The Catch Up Project: a reading intervention in Year 3 for Level 1 readers (Research Note)

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ABSTRACT

The Catch Up Programme is a literacy intervention designed for children who are behind with reading at the start of Year 3 (7 to 8 year-olds). This paper describes pilot research that informed the project in its early stages of development, and the findings should therefore be treated with caution. The reading progress of a sample of 74 Catch Up pupils from 15 schools in three local education authorities was measured. This showed a considerable increase in pupils' reading ages across a 10 week period. A smaller experimental study was also carried out in nine Oxfordshire schools (48 pupils) to compare a Catch Up sub-sample with a Matched Time group and a Control group. Findings showed that the Catch Up pupils made considerably more progress during the same period than both the other groups.

INTRODUCTION

The Catch Up Project is a literacy intervention programme designed particularly for seven to eight year old (Year 3) pupils who only achieve Level 1 for reading in the Key Stage 1 Standard Assessment Tests administered in schools in England and Wales, Level 2 being the expected norm. The programme and resources are provided for teachers in a training pack that was launched in January 1998, following one year's development work. The research described in this paper is the original pilot study that was conducted during that developmental phase, and as such can only represent a starting point to our studies. All findings should therefore be treated cautiously, with the understanding that larger and more in-depth studies are currently underway.

Programme description

The programme consists of two weekly slots with each child, a 10-minute individual teaching session and a 15-minute group reading session. Diagnostic assessments are

provided for use at the start of the programme, and continuous monitoring systems are designed to integrate into the on-going programme. An important communication system is built into the programme to maximise the effectiveness of other adults who may also work with the child.

The 10-minute session offers a structured framework within which a tailored programme is taught to each individual child. The framework adopts a broad-based approach teaching a range of skills, strategies and concepts, including phonological knowledge (visual and aural), sight recognition of high frequency words, cueing strategies, and the links between reading and writing. The session begins with the Prepared Reading Approach, a procedure developed by the *Catch Up* team from an earlier study (Bentley and Reid, 1995), that focuses on reading for meaning. This is followed by the child reading while the teacher observes and records miscues, and then finally a linked writing activity. These effective and proven methods are grounded in research from different sources, e.g. Gardiner (1965), Clay (1986), Stanovich (1980), Goswami (1994), Huxford, McGonagle and Warren (1997), and are woven together into a realistic and manageable format for the teacher. A high emphasis is also placed upon positive reinforcement and praising specifics.

The 15-minute group session teaches about concepts of print, fluency and expression. It adopts different styles of group reading according to the type of text, and again, the time is divided into three approaches: preparing and modelling the text, group reading, and evaluating the performance. Extension activities and games are provided in the pack for the practice and consolidation of skills taught during the previous sessions. These might take place independently, with other children or with another adult.

Why Target Year 3?

Despite concerns expressed in the 1970s and 1980s about both the apparent 'plateau of attainment' in reading of many 7 year olds (e.g. Southgate, Arnold and Johnson, 1981, p. 7) and the lack of emphasis upon continuing the teaching of reading for 7 to 11 year olds (e.g. Goodacre, 1972), similar concerns continue to be voiced today (Ofsted, 1996). Department for Education and Employment statistics for children achieving less than Level 2 for reading in the Key Stage 1 Standard Assessment Tests consistently show around 20% failing to reach Level 2 (DfEE, 1997). Ofsted inspections have produced a similar figure, with much concern being expressed in Annual Reports about the so-called 'Year 3 Dip' (e.g. Ofsted, 1995). Such figures include children who achieve Level 1 and below. Likewise, teachers have reported similar proportions of underachievement amongst this age group (Thomas and Davies, 1997). In that study 18.4% of children were reported as being below average, but not sufficiently so to require statementing, and therefore were not entitled to additional learning support. In other words, approximately five children in each Year 3 class require a differentiated reading intervention programme, the implementation of which is the responsibility of the class teacher.

The curriculum at Key Stage 2 (8 to 11 year-olds) is vastly different from that at Key Stage 1 (5 to 7 year-olds). Increasingly content-based, it makes the assumption that children can read and write with some fluency. If they cannot, they are instantly at a disadvantage. Not only are they behind with literacy, they are also likely to be struggling with other areas of the curriculum, and at this point the gap begins to

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widen. To make matters worse, older children who have fallen behind with reading can lose confidence in themselves and often develop a low self-esteem (Beausang, 1992; Clipson-Boyles, 1992). This can be accompanied by negative attitudes towards reading (McKinley, 1990; Rowe, 1991; Clipson-Boyles, 1996). Predictably, these factors are inextricably linked as the children develop a resistance to what they perceive to be a difficult, and sometimes unpleasant, experience. These can present significant additional barriers to the whole process of catching up, and teachers need to consider, not only how they will teach reading skills, but also how they will rekindle an interest in and enjoyment of books, as well as restoring lost confidence. It is vital, therefore, that such children are identified at the end of Year 2, so that appropriate teaching can take place to help them 'catch up'. The aims of the *Catch Up Project* are to provide Year 3 teachers with an effective programme that is realistic and manageable in the classroom, for that purpose.

THE CATCH UP RESEARCH

A pilot pack was developed to use in trial schools during the Autumn Term, 1997. At that stage, there were two main research questions to be answered:

- 1. Could the programme help a sample of Year 3 pupils, achieving Level 1 for reading, to make accelerated progress in literacy?
- 2. How did gains made compare with similar samples of pupils who received alternative treatments?

(Teacher responses to the programme and materials were also analysed, but this part of the study is not reported here.)

Method

The Catch Up Programme was administered across ten weeks, starting with the initial diagnostic assessments. The reading ages of six pupils in each of 15 schools were measured at the start and end using the Hodder Reading Progress Literacy Baseline Test (Vincent, Crumpler and De La Mare, 1996), chosen because of the range of skills and knowledge covered by the test.

A comparative experimental study was also conducted using a sub-sample of five schools selected from the main sample and matched with two parallel groups of similar schools. The *Catch Up* sub-sample pupils received the intervention. The second group (Matched Time Group) received the same prescribed time allocation as *Catch Up* (a weekly 10-minute individually taught session plus a 15-minute group reading session) but the teachers were provided with no guiding framework or resources to help them plan these sessions. The third group (Control Group) continued with the normal pattern of input from their teachers, whatever that might be.

The main sample

Purposive sampling was used to select 15 schools in Oxfordshire, Milton Keynes and Berkshire. These were chosen to reflect as wide a range of schools as possible using

roll size, free school meals, speakers of additional languages and catchment area as variables. The pupils selected were in Year 3, and born between 1st September 1989 and 31st August 1990. They had all achieved Level 1 for reading in the Key Stage 1 Standard Assessment Tests the previous term. Each school was asked to work with six pupils within this category, (the usual average per class) but some schools were unable to do this, in some cases because they were small schools and in others because of management difficulties. Some of the original pupils were not available for post-testing at the end of the ten weeks due to illness or moving to a new school, and so could not be included in the overall study. This provided a final total of 74 pupils for the main sample.

The experimental sub-sample

For the experimental sub-sample, five Oxfordshire schools were selected from the main sample to provide a representative cross-section of school types using roll size, free school meals, English as a second language, catchment area and age range (e.g. junior/primary/first) as variables. These were matched with two further groups of five schools, each of which was carefully selected to mirror the *Catch Up* group as closely as possible. Thus, the experimental sample of 15 schools was composed of three evenly-matched parallel groups. As with the main group, each school was asked to work with six pupils who had achieved Level 1 for reading in the Key Stage 1 Standard Assessment Tests, making a total sample of 90 pupils.

One problem with the research design was that participant loss in any one group meant the withdrawal of the parallel numbers in the other two groups. The final sample was nine schools (three per group) providing a total of 48 pupils: 17 in the *Catch Up* Group, 14 in the Matched Time Group and 14 in the Control Group.

RESULTS

The mean reading age score for the main $Catch\ Up$ group (N = 74) on the pre-test was 6 years 6 months (78.3 months; s.d. = 6). The range was 5 years 6 months to 8 years 5 months, with the latter being a significant outlier. The average reading age score on the post-test was 7 years (84.4 months: SD = 7.5). The range at this stage was 6 years to 8 years 5 months. This translated to a total reading age increase of 6 months across the 10 week period. In real terms, deducting the 10 week duration, which can be assumed to contribute a time-related maturational increase regardless of intervention, meant an actual gain of 3.5 months. The Ratio Gain [calculated on the basis of gain in reading age (in months), divided by the time elapsed between preand post-tests (in months)] was 2.6. (For a definition of 'ratio gain' see Topping and Lindsay, 1993.)

In the experimental sub-groups, the average reading age gain for the *Catch Up* pupils was considerably greater than those of both the Matched Time Group and the Control Group. The average gain in months was 8.6 for the *Catch Up* pupils compared with 3.5 for the Matched Time Group and 1.1 for the Control Group. The ratio gains were 3.4, 1.4 and 0.4 respectively. The pre-scores and post-scores of each

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group were examined by NFER (Brooks et al, 1998)¹ to see if there were any differences in gain across the 10 weeks, and effect sizes were calculated using the Delta Formula of Glass, McGaw and Smith (1981). The effect size for the *Catch Up* group was large at 0.78, whereas that of the Matched Time group was small at 0.25. (The effect size for the main group could not be reliably calculated because it did not have a matched control group.) These findings are summarised in Table 1, along with results of the larger total *Catch Up* sample. A one-way analysis of variance of the gains showed that differences between the groups were significant [F(2,47) = 5.92; p < 0.005)].

Table 1. Reading age gains for each group across 10 weeks from pre-test to post-test (in months).

		Pre-Test		Post -Test		Gain		Effect	Ratio
	N	Mean	s.d.	Mean	s.d.	Mean	s.d.	Size	Gain
Catch Up: Total group	74	78.3	6.0	84.8	7.5	6.5	5.3		2.6
Catch Up: Sub-group	17	79.6	4.3	88.2	6.2	8.6	5.9	0.78	3.4
Matched Time Group	14	77.1	4.5	80.6	8.2	3.5	5.4	0.25	1.4
Control Group	14	81.0	9.6	82.1	7.7	1.1	6.5		0.4

As might be expected, there was a distinct gender imbalance in the *Catch-Up* sample, with almost twice as many boys (66%) as girls (34%). This supports the findings of current research on the low literacy achievement of boys (see QCA, 1998). Likewise, there were more children born during the summer months, with 40% of children being born in June, July and August. Dividing the months into the two halves of the academic year, winter (September to February) and summer (March to August) showed that almost twice as many children had birthdays in the summer months (66%) as in the winter months (34%).

CONCLUSIONS

The Catch Up Programme appeared to help this small sample of pupils make accelerated progress across a 10 week period, as measured by reading age. When compared with other early intervention schemes (Brooks et al, 1998) Catch Up ranked 6th out of 28 schemes for effect size. Although there are other interventions that might also reap the same (or better) results, none of the teachers in this research had previously used a specific intervention for Level 1 readers as part of their ongoing practice. Thus the real issue here is: What happens to these children if they are not explicitly targeted?

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¹ The table of these statistics in the first and second impressions of Brooks et al, 1998, (p. 71) were incorrectly described as standardised scores. Instead they should have been described as reading ages. This has been corrected in the third impression.

For the matched sub-sample, the Catch Up Programme was more effective than teachers' own interventions even where an equivalent allocation of time was used. In other words, merely allocating extra time was not enough to help these children make accelerated gains. However, the additional time did reap a slightly better result compared with the group where no intervention was made at all. This implies that there were three levels of effect. At the lowest level, teachers acknowledged the needs of these children and addressed these in whatever way they believed appropriate as part of ongoing classroom practice. The next level up offered specially allocated time on a regular and systematic basis, which included individual teaching. The greatest improvements were seen when that systematic time was structured into an individually-focused teaching framework, supported by proven strategies and inbuilt management systems. This suggests that in classrooms where Level 1 readers are not explicitly targeted for additional help, progress is less likely to be made than in classrooms where a planned intervention takes place. However, the nature of the intervention is also crucial, as is the manageability and cost-effectiveness (Clipson-Boyles, 1999).

The limitations of these initial indications are recognised, and any major claims about the efficacy of *Catch Up* will need to be grounded in more long-term comprehensive evaluations. It will also be important to investigate what is influencing children's progress. Larger-scale studies are now taking place, including a longitudinal study to investigate the sustainability of progress made by *Catch Up* pupils over a four year period. Nevertheless, it is clear that children who are behind with reading at the start of Year 3 need a planned programme of differentiated support from their teacher, and the *Catch Up Pack* appears to provide teachers with a set of simple tools to equip them for this vital task.

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Further information about the *Catch Up Project* can be obtained from:

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