

Fine tuning the National Literacy Strategy to ensure continuing progress in improving standards of reading in the UK: Some suggestions for change.

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Running head: Fine tuning the NLS

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## Abstract

In this paper, I endorse the approach to teaching phonics set out in recent documents (e.g. Progression in Phonics) that extend and supersede the approach set out earlier in the National Literacy Strategy (NLS) Framework for Teaching. I propose minor, evidence-driven amendments to this approach.

I then question the assumption that failure to achieve continuing steady improvement in reading standards by the end of Key Stage 2 is due solely, or largely, to problems in word recognition that stem from inadequate phonics teaching. I suggest that SATs tests do not provide the kind of data that would permit this interpretation, as they inevitably confound word recognition with text comprehension.

The same confound is evident in the ‘searchlights’ model of reading presented to teachers. I elucidate its consequences with respect to ideology and teacher knowledge about reading, and suggest a simpler model that avoids confounding issues. The simpler model also redirects attention away from considering reading comprehension in isolation from language comprehension. I argue that a single language comprehension system underlies oral and written comprehension.

I then consider the treatment of reading comprehension in the NLS Framework for Teaching, showing how much of it could better be described as teaching literary criticism rather than facilitating reading comprehension. I describe some of the processes shown by research studies to be important to comprehension, and how little these are reflected in the NLS Framework for Teaching. I suggest some directions in which we need to move if the teaching of comprehension is to be improved.

In conclusion, I outline areas in which further research is needed if continuing improvements in teaching and learning are to be achieved. This includes collecting the kinds of data needed to ensure a correct analysis of the causes of the recent decline in progress towards better reading standards.

Suggestions for minor changes to word level work.

I would like to start by expressing firm support for the approach to phonics teaching now taken in the NLS. I have just a few small suggestions for refinements to the Progression in Phonic Skills and Knowledge. Under this progression, children are not taught any vowel letters until Step 4. I think it would be better if at least one vowel letter were taught in Step 2, so that children can immediately start putting to use their segmentation and blending skills and letter-sound knowledge in reading and writing (cf. Hatcher, Hulme & Ellis, 1994). Every word needs a vowel: under the present Progression, children cannot use what they have learned in order to read and write until Step 4.

I regret the recommendation in the paper circulated by the DfES that irregular high frequency words “be taught in the context of texts during shared and guided reading” rather than during word level work. Stuart, Masterson & Dixon (2000) showed that words are not readily learned from shared reading. Their second experiment compared learning from shared reading with learning from flashcard presentation. Shared reading sessions took twice as long as flashcard sessions, yet children learned over twice as many words in the flashcard condition. Children taught on flashcards did better than those taught through shared reading whether they were then tested on isolated words, or on reading words embedded in sentences, or were asked to match words to pictures. These results strongly support the view that irregular sight vocabulary is best taught as isolated words rather than in text.

I would also like to caution against a total reliance on teaching phonic word attack skills to the neglect of developing children’s sight vocabulary. There is a substantial body of theory based in empirical evidence that suggests that printed word recognition in skilled readers is largely achieved through accessing previously stored orthographic representations, i.e. through having access to a store of ‘sight vocabulary’ (see, for example, Baron & Strawson, 1976; Coltheart, 1978; Henderson, 1982). As Ellis (1993, p.26) states: “Becoming familiar with new written words involves creating new recognition units for them in the visual input lexicon and forming associative connections between those units and the representations of meanings and pronunciations. This is an important part of learning to read”. There is also a large body of empirical evidence showing that most children who are diagnosed as dyslexic

have phonological processing problems (see, for example, Castles & Coltheart, 1993; Manis, Seidenberg, Doi, McBride-Chang & Petersen, 1996; Stanovich, Siegel & Gottardo, 1997). The diagnostic criteria for developmental phonological dyslexia include better reading of familiar real words, regardless of their regularity, than of unfamiliar words or nonwords. In other words, developmental phonological dyslexics find it easier to acquire sight vocabulary than they do to learn grapheme-phoneme correspondences and how to use these in reading. Whilst it is still usually the case that remedial teaching for these children is directed towards improving their phonic knowledge and skills, it is also important to remember that they have a relative strength in sight vocabulary development which should be built on.

I also question the assertion in the paper circulated by the DfES that blending phonemes is harder than segmenting phonemes. Two recent studies present data bearing on this issue. Stainthorp & Hughes (1999) showed that young early readers reached ceiling on phoneme blending tasks well before there was any sign of a complete command of phoneme segmentation. Stuart, Dodds, Doctor, & Olisa (2002) tested some 400 Year R children on measures including phoneme segmentation and blending before and after a one-term phonics intervention. When phoneme blending ability was tested by the tester 'talking like a robot' and asking the child to select from a page of pictured objects the one that the robot was naming, 26% of the children were at ceiling before intervention, and 71% were at ceiling after intervention. However, when children were tested in the same way but a different response was required, with children asked to pronounce the word that the robot was trying to say, only 7% were at ceiling before intervention, and 39% after intervention. On the phoneme segmentation test, only 5% were at ceiling on pretest, with 23% at ceiling after intervention. On these figures, blending is easier than segmentation especially if the child is not required to pronounce the response. When pronunciation is required, blending becomes almost as difficult as segmenting. We also looked at our results in terms of the percent of children improving on their own pretest performance following intervention. 69% of children improved in phoneme blending with a picture point response, compared to 59% who improved in phoneme blending with a pronunciation response, and 63% who improved on phoneme segmentation. Again, in some circumstances, phoneme blending is easier developed than phoneme segmentation, even for children from some of the most deprived of backgrounds.

My final point concerns the assertion in the paper circulated by the DfES that children are still reaching Years 3 and 4 with insecure phonic knowledge and segmenting/blending skill. This assertion seems to derive from the 2002 Ofsted report on the National Literacy Strategy and it would be interesting to know what kinds of evidence, beyond classroom observations, informed Ofsted's conclusion. Be that as it may, there is probably a small minority of children with serious phonological processing problems who might be expected to have unusual difficulty in acquiring phonic knowledge and segmenting and blending skills, and possibly a small minority of children with serious memory problems (perhaps associated with general learning difficulties) who might be expected to have unusual difficulty in the paired associate learning required to learn letter-sounds. Beyond these two groups, no child should reach year 3 in an insecure state. It is possible that, in addition to improved teacher and LSA training to deliver structured phonics teaching successfully, more attention to the individual learning needs of each child might help. Stuart et al (2002) set out a rank order of difficulty of phonological, letter-sound, reading and writing tasks, based on their work with Year R children in 22 schools. This provides a way of quickly assessing the level of understanding and knowledge reached by a child in each area, and signposts what is next most likely to be easily learned by that child.

Analysis of the causes of the slow down in improvements to reading standards.

The DfES paper identified two kinds of issues that might impact upon the effectiveness of phonics teaching in the NLS, three to do with the design of the NLS (pace, the 'searchlights' model, synthetic vs. analytic phonics), and three to do with its implementation (clarity of message, ideology / teacher knowledge, the delivery chain). The broad conclusion of the paper is that implementation issues are more problematic than design issues, although the inevitable close interdependence of design and implementation is recognised. An explicit assumption in the paper is that more effective phonics teaching will lead to better attainments in reading and writing at Key Stages 1 and 2. It is true that phonic teaching improves printed word recognition skills (Blachman, Ball, Black & Tangel, 1994; McGuinness, McGuinness & Donohue, 1995; Stuart, 1999). The underlying cause of recent slowing of improvements in reading as measured by SATs is thus identified as a problem at word level.

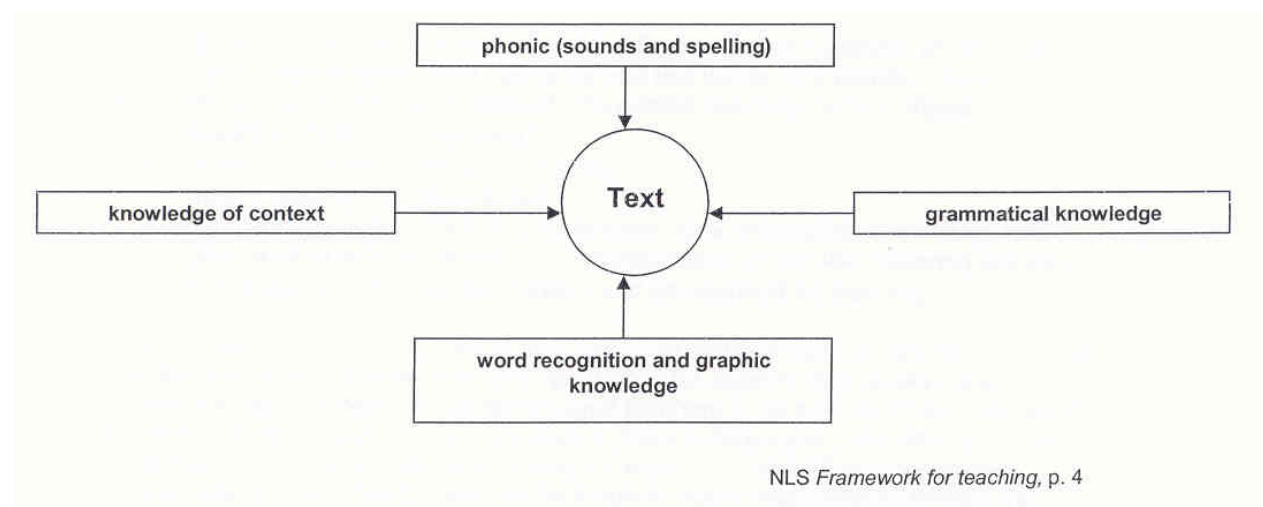
However, I cannot see that we have any evidence that the slowing of improvements in SATs results is caused by problems at the level of word recognition. SATs tests completely confound measurement of word recognition skills and measurement of text comprehension (and also include affective and critical response to texts and their layout). When children do badly in the SATs tests, we simply do not know whether this is because they cannot read the words adequately, or whether it is because, despite age appropriate word reading, they cannot make sufficient sense of what they read.

### Confounding word recognition and text comprehension.

The confounding of two different dimensions of reading is also evident in the ‘searchlights’ model of reading which is presented in the NLS Framework for Teaching. This matters, as it impacts upon two implementation issues - clarity of message and ideology/teacher knowledge. I shall try to demonstrate the confound, and show how the searchlights model actually deals only with word recognition, leaving teachers with no model of the processes underlying text comprehension.

### The searchlights model.

The NLS adopted a ‘model’ of reading and writing that was central to the National Curriculum: the Searchlights model.



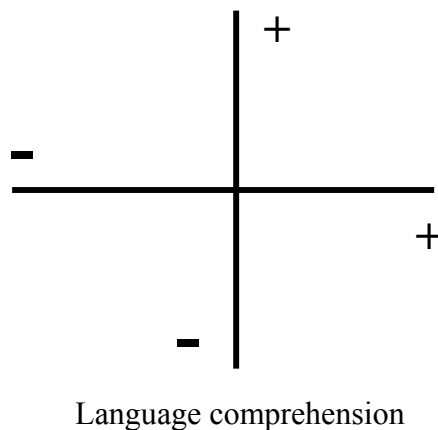
In this ‘model’ (which I will argue is actually only a diagram, in that it does not illustrate the detailed functioning of the processes labelled or the ways in which they interact) four sources of information are shown impacting upon a text. For the sake of simplicity, I will consider the ‘model’ only in relation to reading. Children (and skilled readers?) are assumed to use fast automatic phonic decoding, knowledge of printed words and morphemes, grammatical knowledge and context in order to derive the meaning of a text. The first two searchlights, fast automatic phonic decoding, and knowledge of printed words and morphemes, refer to processes involved in printed word recognition. ‘Fast automatic phonic decoding’ refers to sublexical processing, to rule-based mappings between graphemes and phonemes (if we adopt a dual-route cascade model of printed word recognition; see Coltheart, Rastle, Perry, Langdon & Ziegler, 2001) or to connections between orthographic and phonological segments (if we adopt a connectionist model; see Plaut, McClelland, Seidenberg & Patterson, 1996). ‘Knowledge of printed words and morphemes’ refers to lexical processing, to the development of a store of orthographic representations of words linked to their meanings and hence to their pronunciations (if we adopt a dual route cascade model; it is not clear whether it is possible to include knowledge of words and morphemes within a connectionist account, as words and morphemes are not represented). At least two studies (Dixon, Stuart & Masterson, 2001; Stuart et al, 2000) have presented convincing evidence that phonic knowledge and phoneme segmentation and blending skills underlie the development of all printed word recognition, in both sublexical and lexical routes. Therefore, good phonics teaching should lead to good word recognition skills, which includes both of the first two searchlights.

Good word recognition skills are necessary but not sufficient for text comprehension. In the searchlights model, the only two searchlights that might relate directly to processes uniquely involved in text comprehension are grammatical knowledge and context. Yet they are portrayed as *equivalent* to the word recognition searchlights of phonic decoding, and knowledge of words and morphemes. Their inclusion as providers of information useful to word recognition is perhaps explained by the origins of the searchlights model in Reading Recovery (Clay, 1985; 1987): children struggling to begin to learn to read are encouraged to ‘predict’ upcoming words from semantic and syntactic context. I think the assumption that the observed strategies of children failing to develop fluent and automatic word recognition processes are a

suitable basis upon which to build a model of the processes normally involved in word recognition is highly questionable.

An alternative to the searchlights model.

An alternative formulation that I have found immensely useful with teachers is a very simple diagram that shows clearly the two distinct but necessary dimensions of reading, as illustrated below. I owe this diagram to a talk given by Kate Nation at a meeting of the Forum for Research in Literacy and Language in London; it also clearly derives from the ‘simple’ view of reading put forward by Gough, Hoover & Peterson (1996). I do not accept Brooks’s (2003) view that the searchlights model is ‘not in conflict’ with the alternative diagram presented here, and will later attempt to present my reasons for rejecting Brooks’s arguments.



Consequences of confounding these two dimensions.

These two dimensions, printed word recognition and language comprehension, are confounded in the ‘searchlights’ model. Fast automatic phonic decoding and knowledge of printed words and morphemes relate to the dimension of word recognition. Grammatical knowledge and prediction from context relate to the dimension of language comprehension. This is a serious confound, for three reasons, all of which are connected to issues of ideology and teacher knowledge. First, it reinforces the opinion, still strongly held by many teachers, that phonic decoding (sublexical processing) and knowledge of printed words (lexical processing) are *optional* searchlights to be used in the quest for text meaning. From models of skilled reading, we know this is not the case. They are the *essential* processes by which



printed word recognition is achieved. Second, the confound encourages teachers to adopt the view that good grammatical knowledge and ability to predict from context are all that is required for text comprehension: we also know from research conducted over the past thirty years that text comprehension is much more complex, and we have identified many of the processes that are involved in text comprehension (see later discussion). Third, it encourages the view that ‘reading comprehension’ is an entity in itself, different and separated from listening comprehension.

#### Advantages of avoiding confounding the issue.

Presenting reading as involving two separate and clearly labelled dimensions, word recognition and language comprehension, avoids these confounds and permits an informed consideration of the processes involved in developing each dimension. The searchlights model, on the other hand, actively encourages teachers to view all aspects of reading as involving the single dimension of ‘getting meaning from text’. Whilst the goal of all reading must be to get meaning from text, this single goal does not necessarily imply that there is a one-dimensional underlying process by which the goal is achieved. Brooks (2003) has stated that ‘a fully explained and understood searchlights model can function as an expansion of the word recognition dimension’ of the alternative formulation I have presented here. There is no need for this, as there are already at least two competing classes of models of the processes involved in printed word recognition, based in years of research which has yielded sound empirical findings about printed word recognition that any explanatory model must accommodate. Stuart (2002) provides a readable introduction to these issues and to the similarities and differences between the two competing classes of model.

The two-dimensional diagram I have presented encourages teachers to consider reading comprehension as part of a single language comprehension system. There is no evidence that human beings have two distinct language comprehension systems, one dedicated to understanding oral language (or ‘listening comprehension’) and the other dedicated to understanding written language (or ‘reading comprehension’). We have one underlying language comprehension system, that continues to develop in some ways throughout life and that is certainly developing in all kinds of ways during the years of primary education.

When children first come to school, they can get into their language comprehension system from the spoken word: most children understand much if not all of what they hear in the way of speech directly addressed to them (in their own language).

Learning to read therefore involves learning how to get into the language comprehension system from the written as well as the spoken word, *and continuing to develop the language comprehension system*. This means that at first the dimension that cries out to be developed is the dimension of word recognition: until children can recognise the words on the page, they cannot possibly access their existing language comprehension system from print (although they can invent a story of their own from the pictures, and they can memorise the speech they hear adults read to them to accompany each picture – for example, aged just two, my son could repeat from memory verbatim the entire text of Benjamin Bunny – but neither of these prodigious feats equates to accessing their language comprehension system from the written word, which is one way of defining reading).

Since, as far as I can see, we simply do not know at the moment which of the two dimensions some children are currently failing to develop adequately, it seems to me that (a) we need as a matter of urgency to find this out and (b) we neglect the development of language comprehension at our peril.

#### Reading comprehension in the NLS.

I shall now turn to “reading comprehension” as set out in the NLS Framework for Teaching, and attempt to relate this to research evidence about the processes that are involved in reading (language) comprehension.

As I said earlier, we do not have two separate language comprehension systems, one for spoken and one for written language, but a single system that we have to learn to access from both oral and written input. The early and continuing emphasis in the NLS on identifying differences between ‘book language’ and oral language appears to assume that oral language development is pretty well complete, and that all children have developed oral language to an age appropriate level. Learning the nuances of difference between oral and written presentation is then all that is needed to facilitate comprehension of written text. But these are questionable assumptions. It is clearly not the case that oral language development is anywhere near complete during the

early primary years. It is also certainly not the case for many children that oral language development is at an age appropriate level (Stuart, Dockrell & King, in press; Locke, Ginsborg & Peers, 2002). Therefore there should be much more emphasis, especially but not exclusively in Key Stage 1, on language development *per se*. Many children cannot *produce* a coherent oral narrative: do we know whether such children can *comprehend* oral narrative? Yet we expect them to comprehend written narrative.

### Reading comprehension or literary criticism?

At Key Stage 2, much of the NLS Fiction text level work that is labelled “Reading Comprehension” might better be labelled “Literary Criticism”. For example:

Year 4 term 2, children should be taught “to understand how the use of ... descriptive language can e.g. create moods, arouse expectations, build tension....”

Year 4 term 3, children should be taught “to describe how a poet does or does not use rhyme...”

Year 5 Term 1, children should be taught “to analyse and compare poetic style.”

Year 6 Term 2, children should be taught “to analyse the success of texts and writers in evoking particular responses in the reader...”

These are ways in which children can *demonstrate* comprehension and meta-level understanding of use of language and of its formal properties; they are not ways to *teach* comprehension.

### Failure to take proper account of research evidence.

More seriously, the NLS fails to make explicit use of research evidence accumulated over the past 30 years that has demonstrated some of the causes of failure to comprehend in children who have age appropriate word recognition skills (i.e. whose failure to comprehend cannot be due to word level failures which might be prevented by good early phonics teaching). Among the causes of comprehension failure so far identified are:

- Poor knowledge of story structure
- Poor domain (background) knowledge and/or failure to link this to incoming information
- Problems with inference making

- Problems with establishing causal and cohesive links
- Problems in integrating information in text
- Problems with working memory

Each of these is considered in turn below.

*Poor knowledge of story structure*

In the NLS work on comprehending fiction, there is lots of work on narrative (story) structure. However, to understand why this work is there and to teach it well, teachers need to understand the concept of story grammar. I think this work would also benefit from being removed from the “literary criticism” context in which it is embedded: children do not need to work on story openings and endings so that they can recognise or write good ones themselves, but so that they acquire the concept of the beginning and its scene setting function, and the end and its resolving function. This is immediately apparent from discussion of story grammar, in which a scene is set (the where and when), characters introduced and developed (the who), goals identified (the what), motives and intentions identified (the why), actions towards the goal are described (the how), problems encountered and how they are overcome are presented, and a resolution reached (the outcome). This work – on the when, where, who, what, why, and how - is scattered throughout both Key Stages but nowhere is it presented as a whole to the teacher with its purpose and importance clarified.

There is also explicit reference to chronology in narrative and to ways in which the passage of time can be represented. This is presumably to be explored across a range of the different genres explicitly identified (Sci-Fi, adventure, myths and legends, texts from different cultures, etc). Children are also to be taught the formal structures likely to be encountered in play scripts (stage directions, ways of indicating dialogue) and poetry (rhyme patterns, language use, etc). There is again no explanation of how knowledge of these kinds of structure affects comprehension –if indeed it does.

*Poor domain (background) knowledge and/or failure to link this to incoming information*

There is implicit acknowledgement of the importance of activating prior knowledge and linking this to incoming new knowledge, in the requirement in Key Stage 1 that children should relate story settings and incidents to their own experience. But domain knowledge is likely to be or to become more important in reading non-fiction. Successful teaching techniques for improving domain knowledge include showing films or videos to introduce new topics. Successful techniques for encouraging children to activate and use their prior knowledge within a domain include pre-reading discussion of the topic to be studied, so that children are made aware of what they already know in that area. This can be followed by discussion of what questions remain unanswered, so that children select texts and read with a question or questions in mind. These issues are explicitly mentioned with regard to non-fiction only in Year 2 Term 3, Year 4 Term 2. They should permeate the whole curriculum.

*Problems with inference making*

There is no reference at all in the NLS Framework for Teaching to the importance of inference in comprehension. This is alarming, given that research has shown that less skilled comprehenders have particular problems with making necessary inferences (Oakhill, 1984; Oakhill & Yuill, 1986; Oakhill, Yuill & Parkin, 1986). Moreover, it has also been shown that less skilled comprehenders' ability to make inferences can be improved by training that helps children to activate their prior knowledge and shows them how to draw on this to answer inferential questions (Hansen & Pearson, 1983; Yuill & Oakhill, 1988). Some kinds of inferences do depend on bringing prior knowledge to bear on the text. Jane Oakhill gives the following simple example:

“Jane was invited to Billy’s birthday party.  
She wondered if he would like a kite.  
She shook her moneybox.  
It made no sound!”

In order to make sense of this simple sequence, children must go beyond the literal text and fill in the gaps from their own prior knowledge. If you don’t know that it is usual to buy a present for the birthday boy, you won’t understand why Jane is wondering whether Billy would like a kite, you won’t *infer* that she is planning to buy him a present and that this present should be selected please him. If you don’t know

that kites have to be bought and paid for, you won't understand why Jane is shaking her moneybox. If you don't know that money in a moneybox rattles when it is shaken, you won't understand the implications of the lack of sound from Jane's moneybox. If you were asked questions probing these gaps in the literal text, you would answer them either incorrectly or not at all.

It is important that teachers understand that inference from real world experience can be essential to understanding even the simplest shortest narrative text. Yet, the NLS Framework for Teaching makes no explicit mention of the development of inference skills.

*Problems with establishing causal and cohesive links*

Garnham, Oakhill & Johnson-Laird (1982) showed that less-skilled comprehenders with adequate word recognition abilities have difficulty in taking advantage of the cohesive links in texts that are created by use of anaphoric devices such as pronouns. For example, in the phrase "It was ready", it is impossible to know what it is that was ready. The pronoun 'it' in this phrase can only be interpreted with reference to information in another part of the text. In this case, 'it' has to be linked back to the sentence that preceded it, "Bill checked the cake in the oven". 'It' then clearly refers to 'the cake in the oven'. Our knowledge of gender and syntax allow us to know that 'it' doesn't refer back to 'Bill' - Bill is male and therefore would be referred to by the pronoun 'he'. Less skilled comprehenders' difficulty in interpreting cohesive devices such as anaphora means that they cannot establish even local links among the sentences in a text. This is not something that can be addressed solely by sentence level work, yet it is not mentioned at all in the NLS text level work.

*Problems in integrating information in text*

Less skilled comprehenders also have problems in integrating ideas presented in different parts of a text. This has been shown by Oakhill and her colleagues by asking children to detect anomalies in texts. The question asked is, "Does this story make sense?". The stories to be read are short passages that present inconsistent information in different parts of the text (e.g. moles cannot see very well; moles have very good eyesight). The less skilled comprehenders were much worse at recognising inconsistencies, suggesting that they do not automatically integrate incoming

information (nor do they monitor their own comprehension). Again, there is nothing in the NLS framework that overtly addresses this issue.

### *Problems with working memory*

The identification of working memory problems in some less skilled comprehenders is important in itself, since this is also likely to interfere with the ability to link ideas from different parts of the text (Yuill, Oakhill & Parkin, 1989), which is essential to obtaining an overview of the text, and therefore to main idea identification. But it is also important as an example of the kinds of cognitive processing difficulties that can exist within the minds of some children, and which prevent them from achieving an age-appropriate understanding of texts. Children who score poorly on tasks designed to assess verbal intelligence are also likely to have limits set on their ability to understand texts: if your listening comprehension is poor, then so will be your written comprehension. No account seems to have been taken of this unpalatable fact in setting attainment targets, or in designing a curriculum that is governed entirely by chronological age.

### How could reading comprehension be better presented and taught?

At this point we might be wise to look westward, to the report produced by the National Reading Panel (NRP) in the US in 2000. This gives a brief overview of the path taken by research into reading comprehension since the late 1970s, as well as classifying and evaluating research studies. In the early days, studies investigated the effects of training children in the use of single strategies that were deemed likely to improve comprehension. Then combinations of strategies were trained. Finally, the implications for teacher training and teaching began to be examined.

To these ends, pupils (mostly from grades 3 through 6) have been trained to monitor their own comprehension, to make graphic aids to improve comprehension and memory, to make mental images, to acquire and use background (prior) knowledge, to generate and answer questions, to summarise, and to develop their knowledge of story structure. These activities have sometimes been conducted in shared learning situations in small groups, and have also sometimes been conducted across the curriculum. Effectiveness of training has usually been demonstrated on immediate post-tests designed to evaluate just what has been taught. There are fewer studies that

have also been able to show improvements on standardised tests of reading comprehension. Most of the strategies trained are processes already shown to be lacking in less skilled comprehenders.

#### Implications for teacher education.

Despite the availability of this plethora of research, a recent observational study of ten classrooms (Pressley, Wharton-McDonald, Mistretta & Echeverria, 1996) found that teachers, whilst consistently identifying comprehension as one of their primary goals, were not directly teaching comprehension strategies to their pupils. Instead, they occasionally mentioned strategies, and presented pupils with test questions tapping understandings that would have developed from strategy use. This is likely to be due to the real difficulties encountered in teaching teachers to be successful in improving their pupils' comprehension. Duffy (1993) suggests that major changes in teacher education are required to help teachers become good strategy teachers, and emphasises the importance of taking account of the complexity involved in this kind of teaching, and the need for teachers to make creative adaptations to deal with that complexity. If we accept his views, then simply setting out what pupils 'should be taught' is extremely unlikely to lead to major improvements in children's reading comprehension.

#### Effective teaching methods.

Despite the difficulties inherent in equipping teachers to become successful in inculcating comprehension strategies, Pressley & Wharton-McDonald (1997) identify three methodologies for effective comprehension teaching: reciprocal teaching, direct explanation, and transactional strategies instruction. These are discussed in turn below.

##### *Reciprocal teaching*

Pupils are taught to use four comprehension strategies: predicting, questioning, seeking clarification, and summarising. Instruction takes place in small groups, with each pupil taking a turn to be the teacher. As teacher, they predict likely content from titles and related knowledge, pose questions about the reading and model summarisation. When there is confusion about ideas expressed in the text, they either predict upcoming content or seek clarification. The class teacher scaffolds these activities by giving prompts.



*Direct explanation.*

Teachers begin by explaining strategies to students and modelling these for them. Pupils then have practice in using the strategies in reading that is monitored by the teacher. The teacher provides additional explanation and modelling as needed.

*Transactional strategies instruction.*

This approach stems from the work of Pressley and colleagues in identifying successful implementations of comprehension teaching. The following characteristics of successful programs comprise the basis for transactional strategies instruction. Several strategies are taught, including prediction based on the activation of prior knowledge; question generation; clarification seeking; mental imagery, and summarisation. Teaching is long term over several months. Strategies are directly explained and modelled. Teachers then coach as students practise. Students model strategy use for each other. Appropriate application of relevant strategies is taught. Teachers continued to model strategy use throughout the school day and across the curriculum.

The way forward.

It can be seen from the above that comprehension teaching in the US is more clearly based in research evidence both about the nature of comprehension difficulties and about effective intervention than is perhaps the case in the UK. It would seem that, to further improve reading standards in the UK, several things are needed. We need to collect the necessary data that will allow us to identify the real sources of the recent stall in progress: that is, data on standards of context-free printed word recognition, and data on performance on standardised tests of reading comprehension. We need to provide teachers with a model of reading that does not confound word recognition processes with those involved in comprehension. We need to ensure that all teachers are properly trained to teach phonics quickly and effectively in Key Stage 1. We need to provide teachers with research-based training in reading comprehension, so that they understand the likely causes of failure and know which kinds of strategies it is appropriate to teach to improve different aspects of children's comprehension. We need teachers who are both professional and expert in their understanding and their teaching. Only this can release the necessary creativity needed for teachers to be adaptable and well-informed in their teaching of reading.

## References

- Baron, J. & Strawson, C. (1976). Use of orthographic and word-specific knowledge in reading words aloud. *Journal of Experimental Psychology: Human Perception and Performance*, 2, 386-393.
- Blachman, B.A.; Ball, E.W.; Black, R.S. & Tangel, D.M. (1994). Kindergarten teachers develop phoneme awareness in low-income, inner-city classrooms: does it make a difference? *Reading and Writing: An Interdisciplinary Journal*, 6, 1-18.
- Brooks, G. (2003). Sound sense: the phonics element of the National Literacy Strategy. A report to the Department for Education and Skills.
- Castles, A. & Coltheart, M. (1993). Varieties of developmental dyslexia. *Cognition*, 47, 149-180.
- Clay, M. (1985). *The Early Detection of Reading Difficulties* (3<sup>rd</sup> ed.). Tadworth, Surrey: Heinemann.
- Clay, M. (1987). Implementing reading recovery: Systematic adaptations to an educational innovation. *New Zealand Journal of Educational Studies*, 22, 35-58.
- Coltheart, M. (1978) Lexical access in simple reading tasks. In G.Underwood (Ed.). *Strategies of Information Processing* (pp. 151-216). London: Academic Press.
- Coltheart, M.; Rastle, K.; Perry, C.; Langdon, R. & Ziegler, J. (2001). DRC: A dual route cascade model of visual word recognition and reading aloud. *Psychological Review*, 108, 204-256.
- Duffy, G.G. (1993). Rethinking strategy instruction: Four teachers' development and their low achievers' understandings. *Elementary School Journal*, 93, 231-247.
- Ellis, A.W. (1993). *Reading, Writing and Dyslexia: A Cognitive Analysis* (2<sup>nd</sup> ed.). Hove, Sussex: Lawrence Erlbaum Associates.
- Garnham, A.; Oakhill, J.V. & Johnson-Laird, P.N. (1982). Referential continuity and the coherence of discourse. *Cognition*, 11, 29-46.
- Gough, P.B.; Hoover, W.A. & Peterson, C.L. (1996). Some observations on a simple view of reading. In C. Cornoldi & J. Oakhill (Eds.). *Reading Comprehension Difficulties: Processes and Intervention* (pp. 1-13). Hillsdale, NJ: Erlbaum.
- Hansen, J. & Pearson, P.D. (1983). The effects of inference training and practice on

- young children's reading comprehension. *Reading Research Quarterly*, 16, 391-417.
- Hatcher, P.J.; Hulme, C. & Ellis, A.W. (1994). Ameliorating early reading failure by integrating the teaching of reading and phonological skills: the phonological linkage hypothesis. *Child Development*, 65, 41-45.
- Henderson, L. (1982). *Orthography and Word Recognition in Reading*. London: Academic Press.
- Locke, A.; Ginsborg, J. & Peers, I. (2002). Development and disadvantage: implications for the early years and beyond. *International Journal of Disorders of Communication*, 37, 3-15.
- Manis, F.R.; Seidenberg, M.S.; Doi, L.M.; McBride-Chang, C. & Petersen, A. (1996). On the bases of two subtypes of developmental dyslexia. *Cognition*, 58, 157-195.
- McGuinness, D.; McGuinness, C. & Donohue, J. (1995). Phonological awareness and the alphabetic principle: Evidence for reciprocal causality. *Reading Research Quarterly*, 30, 830-852.
- Oakhill, J. (1984). Inferential and memory skills in children's comprehension of stories. *British Journal of Educational Psychology*, 54, 31-39.
- Oakhill, J. & Yuill, N.M. (1986). Pronoun resolution in skilled and less-skilled comprehenders: Effects of memory load and inferential complexity. *Language and Speech*, 29, 25-37.
- Oakhill, J.V; Yuill, N.M. & Parkin, A.J. (1986). On the nature of the difference between skilled and less-skilled comprehenders. In M.M. Gruneberg, P.E.Morris and R.N. Sykes (Eds.). *Practical aspects of memory: Current research and issues, Vol 2*. Chichester: Wiley.
- Plaut, D.C.; McClelland, J.L.; Seidenberg, M.S. & Patterson, K. (1996). Understanding normal and impaired reading: Computational principles in quasi-regular domains. *Psychological Review*, 103, 56-115.
- Pressley, M.; Wharton-McDonald, R.; Mistretta, J. & Echeverria, M. (1996). The nature of literacy instruction in ten grade 4/5 classrooms in upstate New York.
- Pressley & Wharton-McDonald (1997). Skilled comprehension and its development through instruction. *School Psychology Review*, 26, 448-466.
- Stainthorp, R. & Hughes, D. (1999). *Learning from children who read at an early age*. London: Routledge.

- Stanovich, K.E.; Siegel, L.S. & 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. (2002). Using the dual route cascade model as a framework for considering reading development. In R. Stainthorp & P. Tomlinson (Eds.). *Learning and Teaching Reading*. (pp. 45-60). British Journal of Educational Psychology Monographs, Series 2: Psychological Aspects of Education – Current Trends. Leicester: British Psychological Society.
- Stuart, M.; Masterson, J. & Dixon, M. (2000). Spongelike acquisition of sight vocabulary in beginning readers? *Journal of Research in Reading*, 23, 12-27
- Stuart, M.; Dodds, P.; Doctor, E. & Olisa, J. (2002). Extension of getting ready for reading. *Final report to London Borough of Tower Hamlets*. (Available on <http://www.ioe.ac.uk/phd/llrc> click on 'publications').
- Stuart, M.; Dockrell, J. & King, D. (in press). Language intervention in preschool: Talking time – Evidence for the development of oral language skills in classrooms. In K. Maridaki (Ed.). *Children's Understanding of Mind: Empirical and Theoretical Approaches*.
- Yuill, N.M. & Oakhill, J.V. (1988). Effects of inference awareness training on poor reading comprehension. *Applied Cognitive Psychology*, 2, 33-45.
- Yuill, N.M.; Oakhill, J.V. & Parkin, A.J. (1989). Working memory, comprehension ability and the resolution of text anomaly. *British Journal of Psychology*, 80, 351–361.