

Classroom Research Findings and the Nutshell Programme

Dr. Bonnie Macmillan

Since I wrote my book *Why Schoolchildren Can't Read* (Macmillan, 1992), the results of three important large scale classroom studies – one conducted in Canada, one in England, and one in Scotland – have become available. While these three studies confirm earlier findings as to the efficacy of phonics teaching for beginning reading instruction, each study also provides useful new evidence about exactly which elements of instruction are effective, and which of those are not, when attempting to teach children to read. In light of this research, it is perhaps not surprising that use of the Nutshell reading and spelling programme produces truly impressive results (reported in March issue of LIFE [Australian] newsletter, 1999) since this particular programme actually includes every one of the instructional elements found to work. [Note: The Nutshell Programme is Australian]

The study in Canada was important in helping to overcome one of the main problems inherent in studies which compare different instructional methods. Most of these studies compare the effects of method A with method B or C, but they provide no way of determining exactly what it is about a particular method that produces superior progress. However, the study in Canada which compared the effects of synthetic phonics teaching with the effect of whole language/phonics eclectic method in 20 first grade classrooms, was different. This study was the first of its kind to adopt a time sampling technique in which observers closely monitored, over a period of six months, the amount of time individual pupils spent on ten different activities (Sumbler & Willows. 1996). Interestingly, it was found that out of these ten activities, only two were highly correlated with success in reading and spelling. These two were: 'phonics' (which included all phonics activities involving print, letter-sound correspondences, blending, segmenting, detecting sounds in words all with printed form of the word), and 'letter formation' (which involved talking about the shapes of letters, writing letters and words in context of learning letter-sound relationships). These were the only activities that mattered in terms of subsequent reading and spelling performance.

However, equally important was the finding that six activities made no difference whatsoever to reading and spelling success, and two activities were actually related to worse reading and spelling achievement. The six activities that made no difference were: 'Auditory phonological awareness' (in the absence of print), 'sight word learning' (learning to recognise whole words as units without sounding out), 'reading/grammar' (grammar or punctuation explanations, reading by children that appeared to be real reading usually with the teacher), 'concepts of print' (learning about reading chanting pattern books), 'real writing' (included any attempts to write text), 'letter name learning' (included only the learning of letter names, not sounds).

The two activities that resulted in worse achievement were: 'non-literacy activities' (such as play, drawing, colouring, crafts), and 'oral vocabulary' (language development, story discussions, show and tell, teacher instructions). Beyond the correlational data it was found that at the end of six months, the different emphases the synthetic and eclectic classes gave to each of these various activities added up to produce some startling differences in achievement. The synthetic phonics classes significantly outperformed the eclectic classes on 16 out of 19 reading and spelling measures, and in most cases, effect sizes were large. The results showed that the eclectic classes had not learned how the alphabetic code works and were not able to decode phonemically. The eclectic

classes displayed a one standard deviation discrepancy between reading real words and decoding non-words, pointing clearly to their reliance on sight word memorization.

The most important difference between the two methods of instruction was the amount of time devoted to 'phonics' activities. Over the six-month period, the synthetic classes received six times as much 'phonics' instruction as the eclectic classes (30 hours versus 5 hours). Furthermore, while the phonics classes received only 5 ½ hours of 'letter formation' instruction, this was still more than the eclectic classes received (3 hours, 50 minutes) and this was enough to produce significant differences between the two groups in reading and spelling.

Overall, the results from this study suggest that rather than a particular method per se, it is the differences in time allocation to various activities that really counts. This does not mean that devoting time to certain activities is harmful, but simply that teachers must decide what is most important and at what stage if they are interested in maximizing progress. The primary focus of the Nutshell programme is on the two activities found to matter most in the Sumbler and Willows study during beginning reading instruction: concentrated learning of letter-sound knowledge, in conjunction with learning how to form letters and write simple words. An excellent feature of this programme is that some of the first 'words' to be written are not real words. This, helps to drive the alphabetic principle home (the idea that in order to read, every letter (or letter group) must be translated into a speech sound, proceeding from left to right), and it helps, at the same time, to discourage guessing that may occur with the use of real words. Further, an important key to the success of such a programme is that no time is devoted to activities which are unnecessary.

A second, large scale classroom-based study was conducted recently in England. This study also compared the effects of two methods of beginning reading instruction: a synthetic phonics method (combining phoneme awareness with letter-sound teaching) and a whole language method (based on Holdaways use of Big Books) (Stuart, 1999). Although not a time sampling study, care was taken to ensure that groups being compared were equivalent in terms of both teacher and pupil variables, and in terms of instructional time received. Children were measured on a wide range of abilities before instruction began, after 12 weeks of being taught by the particular method, and again, one year later.

The results of this study confirmed the findings of the Sumbler and Willow study. One year later, the greater allocation of time within the synthetic phonics classes to phonics type activities resulted in these classes being significantly ahead of the other classes in phoneme awareness and phonics knowledge, as well as on standardised tests of reading (10 months of reading age ahead) and spelling (11 months of spelling age ahead). Even though the teachers using the Big Book method did include some letter-sound instruction along with shared reading activities, the amount of phonics emphasis required to accelerate initial reading progress was simply not sufficient; the Big Books-taught children, for example, took a year longer to make the same gains in phoneme segmentation and phoneme identity ability that the synthetic phonics children had made during the first 12 weeks of instruction, one year earlier.

This study demonstrated, in particular, the need for speed of learning at the beginning in order to avoid constant struggle later on, to catch up. The pace of learning will be enhanced by programmes such as the Nutshell programme where initial instruction concentrates on phoneme awareness in the context of print (in Sound Start, and in the Practical Phonics practice books), on letter-sound

learning and on blending and segmenting words both with and without print (in the SPA Kit, in the Fun Fit games, and in the Macademia Readers.)

Finally, a third study, recently conducted in Scotland, has received a lot of attention here in the UK since one of the forms of instruction investigated resembled, in part at least, the government's somewhat controversial National Literacy Strategy (NLS), a programme of instruction introduced to all schools in England and Wales in 1998. The study involved 13 classes of Year 1 children, and compared three methods of instruction, all of which included teaching children letter shapes and how to form them: 1) an 'analytic phonics' method (letter-sounds taught at the rate of one per week, in initial position of words only), 2) a 'phoneme awareness plus analytic phonics' method (letter-sounds in initial position in words, taught at the rate of one per week, but half the time, both phoneme and rime awareness were taught in the absence of print), and 3) a 'synthetic phonics' method (letter-sounds taught at the rate of six every eight days only in the context of print and seen in all positions of a word, along with segmenting and blending of all sounds in words) (Johnston & Watson, 1999). (Method 2 resembles the NLS instruction which includes devoting a considerable amount of time to the development of phoneme and rime awareness in the absence of print.)

The results of this study demonstrated that, after 16 weeks, methods 1 and 2 led to similar reading and spelling progress, both groups being on average one month below their chronological age, while the children taught with method 3 were 7 months of reading age and 9 months of spelling age ahead of the other two groups. In an earlier study, faster paced analytic teaching of letters-sounds led to less success than a similarly paced synthetic approach. The authors, therefore, concluded that it was not so much the faster pace of letter-sound learning in this later study that led to superior progress, but the fact that children exposed to this method were taught to segment and blend letters in all positions of a word.

Instruction which involves directing the learner's attention to letter-sounds in all positions of a word, and direct teaching of segmenting and blending skills, always in the presence of print, are both major features of the Nutshell programme materials. The well-thought-out components and procedures of the Nutshell reading programme are strongly supported by these recent research findings, but added to this the programme is not only a programme for beginners but includes comprehensive and well-structured phonics-based instruction to sustain and further accelerate learning as far as the sixth year of primary school. In addition, there continues to be a shortage of reading programmes which link the phonics instruction given with reading materials that permit the direct practice of skills taught. The Macademia Readers are a rare and valuable resource that fulfil this need.

Johnston, R. and Watson, I. (1998). *Accelerating Reading Attainment: The Effectiveness of Synthetic Phonics*. Interchange 57. The Scottish Office Education and Industry Department. Copies can be obtained from the following website: <http://www.hmis.scotoff.gov.uk/riu>

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