since everybody is different, and this word confirms it is a problem within society.

"Difficulty in the acquisition" means they have problems learning, which needs to be measured over time.

"Difficulty" means in comparison to others

"Fluent and accurate"—Although accuracy is often the criteria used in the English language, the older dyslexic individual can often perform the task accurately but at a slower speed. Also, in many languages (including to some extent Welsh), due to the nature of the sound letter correspondence it is easy to spell, but the time taken by the dyslexic individual is considerably longer than the non-dyslexic individual.

"Reading, writing and spelling" ensure that all areas are covered, though this could be replaces with "literacy skills". Some definitions only mention reading. However the cognitive difficulties that impact upon reading also cause problems with spelling and writing. Therefore is would see illogical to not mention all areas.

"Neurological in origin" mean that it is not a result of external factors such as teaching.

The above holds true for all languages and cultures.

It is similar to the Health Council of the Netherlands (1997), the British Psychological Society (2001) and NICHD/IDA (2001) definitions.

It is a symptom based definition, as opposed to causal or prognosis based.

This information is more fully discussed in *Dyslexia in the Digital Age* by Ian Smythe, due to be published in January 2010. Since the copyright belongs to Continuum Books, the full text cannot be submitted to Committee without the consent of the publisher.

Should the committee require further information on this subject about which I have written extensively, including criticised other definitions, please contact me through this email address.

October 2009

# Memorandum submitted by Fionna Pilgrim (LI 24)

I am the mother of a dyslexic child.

My daughter was virtually a non-reader at age 15. Though bright enough not to be behind, overall, by more than two years, she was assessed by the then Dyslexia Institute as having a reading age of seven years two months and a spelling age of seven. Despite two years of Dyslexia Institute intervention, as well as input from school, little had changed.

I read the book, *The Gift of Dyslexia* by Ronald D Davis with Eldon Braun and my daughter did a 30 hour Dyslexia Correction Programme, delivered over a week. Since the end of this programme she has never needed her tinted lenses for scotopic sensitivity and she has been a reader. Her self-confidence was greatly boosted and at 25 she has a BMus (Hons), has started a further degree in Osteopathy and is working towards her Montessori Diploma.

I am also a qualified Montessori Teacher and have trained in the Davis Methods my daughter experienced and now work with adults and children with Special Educational Needs. I am also currently training to deliver the Davis Autism Approach, which allows an autistic person the opportunity to participate fully in life.

I would like to thank the committee for allowing me to address you with my concerns.

1. Basis of Government policy on literacy interventions for school children with reading difficulties

I imagine that any new government policy on literacy interventions for school children with reading difficulties is likely to be based on the report commissioned by Government in May 2008, compiled by Sir Jim Rose and published in June 2009.

# 2. Evidence supporting the teaching of reading.

The Rose Report sites many different research studies, most of which seem to compare different methods of, primarily, phonic instruction. If we focus on the Scottish study: http://www.scotland.gov.uk/ Publications/2005/02/20682/52383 and the North Yorks Study: http://www.york.ac.uk/res/crl/downloads/ TheNorthYorksReadingInterventionProjectReport.pdf both show evidence of positive outcomes for children taught using synthetic phonics, but both demonstrate a significant percentage of non-responders: by the end of the Scottish study though only 5.6% of the children are more than two years behind their chronological age in word recognition, 14% are more than two years behind their chronological age in comprehension; while in the North Yorks study: figure 2 on page 8 of the report shows that some 25% of the children in research group were not only described as non-responders, but their ability had diminished over the years of the study.

## 3. The evidence base for teaching dyslexic children to read.

It would appear that no testing of whether the teaching methods recommended by the Rose Report work for dyslexic children has been carried out: because none of the children in the studies used by Sir Jim Rose was pre-screened for dyslexia.

However, since there is an empirical estimate that 10% of the population is likely to be dyslexic, it might be reasonable to hypothesise that those non-responders to phonic instruction, whose reading did not improve, may well be dyslexic. Of course, without some further targetted research, we cannot be sure of anything except that there is a significant group of children that does not respond to phonics, whether synthetic or analytic.

Moreover there is certainly an evidence base for an effective method of teaching children, particularly those with severe and persistent reading impairment, where phonlogical intervention has failed.

This research, carried out in South Africa: http://english.rene-engelbrecht.co.za/research/ shows significant success and the research to be found here: http://www.davislearn.com/research.htm is based on a different approach to teaching reading from the start, suitable for and successful with those who would develop dyslexic problems and those who never would.

I did draw this to the attention of Sir Jim Rose when he first called for input from stakeholders, as did others I know who have found this method helpful.

# 4. Evidence that phonics are not the solution for dyslexics in the long term

Research papers by:

McCandliss B, Cohen L, Dehaene S, The visual word form area: Expertise for reading in the fusiform gyrus. Trends in Cognitive Science, 13:155–161, 2003.

Shaywitz B, Shaywitz S, Pugh K, Disruption of Posterior Brain Systems in Children with Developmental Dyslexia. Biological Psychiatry 52:101–110, 2002.

Whitney, Carol. How the brain encodes the order of letters in a printed word: the SERIOL model and selective literature review. Psychonomic Bulletin & Review, 8(2):221-43, 2001 demonstrate exactly why and how it is that children over 8 still using phonic methods to decode are unlikely to become fluent readers. This link: http://www.positivedyslexia.com/reading/article\_brain\_function.htm will allow you to read a review of how these studies support the outcomes of the research I mentioned earlier.

## 5. Issues with the recommendations of the Rose Report

Back in June, when The Rose Report was published, there was an announcement emblazoned through the media that 4,000 teachers would be trained to support dyslexics in school. This made an excellent soundbite, but would not even mean a dyslexia expert in every school.

And what will these 4,000 teachers be trained to do? There is no suggestion in the recommendations of any intervention to help those who were the non-responders in the studies on which the recommendations were based.

# 6. Definition of Dyslexia

I would call on the Select Committee to radically rethink their definition of dyslexia. Yes, these children frequently show symptoms of phonological impairment and poor vocabulary skills; often their speed of processing is slow and they appear to have problems with attention control; yes, their reading problems are severe and persistent and their response to apparently effective and undoubtedly well-implemented intervention is poor; but, if you simply recognise that these children have a different thinking/learning style

and respect that and provide information in a way that takes it into consideration, most of them will quickly leave behind the majority of those symptoms. They are the symptoms of a teaching, rather than a learning difficulty. A difficulty greatly compounded by the early age at which we expect children to start formal education and be fluent readers.

October 2009

## Memorandum submitted by Sara Kramer (LI 25)

I am the mother of a son who is dyslexic. When he was diagnosed as dyslexic (aged eight), in 1999, we embarked on a phonic based intervention programme. This had limited success despite considerable time and effort. The lack of success he was experiencing contributed to his low self-esteem and self-belief that he was an academic failure.

I met someone who was studying to be a Davis Facilitator (multi-sensory methods based on *The Gift of Dyslexia* by Ronald D Davis with Eldon Braun) and the underlying assumptions made sense. My son has worked through many of the exercises and was withdrawn from phonic-based support programmes at school. When recently assessed by an Educational Psychologist, it was noted that it is rare to meet a dyslexic child who is so comfortable in his own skin. My son is now 18 and has achieved four "A" grades A levels.

I am now a licensed Davis Facilitator (www.dyslexia.com) and work with adults and children with Special Educational Needs. I am Secretary of the Davis Dyslexia Facilitator's Assoication in the UK.

I have completed a PGdip in Adult Dyslexia Diagnosis and Supoport (LSU) and I am working towards the PgCert ADDS.

I apologise for my late submission and hope that you will still be able to include it. A paper copy of my submission is in the post. I thank you for allowing me to address you with my concerns.

## 1. EVIDENCE THAT PHONICS ARE NOT THE SOLUTION FOR DYSLEXICS IN THE LONG TERM

- 1.1 The Rose Review draws many of its conclusions from Dr Singleton's report *Review of International Research*. This report acknowledged that specialist dyslexia teaching approaches "may be summarised as being systematic, multisensory and phonologically based" (p 6), the eight studies which specifically included children with dyslexia or learning difficulties only assessed phonological interventions.
- 1.2 Whilst the other studies reviewed clearly show that a phonological approach has benefits to poor readers, it is less clear to what degree the benefits are experienced by dyslexic readers. It is also quite possible that the group of children who failed to respond to a particular approach may have comprised dyslexics.

For example Hatcher, Hulme *et al* 2006 Reading Intervention, around 25% of the children did not respond to the intervention.

- 1.3 It should be noted that only three UK studies comprised purely dyslexic students. Two of these had good results but one, the IA&T intervention, resulted in the initial gains being partly lost over the following six months and, in one study, over 60% of the students still required significant support. This set of results highlights the importance of using a range of interventions in order to achieve a high level of sustainable improvement.
- 1.4 Studies in the 1980s (Augur 1985, Haslum 1989 and a large amount of anecdotal evidence) have concluded that many dyslexic children have difficulties with skills which are independent to phonological processing.

Nicolson and Fawcett (Dyslexia is more than a phonological disability, University of Sheffield, 1994) there is also "persistent evidence from a number of sources that dyslexic children suffer problems in skills quite independent of phonological processing."

A diagnostic assessment for dyslexia will evaluating not only phonological processing skills but also verbal memory and verbal processing speed, and visuo-motor skills.

## 2. DEFINITION OF DYSLEXIA

# 2.1 The social-model of dyslexia. There is nothing wrong with being dyslexic per se

The social-interactive model of dyslexia (Herrington and Hunter-Carch 2001) recognises dyslexia as a social construct. Dyslexia needs to be perceived as neurodiversity not a disability. They conclude "only when learning differences are perceived as normal and literacy practices accessible for all, can we be confident about effective learning for all."

2.2 Ross Cooper, assistant director of LLU+, argues (Neurodiversity in Higher Education, 2009) that it is now time to see dyslexia as a social construct, not a deficit. He argues that trying to understand the nature of dyslexia by examining an apparent weakness is like trying to understand the nature of left-handedness by examining the difficulties that these individuals have with their right-hand.

- 2.2 The negative social response to dyslexia often causes a dyslexic person to try and hide their difficulties and it is important that a whole-school approach is developed to support these students and develop their strengths.
- 2.3 Whilst the majority of the population think verbally and sequentially, this is not always true for a person with dyslexia. Many of them have a strong preference for visual thinking and holistic processing. This difference in thinking style requires a different learning style and a different form of learning support.
- 3. Dyslexic children need more than multi-sensory phonic-based remedial support. Their strengths need to be recognised and developed as a learning-style to be used throughout the school system. For example, when the multi-sensory Davis classroom strategies are integrated into the normal school curriculum in the early years, dyslexic strengths are developed and the associated difficulties decrease significantly, http:// www.davislearn.com/research.htm

Visual, multi-sensory strategies are effective for all learners and will reach the students who fail to respond to classroom phonics.

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# Memorandum submitted by Dr Susan Burroughs Lange (LI 27)

EVERY CHILD A READER: READING RECOVERY RESEARCH STUDY

- 1. Summary: A detailed study of the impact of Reading Recovery as a part of Every Child a Reader showed significant advantages for the lowest attaining children who received Reading Recovery compared with a matched comparison group who received a range of literacy interventions in addition to normal class teaching. Follow up one year after the end of the intervention, at end of KS1, showed that the gains made by Reading Recovery children had been sustained. Indicative results of a further follow up three years after the end of the intervention, at end of KS2, is expected to show that Reading Recovery children have continued to maintain the advantage.
- 2. Submitted by Dr Susan Burroughs Lange; Trainer and National Coordinator, European Centre for Reading Recovery, Institute of Education, University of London.
- 3. Declaration of Interest: I am employed as a Reading Recovery Trainer, with an overview of research, at the European Centre for Reading Recovery, Institute of Education, University of London.

# EVIDENCE

- 4. It is a feature of Reading Recovery (RR) that, wherever it is implemented it is subjected to continuing scrutiny through research and monitoring. From the first inception of Every Child a Reader, there was an expectation that research would evaluate and inform the programme.
- 5. Any research into RR faces a number of practical and ethical challenges. Reading Recovery is a real world programme, involving the most vulnerable children, supported by a complex infrastructure of professional development, which requires a degree of commitment at school, local authority and national level. Schools have an obligation to place the welfare of individual children above any research protocols. One to one teaching is costly so children only stay in the intervention for as long as they need, have different lengths of time in the programme and can start and finish lessons at different times in the year, with some children continuing across the summer break. Research practices such as random allocation to treatment and control groups within the same school create an ethical dilemma— Headteachers are rightly unwilling to allocate a costly resource to children who may not need it and withhold it from children who do, for the sake of a research study.
- 6. The expansion of Every Child a Reader created an opportunity to identify Local Authorities and schools not yet engaging in RR but willing to participate in a research study. To ensure objectivity, the study was overseen by an independent steering group, led by Professor Greg Brooks, and data analysis provided by an independent researcher at the Institute of Education.
  - 7. The evaluation asked the following questions:
    - Does the programme succeed in its aim of getting children back to average literacy levels for their age?
    - Can we be sure that these children would not have learned to read and write just as well without
    - Do the effects last, or do they "wash out" over time?
    - Does the programme have a wider impact on standards within schools, beyond those children directly taught?
    - Does the programme work in challenging circumstances—in schools where it is hardest to raise standards?

- 8. In 2005, 21 schools with RR in five London districts were carefully matched with 21 schools without RR in different London districts, all among the lowest achieving in England. The schools were equivalent in size (average 355 pupils), economic disadvantage (average 41% free school meals) and children with English as an additional language (average 49%).
- 9. The literacy progress of all the lowest achieving six year-olds was compared at the beginning and end of the 2005–06 school year, and again at the end of 2006–07 using a range of assessments including independent standardised tests. Literacy progress of whole classes (1,166 children in all), including these lowest groups, was also assessed. All schools offered some children extra support as well as classroom literacy teaching.

## INITIAL FINDINGS

- 10. In September 2005, the 292 lowest-achieving children were unable to read the simplest texts, could only recognise a few letters, and write about six words correctly. At the end of the year, the study showed that most of these children had made very little progress.
- 11. The exception was the group of 87 children who received between three and 20 weeks of RR teaching during the year. From similarly low starting points they had, on average, gained 14 book levels, 20 months in reading age, and could write 45 words correctly, successfully catching up with their average peers. This group included all children who had received Reading Recovery, even those who had received only a few lessons.
- 12. In comparison, the 147 children in schools without RR had gained on average only three book levels, seven months in reading age, and could write around 21 words correctly. In addition, class teachers reported greater progress across a range of learning and social behaviours from those children who experienced RR.
- 13. In 2005–06, the Year 1 classes in schools with RR (566 children) were five months ahead in reading of those without RR provision (600 children). This provides evidence of wider impact beyond those children receiving the intervention.

#### ONE YEAR FOLLOW UP FINDINGS

- 14. Follow up assessments took place in July 2007. Children who had received RR in 2005–06 were, on average, achieving within or above their chronological age band on all measures and were still around a year ahead of the comparison children. They had a 12-month advantage in word reading and an 8.5-month advantage on word reading and phonic skills. In writing, they were still able to write around twice as many words correctly as the comparison children.
- 15. In national assessments (age 7+) more than 86% of ex RR children went on to achieve NC level 2 in reading, compared with 57% comparison children. In writing over 83% of ex-RR children went on to achieve level, compared with 57% in comparison children.

# THREE YEAR FOLLOW UP

16. Data collected during the ECaR study has subsequently been handed to an independent researcher, who has been conducting a long term follow up as the children reached national assessments the end of Key Stage 2 in 2009. This study is still in progress, and Reading Recovery personnel have not been involved in any way. The research is expected to report later in 2009, but initial analysis of the findings indicates that RR children have a statistically significant advantage over comparison children at end Year 4, a full three years after the end of the intervention.

# RECOMMENDATIONS:

- 17. Evidence confirms that Reading Recovery provides an effective early intervention for the children most at risk of literacy difficulties, which has lasting benefits. The committee should supported schools' endeavours to make Reading Recovery available to the small group of children for whom, currently there appears to be little else which meets their needs.
- 18. The evidence of the potential Reading Recovery to ensure that every child can become an accomplished reader and writer at an appropriate age, suggests that the Committee should treat the phrase Every Child a Reader not as a name, but as an expectation.
- 19. Although the small proportion of children who do not achieve the goals of every children do make progress, the committee should recommend further research to find ways of enabling even these most complex children to overcome their problems.

October 2009

# Memorandum submitted by Professor Roger Beard (LI 28)

THE EVIDENCE BASE FOR THE EVERY CHILD A READER PROGRAMME

- 1. The evidence base for the Every Child a Reader (ECAR) programme needs to be studied within the broader context of the evidence on the Reading Recovery early literacy intervention programme which forms the core of ECAR. Reading Recovery is an intervention programme designed for children who have literacy difficulties at the end of their first year at primary school. It involves reading and writing in a daily one-to-one lesson with a highly trained teacher for a period of between 15 and 20 weeks. At the end of that time, most children have caught up with their classmates and can read and write at a level appropriate for their age.
- 2. Conceptually, Reading Recovery is distinctive, in that its design does not pre-judge causes or likely lines of productive remediation for children experiencing delays in literacy development. It combines six activities that allow for interactive growth and development across skill and practice domains (reading and writing; whole word recognition and decoding; syntactical awareness and manipulation; practice and application). Reading Recovery also builds in resources for learners' further capacity-building, including the accumulation of a personal library for the re-reading of favourite books. It is informed by formative assessment and enshrined in individualised guided practice. For an accessible summary see http:// www.ericdigests.org/1996-2/reading.html.
- 3. More generally, Reading Recovery fits the implications for effective practice from a range of scholarly reviews of research evidence which indicate that early intervention is generally more effective than later intervention (Wasik and Slavin, 1993) and that individual interventions are generally more effective than group interventions (Elbaum, Vaughn, Hughes and Moody, 2000; Invernizzi, 2001).
- 4. More recently, a number of studies have drawn attention to the implications of non-action (eg KPMG, 2009). The KPMG report reviews the research on the long term consequences of literacy difficulties for individuals and for society; estimates the costs to the public purse that result; and estimates the return on investment of early intervention to address literacy difficulties.
- 5. A recent comparison of literacy progress of young children in London schools, a reading recovery follow up study (Burroughs-Lange, 2008), provides important evidence of the benefits of early intervention. This study followed up the impact on children's literacy in London schools a year or more after intervention had been received. In the 2005-06 school year literacy progress was compared of the lowest achieving children in 42 schools serving disadvantaged urban areas. The children, aged around six years, who received Reading Recovery in their schools, were compared with those in schools which provided them with a range of other interventions. At the start of the study the children had literacy levels below those of an average five year old. In the year of the main study (2005-06), those children who received Reading Recovery achieved significant gains in all assessments compared with those who did not. At the end of the year the literacy achievement of children who had received Reading Recovery (RR) was in line with their chronological age. The comparison group was 14 months behind with an average Reading Age of 5 years five months. In July 2007 the literacy achievement was again compared of those same children remaining in the same 42 schools. The phonic and word reading, and writing measures were repeated along with a new reading comprehension measure. At the end of Year 2 the children who had received RR in Year 1 were achieving within or above their chronological age band on all measures and were still around a year ahead of the comparison children in schools where RR was not available. The RR children had an average word reading age of seven years nine months, compared to six years nine months for the comparison children. The gender gap that was noticeable amongst low attaining comparison children, with boys lagging behind girls, was not evident in RR schools, where there was no gender gap. Writing achievement showed a significant difference between RR and comparison children. At the end of Year 2, the children who had received RR were able to write twice as many correctly spelled words as those children who were in the comparison group.
- 6. Over 86% of those who received RR in Year 1 went on to achieve an age-appropriate Level 2+ in National Curriculum Reading assessments at end of Year 2. This percentage is higher than the whole national Year 2 cohort, of whom 84% achieved Level 2+ in 2007. 77% of RR children achieved National Curriculum Level 2b+ (the national cohort figure was 71%). None of RR children were working towards Level 1 (non-readers). Comparison figures for the lowest achieving children in non-RR schools were 57% achieving National Curriculum Level 2+ and 30% Level 2b+. In the comparison groups almost 10% of low achieving group were still non-readers (working towards Level 1). In writing, over 83% of those who received RR in Year 1 went on to achieve the age-related National Curriculum Level 2+, compared to 80% in the 2007 national Year 2 cohort, and 57.7% in the comparison groups.
- 7. The study also followed up progress in classroom literacy. A word recognition and phonic measure was repeated and Progress in English 7 comprehension measure was used with the Year 2 classes. Children in sample classrooms with Reading Recovery available to the lowest group when in Year 1, ended Year 2 with an average reading age 3+ months above that of children in comparison Year 2 classrooms.
- 8. The conclusion to this report reminds us that, as a greater range of early literacy interventions become widely available, there is an ethical and financial press to demonstrate that investment is able to effect changes in children's learning that are not merely beneficial but are sufficient to bring them to a learning

trajectory appropriate for their age. Equally important is to secure evidence that the re-directed trajectory continues beyond the period of the intervention itself. Successive evaluations of Reading Recovery indicate that this is possible.

## REFERENCES

Burroughs-Lange, S (2008). Comparison of Literacy Progress of Young Children in London Schools: A Reading Recovery Follow up Study. London: Institute of Education, University of London.

Elbaum, B, Vaughn, S, Hughes, MT and Moody, SW (2000). *How effective are one-to-one tutoring programs in reading for elementary students at risk for reading failure?* A meta-analysis of the intervention research. Journal of Educational Psychology, 92, 4, 605–619.

Invernizzi, M A (2001). *The complex world of one-to-one tutoring*, in SB Neuman, and DK Dickinson (Eds.), Handbook of early literacy research. New York: Guilford Press.

KPMG (2009). The long term costs of literacy difficulties (2E). Online. http://readingrecovery.ioe.ac.uk/pages/index\_Long\_term\_costs\_literacy2ndedn\_final.pdf (accessed 25 October 2009).

Wasik, BA. and Slavin, RE (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs, Reading Research Quarterly, 28, 2, 179–200.

#### DECLARATION OF INTEREST

Roger Beard has researched and published widely in the field of children's literacy development. He undertook a LA-funded study of the introduction of reading recovery into the Dearne Valley, South Yorkshire, in 1992–93. He is currently Head of the Department at the Institute of Education, University of London where the European Centre for Reading Recovery is located.

October 2009

# Memorandum submitted by Derrie Clark (LI 29)

## WHAT IS DYSLEXIA?

I have been an Educational Psychologist for 15 years working at the school/classroom level within a Local Authority and I still do not know what dyslexia is. I have attended SEN tribunals where the "definition" of "dyslexia" has changed according to the presenting "symptoms" in the pupil. I also see discriminatory allocation of resources as a result of the "dyslexia" label.

In every document/report I have read on the subject, the term 'dyslexia' is peppered throughout as if there is shared understanding of what "dyslexia" is. Some documents provide a "description" of presenting "symptoms" but then use the term as if it is a "given".

As far as I can see, "dyslexia" (dis-word) is difficulty learning literacy at the printed word level (ie where the pupil has gaps in conceptual and factual knowledge relating to the English alphabet code and/or the three skills of segmenting, blending and phoneme manipulation) as a result of teaching methods together with insufficient opportunity to practice the skills to a level of proficiency and generalise conceptual knowledge to a consistent level of understanding. Therefore, this must cover ALL children with literacy delays. As mentioned above, such difficulties are, in my experience, far more dependent on teaching methods / learning opportunities rather than within child factors or being fixed over time. The English Alphabet Code is "man-made" and we do not have a "natural" predisposition to acquire it as we do our spoken language (and, incidentally, as assumed by Reading Recovery, see below). Children have to be taught and need opportunities to practice the phonological and visual sequencing skills required to be automatic in the reading and spelling process, particularly those from homes that do not share the same school/education culture, eg, working class. It is essential we move out of the mindset that assumes parents will teach their children to read. This must be the job of our schools. We cannot go on having young people go through 11 years of statutory education not having been taught to read and write to a proficient level. At this point, I have to say it is interesting how those previously labelled "dyslexic" often go on to get their degrees, doctorates and professional qualifications—what definition of dyslexia is theirs?

Data collecting for evidence base: Reading and spelling test scores should be carried out on all pupils leaving Secondary Schooling (including NEETs).

## LITERACY TEACHING AND INTERVENTIONS IN PRIMARY SCHOOL

Here is a typical scenario from my day to day work as an Educational Psychologist linked to a group of schools. (The information and letters I have received in response to my correspondence to the Government Departments reflect no understanding whatsoever of what is really happening in schools at the chalk face. Much is assumed at the policy making level this is not actually the case):

A boy in Year 4 (aged approx nine years) with a reading age of less than six is referred to me because of concerns about his slow progress across the curriculum. He cannot read or write a sentence. The Year 4 National Curriculum demands that his class covers such things as similes, persuasive writing, putting words/ names in alphabetical order etc (and now, of course, French).

During my assessment I ask the pupil to bring his writing book and reading book to show me. Neither he nor I can read what he has written in his book. I can though read the Learning Intention which he has copied neatly off the board into his book. When I attempt to elicit his understanding of the concept he has no understanding of it. (I wonder how this lad spends much of his time in school?) When I ask him to read his book, he makes up the text as he goes along and remembers some of it from the pictures.

Assessment at word level shows gaps in skills and alphabet code knowledge. The boy needs at least one hour daily systematic linguistic phonics input to develop his word level skills and understanding that there has not been time to teach him through KS1. If he had one hour in the morning and one hour in the afternoon of systematic linguistic-phonics (in a group with the other pupils in the class also at his level) then he would be able to catch up with his reading in one term. Instead he has continued at this literacy level through Years 5 and 6 and has just recently transferred to secondary school with a reading age of less than six years.

So why does this intervention not happen?

- No one is trained to provide the pupil with what he needs so he (the most needy of pupils) is left with a TA (the least trained of adults) who thumbs through boxes of worksheets or who attempts to delivery Letters and Sounds (which is not an intervention programme) as advised by the Advisors, at Stage 1 where he listens to and discriminates sounds in his environment (despite being in Year 4).
- The teachers are trained by their colleges to focus on delivering the curriculum rather than to focus on ensuring that every child leaves their class with at least the basic skills in literacy and numeracy. By Year 2 (sometimes Year 1) the assumption is that these basic skills are in place. PLEASE we don't need to go down the route of trained "specialist dyslexia" teachers. No one knows what this means! ALL teachers should know how to teach reading and writing. They should not be made to feel disempowered or de-skilled.
- The school argue they do not have the resources (to teach literacy???)
- The school believe literacy difficulties/delays are due to within child problems rather than something that can be changed through teaching. This is perpetuated by the use of the term ""dyslexia" in government documents and training. (You can almost hear the sigh of relief when responsibility is placed once again with the child and outside of their powers.)
- The child's parents are not articulate and cannot find a way through or to understand the system.
- The parent is unable to teach the child to read as she has poor literacy skills herself.

For every boy like the one in this referral there are often as many as six others in the same year group/ class with the same levels of literacy. The teachers do their best to differentiate the presentation of the curriculum, leaving the TA's to help these pupils as best they can.

Evidence base: All secondary schools carry out reading and spelling tests on all pupils in Year 7. I recommend this data is collected to inform literacy levels rather than the SATs.

# A further anecdote:

A boy in Year 11 in secondary school. He is taught to read through a systematic linguistic phonic approach. He asks his teacher: Why didn't they teach me this in Junior School Miss?

# READING RECOVERY

Ruth Kelly, partly in response to the concern of CBI and Universities around literacy levels of young people, decided to go down the route of Reading Recovery. Unfortunately she did not wait for the outcome of the Rose Review which was taking place at the same time. By the time Rose's findings were published, public funding had already been injected into rolling out Reading Recovery. Now it seems to be assumed that Reading Recovery and synthetic phonics are compatible when they are not.

Through Reading Recovery there is an underlying assumption that children acquire "reading" naturally as they do spoken language. Only limited use is made of phonics as there is an emphasis on pre-teaching vocabulary that comprises the text of the RR readers. When children come across a word that they have not previously been taught they try to guess at it from the picture, or from reading on in the sentence (even though they may not be able to read the following words). Eventually the adult tells them the word. This leaves the pupil with a learned helplessness that they don't have when they are taught to decode systematically.

Many children plateau as their visual memories become "full" and they have no other word attack/ decoding strategies. This also happens for children across the school who have been brought up on a diet of whole language/whole word and multi cuing approaches (through such things as the Search Lights Model and the cascading through Better Reading Partnership BRP). There is typically a dip in Year 3 and then in Year 7 as children do not have the strategies to access the demands of the printed vocabulary in the curriculum.

The evidence base for RR is collected through the Institute of Education which has a huge amount of resources to collect data. There are however no controlled comparison studies or peer reviewed research papers. Many children are discontinued and not included in the data. Also any gains are not maintained over time.

I have been working with two schools who are happy with the systematic and cumulative linguistic phonic approach which they are using across the school. These schools though have just been offered extra resources through RR which they feel they cannot turn down. They have not been offered the choice to use the money to continue to build on the interventions for their chosen linguistic phonic approach. This leads to the issue of mixed messages where Central Government a promotion conflicting strategies for the teaching of reading resulting in confused children and confused teaching practitioners. This is despite the Rose Review which recommends consistency and fidelity to the chosen phonic programme.

October 2009

# Memorandum submitted by the National Association of Head Teachers Special Educational Needs Committee (LI 30)

There is an essential need for early intervention, so that those children with dyslexia are separated out and earmarked for specialist help, from those children whose difficulties "getting off the ground" in developing their literacy skills stem from another cause (such as speech and language difficulties, lack of stories/books at home, mild hearing impairment etc.)

All children who are struggling to become readers need extra help and most will respond quite rapidly. Those who do not will include those who have dyslexia and need more structured and specialist help in the longer term.

October 2009

# Memorandum submitted by the INDIGO (Foundation) Norfolk (LI 31)

Declaration of Interest; This paper is submitted by INDIGO (Foundation) Norfolk, which is a provider of active services to dyslexic people of all ages. It is a registered charity and a LTD company, it has a wholly owned subsidiary which operates the INDIGO Dyslexia Centre in Norwich. The organisation is not for profit. www.4dyslexics.com The chairman (Jenny Parsonage) is also a trustee of the BDA, however this paper is the views of the INDIGO organisation only.

- 1. The government policy on literacy intervention for school children with reading difficulties:
  - The government policy needs to be carefully monitored and managed, our experience shows that parents (over 200 every year) tell us that "schools do not diagnose or help and support dyslexics children" with or without a statement.
  - Many parents are distressed by this position and turn the third sector for information, advice and guidance.
  - Statements of SEN are rarely given for dyslexic children, also school seem reluctant to support parents in requesting statutory assessment.
  - Often the only practice is that the learning support is given in the room by a classroom assistant on a table set aside from the class.
  - Every child a reader is not given priority in schools.
  - The "endless debate" about funding or lack of it continues.
- 2. The evidence base for Every Child a Reader and Making Good progress:
  - We would like to see LAA plan and Children plan include Every Child a Reader.
- 3. The definition of dyslexia:
  - The definition that we now use is the one given in the Rose report 2009.

- 4. The evidence base for diagnosing dyslexia and teaching dyslexic children to read:
  - Teachers frequently fail to diagnose the SpLD condition wanting to call in the specialists of which there are insufficient. They are not confident to complete the task.
  - After diagnosis the next thing parents ask is "What do we do now?" all the parents need advice, support and resources.

October 2009

# Memorandum submitted by Yvonne Meyer (LI 34)

As a Committee member of the Australian National Inquiry into the Teaching of Literacy (NITL, 2005), I have been following the work of the Commons Science and Technology Committee Evidence Check: Literacy Interventions with great interest.

I was very surprised to hear Ms Carole Willis' respond that she was unfamiliar with research regarding the failure of Reading Recovery to adequately improve reading outcomes for struggling students authored by Professor Kevin Wheldall et al. Professor Wheldall is an internationally recognised expert on Reading Recovery having worked closely with Dame Marie Clay for a long period of time. His critiques of the Reading Recovery programme date back many years and include a paper commissioned by the (Australian) New South Wales Department of Education.

Professor Wheldall's submission to our National Inquiry into the Teaching of Literacy was given careful consideration by the Committee and heavily influenced the content of our final report.

I thought it would be of benefit to your Inquiry to have access to this and other papers on Reading Recovery. Please find following the links to Professor's Wheldall's NITL submission and his other papers on Reading Recovery. Since the Rose Report and the DCSF have accepted that literacy programmes should be informed by Tunmer and Gough's Simple View of Reading, I have also included links to the work done by Tunmer et al on Reading Recovery for your information.

Annex

COMMONWEALTH OF AUSTRALIA, DEPARTMENT OF EDUCATION, SCIENCE AND TRAINING

National Inquiry into the Teaching of Literacy, Submission 235, Professor Kevin Wheldall, NSW

This submission focuses on Reading Recovery, outlining the weaknesses of Reading Recovery and suggesting how it could be improved. The submission says that although in the past Reading Recovery was ground breaking, it has since failed to adapt and change in the light of new knowledge. The submission provides a letter (titled Evidence-Based Research on Reading Recovery) that was sent by a group of scientists from the US and New Zealand to members of the US Congress. Professor Wheldall is Director of Macquarie University Special Education Centre (MUSEC) and is also the Director of MULTILIT.

http://www.dest.gov.au/nitl/submissions/221-240.htm

Evaluating the Effectiveness of Reading Recovery: a critique

Authors: Yola Center; Kevin Wheldall; Louella Freeman Special Education Centre, Macquarie University, Australia

DOI: 10.1080/0144341920120309

Published in: Educational Psychology, Volume 12, Issue 3 and 4 1992, pages 263—274.

This paper attempts to examine critically evaluation studies concerned with the implementation of Reading Recovery, an intensive individualised early intervention programme, by focusing on teacher, child and systemic change. Some conceptual and methodological shortcomings which have characterised many evaluations to date are discussed, together with ways in which these weaknesses could be redressed in future studies.

http://www.informaworld.com/smpp/content  $\sim$  db = all  $\sim$  content = a757629726

International Journal of Disability, Reading Recovery 20 Years Down the Track: Looking forward, looking back Reynolds, Meree and Wheldall, Kevin.

International Journal of Disability, Development and Education, 54:2, 199-223. DOI: 10.1080/ 10349120701330503.

Reading Recovery is an intensive literacy programme designed for young students who have been identified as being at-risk of reading failure after 1 year of schooling. The intervention was developed and trialled in New Zealand over 20 years ago and is now implemented in a number of education systems. The focus of this article is on recent research into the operationalisation of the programme with an overview of what it has done well and what it has not done so well. Reading Recovery has been very successful in bringing

about change on the political and teacher training levels. In terms of efficacy in remediating literacy difficulties, however, the findings are more equivocal. What we have learned from Reading Recovery may assist in the implementation of new interventions based on more contemporary research.

URL: http://dx.doi.org/10.1080/10349120701330503

The Devil is in the Detail Regarding the Efficacy of Reading Recovery: A rejoinder to Schwartz, Hobsbaum, Briggs, and Scull, Authors: Reynolds, Meree; Wheldall, Kevin; Madelaine, Alison. Source: International Journal of Disability, Development and Education, Volume 56, Number 1, March 2009, pp. 17-35(19).

This rejoinder provides comment on issues raised by Schwartz, Hobsbaum, Briggs and Scull (2009) in their article about evidence-based practice and Reading Recovery (RR), written in response to Reynolds and Wheldall (2007). Particular attention is paid to the processes and findings of the What Works Clearinghouse evaluation of RR. The suggestion that this evaluation is flawed casts doubt about some of its findings. The authors maintain their earlier stance that RR is effective for many students but do not accept that there is evidence that initial gains are sustained through the primary grades, that RR is an efficient tier two intervention in a response to intervention approach and that significant cost benefits have been demonstrated in education systems. It is concluded that research into alternative interventions that could be implemented at lower cost is warranted.

The Reading Recovery Approach To Preventive Early Intervention: As Good as it Gets? William E Tunmer, James W Chapman, Department of Learning and Teaching, Massey University, August 2001.

Reading Recovery is a widely used preventive early intervention program designed for young children who have failed to respond adequately to formal reading instruction after 12 months of schooling. The focus of this article is on the theoretical underpinnings of the program, the assessment battery used in the program, the specific procedures and instructional strategies emphasized in the program, and the manner of program delivery. Following an examination of Reading Recovery in relation to contemporary theory and research on children's reading problems, fundamental changes to the program are recommended.

www.nrrf.org/67\_surveys\_exp\_research.htm

Chapman, JW, Tunmer, WE, and Prochnow, JE (2001). *Does success in the Reading Recovery program depend on developing proficiency in phonological processing skills*? A longitudinal study in a whole language instructional context. Scientific Studies in Reading, 5, 141–176.

Grossen, B, Coulter, G, Ruggles, B (1997) Reading Recovery: An Evaluation of Benefits and Costs (The Claims Versus the Facts): An Executive Summary. http://darkwing.uoregon.edu/%7ebgrossen/rr.htm

Iverson, S, and Tunmer, W, (1993). *Phonological processing skills and the Reading Recovery program*. Journal of Educational Psychology, 85(1), 112–126.

Chapman, JW, Tunmer, WE, and Prochnow, JE (1999). Success in Reading Recovery depends on the development of phonological processing skill. Revised Research Report for Phase Three of Contract ER35/199/5. New Zealand, Ministry of Education.

Tunmer, WE and Chapman, JW (2003) Reading Recovery: Distinguishing myth from reality. International Dyslexia Association 54th Annual Conference Commemorative Booklet. Also at http://www.wrightslaw.com/info/

http://www.knowledgenetwork.ca/literacy/resources/literature/myth\_from\_re.pdf

November 2009

## Memorandum submitted by Elmhurst Primary School (LI 36)

INTERVENTION FOR CHILDREN WITH LITERACY DIFFICULTIES

I have just read a memorandum submitted by the Every Child a Chance Trust to the Science and Technology Committee concerning Reading Recovery in Read Write Inc. schools. The memorandum states that:

5.15 The experience of *Every Child a Reader* in the years 2005–09 has been that schools that make good use of synthetic phonics—for example, those that have been using Ruth Miskin Literacy or Phonographix systematically with whole classes for a number of years—also sign up readily for Reading Recovery. They report that while their synthetic phonics programmes work very well for the majority of children, a small minority remain non-readers. As an example, a school in Newham held up as a model of effective implementation of the Ruth Miskin approach (including one-to-one support from a teaching assistant for children who are experiencing difficulties) had in 2008 11% of children achieving below the nationally expected Level 2 or above in Reading at the end of Key Stage 1. In a similar school in Hackney, providing Reading Recovery for its very lowest achievers in addition to effective phonics teaching for all children, only 5% failed to achieve Level 2 +.

I am the headteacher of a Newham Primary School with approximately 940 pupils. We have a turnover of 21% of children each year and 22% are eligible for free school meals. However, all our children learn to read using Read Write Inc. including children with special needs. This is because every teacher and assistant knows how to teach reading. We make it our priority.

No child has been identified as having dyslexia since we adopted the programme in 2004. Our Special Needs Coordinator has used the diagnostic tests supplied by the local authority on several occasions and has concluded that children who have had experience of consistent Read Write Inc. teaching through the school always score highly in these tests, which leads us to the conclusion that this approach to teaching reading meets the needs of children with dyslexia type difficulties.

Our "at risk" children are identified in Reception, or when they enter the school in later years, and receive quick and effective one-to-one tutoring. Some are tutored for one week, others, with significant needs for longer. Importantly, they receive the same teaching as they receive in their morning reading group.

We refused the offer of a Reading Recovery teacher in 2008 for two main reasons:

- 1. Reading Recovery confounds decoding and comprehension (as advised against in the Rose Report)
- 2. Every teacher should use the best methods and be consistent in their approach; to put different knowledge in the hands of one person is short-sighted, even when using an effective programme.

Do please visit our school. You will see how every child learns to read.

If a Read Write Inc. school is using Reading Recovery, it can only be because they have not adopted the RWI one-to-one tutoring properly.

Shahed Ahmed Head teacher Elmhurst Primary School November 2009

# Memorandum from Government on the [former] Innovation, Universities, Science and Skills Select Committee Evidence Check

These are the Government's responses to the Committee's evidence check questions regarding Dyslexia.

# **DYSLEXIA**

This response was provided by the Department for Children, Schools and Families.

O1 What is the Government's policy on the diagnosis and management of dyslexia?

On 22 June 2009, the Secretary of State for Children, School and Families welcomed the publication of Sir Jim Rose's report entitled Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties. The report makes clear that literacy difficulties and dyslexia are best identified and addressed at an early stage to give children having these difficulties the best chance of staying on the path to success.

To identify children as early as possible, the report says schools need to look carefully at those making poor progress compared to their peers, by making effective use of progress measures. This should entail classroom teachers noticing individual differences and adjusting their teaching. They should continue monitoring the progress of children causing concern, and then, if necessary, arranging more intensive interventions to advance their progress. If a child continues to make little progress, more specialist advice should then be obtained. This is all set out in greater, very practical detail, in Chapter 2 of Sir Jim's report

(http://publications.dcsf.gov.uk/default.aspx?PageFunction = productdetails&PageMode = publications &ProductId = DCSF-00659-2009)

The Secretary of State has endorsed all the recommendations in Sir Jim Rose's report and made available £10 million to support their implementation. This will include funding for around 4,000 teachers to train in appropriately accredited specialist dyslexia teaching over this financial year and next.

Q2 What evidence is used to support this policy? What methods have been considered to help improve literacy standards of dyslexic children and on what evidential basis has one method been favoured over another?

Essentially Jim Rose considered three sources of evidence as part of developing his dyslexia recommendations which we are now guided by:

- (i) responses to a "call for evidence" which resulted in 850 replies including teachers and parents expressing a wide range of views on the quality of intervention strategies;
- (ii) feedback from visits to schools provided a valuable further source of evidence. In total, 17 primary and secondary schools were visited by the Review Team. Focus groups were undertaken in eight of these schools with pupils who have dyslexia (and related difficulties) and with their parents. The

main purpose of the discussions was for children and their parents to describe their experiences of schools responding to their needs. These visits also included discussions with key staff, including specialist teachers, Special Educational Needs Coordinators (SENCOs) and head teachers, who provided information about organisational structures, early identification and screening.

assessment and monitoring of progress and types of interventions to address dyslexia; and

(iii) published Research evidence including:

- a summary of published research on the impact of specialist dyslexia teaching and Reading Recovery on progression and outcomes for children with dyslexia, prepared by Dr Chris Singleton of Hull University;
- Dr Singleton's evaluations of the No to Failure Project which monitored the progress made by children identified as being at risk of dyslexia/specific learning difficulties who had received specialist dyslexia teaching; and
- The University of Durham's evaluation of the first two years of Dyslexia Action's *Partnership* for Literacy pilots, which provide a body of specialist knowledge in some school in order that they will be better placed to meet the needs of those children struggling in the bottom 10% of attainment, including those at risk of dyslexia.

Sir Jim Rose considered the weight and robustness of this evidence with the support of his Expert Advisory Group.

A comprehensive list of all evidence considered by Sir Jim Rose as part of his dyslexia review can be found in the Bibliography section of his dyslexia report

(http://publications.dcsf.gov.uk/default.aspx?PageFunction = productdetails&PageMode = publications&ProductId = DCSF-00659-2009).

Department for Children, Schools and Families

September 2009