

# Rainbow Reading Programme; Using Taped Stories The Nelson Project

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## Abstract

The Rainbow Reading Programme is a read-along taped reading programme involving repeated readings. In 1993 the Rainbow Reading Programme was trialled by over 150 students and 20 teacher aides in 15 Nelson schools.

This paper describes the programme, documents its implementation and reports on the progress made by 43 students who had been identified by their teachers as having the most significant difficulties in reading in their schools. These students, on average, more than doubled regular rates of progress, some making gains of up to 4 years in reading level in 12 months.

## Introduction

Students who underachieve in reading commonly have poor attitudes toward reading. Unlike their peers who are better readers they usually engage in significantly less independent reading and the relatively few reading experiences they do have, are generally less satisfactory and far from rewarding (Stanovich, 1992, Juel 1988).

This reduced exposure to print sets up a particularly perverse poor-get-poorer effect where, according to Stanovich (1992), the less skilled readers fall increasingly further behind their peers not only in reading but also in other aspects of verbal and cognitive development.

By the early 1990s the Nelson Resource Teacher of Reading (R.T.R) Service had become inundated with referrals requesting assistance for such students who were underachieving in reading. As the number of referrals approached 85 it became increasingly obvious that only a very small percentage would ever receive the specialist assistance they urgently needed. Despite the best efforts of their parents, teachers and teacher aides, the chances of these students becoming independent readers in the near future were very slim.

Only 10 - 12 of those 85 referred students could be reasonably assisted at any one time, by a single R.T.R working with students in individual settings which was then the typical mode of service delivery. Decisions as to who would be included on the roll were extremely difficult to make. Would the best choice be younger students who didn't have so much ground to catch up, or older students for whom this may be their last chance? With so many students awaiting assistance, how long could individual assistance be justified for those on the roll? Should the R.T.R. risk discontinuing students early if they had almost caught up with their peers but could so easily drop back?

With such decisions becoming more and more necessary yet no easier to make, a programme was sought which could cater for the needs of those students awaiting assistance and those who had developing but not yet independent or self-extending reading skills.

A Read-Along Taped Reading Programme that involved repeated readings seemed to have the most potential to capture students interest, increase their exposure to print and allow them to engage in successful, meaningful reading experiences that they could learn from. Mooney (1989) maintains that children learn to read by reading and that best results are achieved when books are rewarding and have meaning.

The practice of rereading familiar books is recommended by Clay (1993) as it encourages fluency and confidence, and provides practice in bringing reading behaviours together (orchestration). It also allows the reader to discover new things about print during the rereading because when control over the text is achieved, attention shifts to features of the text or story not previously attended to.

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The resultant programme which was developed, the "Rainbow Reading Programme", using taped stories had the advantages of being appealing and beneficial to a wide range of students with a variety of skills, needs and interests. Also, it was designed to be relatively simple to implement correctly and cost effective.

The programme is based on various other tape-facilitated reading programmes such as those of Bethune (1985), Carbo (1978), Heckleman (1969) and Medcalf (1989), but it was extensively modified, extended, documented, refined and improved as it was trialled by over 150 students and 20 teacher aides in 15 Nelson schools.

From the beginning, when students were screened to determine whether they were best suited for Rainbow Reading Programme practice or for individual tuition, careful data was collected so that answers to the following questions could possibly be obtained.

- Would schools be willing and able to implement the programme according to documented procedures?
- Would students make progress on the programme? If so, how much?
- Would any progress made be maintained?
- How many weeks were typically needed for how much progress?
- Would students who started the programme at levels above their Instructional Reading Levels make progress?

**The following report describes the Rainbow Reading Programme, documents its implementation reports on the progress made by the students.**

### **Subjects**

Eighty-five students had been referred to the Resource Teacher of Reading Service for assistance with their reading and writing. These students were between 6.5 and 13 years of age and were from Nelson and Richmond Primary and Intermediate schools. Their Instructional Reading Levels ranged from 5 years to over 13 years. Some students had been on Reading Recovery programmes for 6 year olds, and all were those for whom teachers had the most concern and difficulty in providing

programmes as they had the most significant difficulties in reading in their schools.

Of the 85 referrals, 15 were found to be reading at levels considered at the time to be too low for Rainbow Reading (below 6.5 - 7 year reading levels), so were initially, individually tutored. They typically joined Rainbow Reading groups later, when their skill levels improved, but their data is not included in this study.

Thirteen students were found to have reached reading levels at least equivalent to their chronological ages, while they were awaiting assistance and so they were removed from the referral list. A further 8 students had either moved away from the district or on to college where students cannot be assisted by the R.T.R.

The remaining 49 students were considered to have needs that could be met by the Rainbow Reading Programme. Their reading levels were below their chronological ages yet they could read at or above the 6.5 - 7 year level. This group was reduced in number to 43 as six students moved away from the district during the year and follow up data was unavailable.

The 43 Rainbow Reading students ranged in age from 7.8 years to 12.8 years (average 10.1 years) at Initial Testing in February 1993. Their reading levels at this time ranged from 6.5 - 7 years to 10 - 11 years with an average level of 8 - 8.5 years.

### **Measures**

In February 1993, the 85 students who had been referred to the R.T.R for assistance with their reading were assessed using Unseen Graded Text or Informal Prose Inventory passages to establish their current Instructional Reading levels. An Instructional Reading Level was defined as being the highest level a student could read, after a minimal, standard orientation, with 90% accuracy or more. Comprehension was also checked, but for the purposes of this study was not used as a criterion for establishing reading level.

For the 43 Rainbow Reading Programme students, this assessment was repeated in August 1993 by the initial tester, the author/R.T.R again in December 1993 by independent testers in schools and yet again in February 1994 by one of three R.T.R.s, one of whom was the initial tester.

Students' Instructional Reading levels at initial assessment in February 1993, were their starting levels on the Rainbow Reading Programme, which began for most in March. If students were initially assessed as having an Instructional Reading level of 6.5 - 7 years, they started at the 7 - 7.5 year level which was, at the time, the easiest level in the Rainbow Reading Programme.

### **Equipment**

With the help of generous donations, the following equipment was purchased by the R.T.R. Service and loaned to students: personal cassette players with headphones, battery chargers, rechargeable batteries, taped stories, book bags and handbooks.

Stories used were chosen from New Zealand School Journals which are distributed free of charge to all schools. Those chosen consisted of 130 short (200 - 600 words) high interest stories and articles. Permission to record stories was obtained from Learning Media and from authors. Stories were graded at 6 different levels of difficulty (7 - 12 years) according to the publishers' recommendations based on the Elley Noun Frequency Method (Elley 1989). Stories were identified in the order of the colours in a rainbow from where the programme gets its name.

Stories were recorded on tape by trained readers who read fluently but slowly enough for students to follow along. For ease of use just one story was recorded on each tape.

### **Procedure**

Students involved in the programme were required to listen to taped stories, at their current Instructional Reading Level, through personal cassette players for 15 - 25 minutes daily while they read along silently at the same time. Prior to the first practice, teachers gave students a short, oral orientation to the story. A record of practices was kept by students, in their Students' Handbook. They practised reading the same story with tape support until they decided they could read it fluently and accurately without support. At this stage they read, without the tape, to check their prediction. Then students either conferenced with a teacher or practised some more with the tape.

During conference times, teachers checked accuracy, rate of reading, fluency, strategies in operation and comprehension. They wrote a comment in the Student's Handbook and recommended either further practice with another story at the same level or an attempt at another level. Promotion to a harder level was recommended if a student could read an unseen story at their current level easily or an unseen story at the next level with at least 90% accuracy.

### **Settings and Tutors**

Groups of between 4 and 6 students were withdrawn from their classrooms to work with a teacher or skilled teacher aide all of whom were employed by the schools. Handbooks and minimal training were provided for tutors. Initial training of teachers and teacher aides took place in a large group of 40 interested people and lasted 45 minutes. It was not deemed necessary to train subsequent teachers new to the programme as the Teachers' Handbook was considered to be self explanatory.

Rainbow Reading practice can take place in students' classrooms but all Nelson tutors in this study preferred to withdraw students for their practice. The places to where groups were withdrawn varied markedly from libraries, staffrooms, spare classrooms or offices to book storage rooms. In all cases it was emphasised that Rainbow Reading practice must be extra to the regular classroom reading programme.

### **Liaison and Monitoring**

Liaison visits by the author, the R.T.R., took place fortnightly initially and were later reduced to just once every three weeks. During liaison visits, tapes were exchanged, students' and teachers' records in the Students' Handbooks were checked and progress, promotion and any concerns were discussed.

### **Results**

Forty-three students spent between 9 and 32 weeks (average 27.5 weeks) on the Rainbow Reading Programme. Time spent on the programme varied due to factors such as timetabling, availability of tutor time and space, student interest and discontinuation because skills level had reached the point where continued practice

on the programme was no longer considered necessary.

Students made, on average, gains of 2.2 years and up to 4 years in their reading level. At retesting, in February 1994, 23 of the 43 students could read at levels equivalent to or higher than their chronological ages. These particular students averaged 28.2 weeks on the programme.

Before students began practising on the Rainbow Reading Programme, they were, on average, reading 1.7 years below their chronological ages; ranging between 5 and 3.5 years behind what is considered to be average for their ages. Twelve months later, after an average of 27.5 weeks on the programme, and after a six week holiday break students had improved their reading to the extent that they were reading on average just 0.5 years below their chronological ages.

The four students initially assessed as having Instructional Reading Levels Of 6.5 - 7 years, all made significant progress ranging from 1.75 to 2.75 years in reading level.

The majority of students made the most progress in the first 18 weeks of their programmes between March and August, only improving, on average by 0.17 of a year between August and December. Most students continued to improve their reading level over the holiday break, making average gains of 0.4 year between December and February.

### **Discussions**

The data presented in this study confirm that the Rainbow Reading Programme has made a significant difference to the reading skills of a group of students, most of whom would not otherwise have received assistance extra to what their teachers could provide in schools. More than doubling regular rates of progress is significant in itself but is even more remarkable when one considers that these students had typically ceased to make any progress with their reading for some time. Prior to the implementation of the Rainbow Reading Programme most students were frustrated, had poor attitudes towards learning to read and were confused about which strategies to use. The Rainbow Reading Programme provided them with an

interesting, fun, non-threatening means of practice which resulted in immediately observable results not only in their reading skill but attitude to reading, reading comprehension and fluency. The fact that reading levels continued to improve over the holiday break when no formal practice would have occurred, suggests that these students have developed self-extending systems which resulted in them not only retaining but improving skill levels in reading.

The success of the Rainbow Reading Programme is due in no small way to the tutors and students who became quickly dedicated to a programme which they found enjoyable, easy to implement, cost effective and which produced observable gains, rapidly. Classroom teachers and parents also gave this programme their full support as improvement in reading reportedly generalised to other settings.

Without exception, Rainbow Reading Programmes were well implemented in schools by teachers, and sometimes by formerly untrained teacher aides who needed just a very minimum of guidance and instruction. The popularity of the Rainbow Reading Programme has been confirmed by the fact that all target schools have opted to continue the programme and many more schools are joining. Also within schools, many more students (including Special Needs students and students from non-English speaking backgrounds) are joining the programme. Some of these students use existing equipment loaned by the R.T.R. Service but others are using equipment that schools have purchased for themselves. Judging from the feedback received from teachers about these students, to date, it is evident that all are making progress at least equivalent to the researched group.

The Rainbow Reading Programme has made a huge improvement to the way the Nelson Resource Teacher of Reading Service is now able to operate. Decisions about which students to accept for tuition no longer have to be made as all students reading at or above the 6.5 - 7 year level are first assisted by means of the Rainbow Reading Programme. Some receive extra assistance with their writing as well. If they fail to make expected gains on the Rainbow Reading Programme they join the roll for

individual tuition. Five students from the present study fit this category.

Students who are reading below the 6.5 year level are intensively, individually tutored in reading and writing. They now receive individual tuition just until they reach levels where they can manage on the Rainbow Reading Programme.

The introduction of the Rainbow Reading Programme in schools has meant that older students and/or those with lesser delays in their reading are no longer overlooked in the quest to assist younger students and/or those with larger delays. The group with lower reading levels are given priority for individual assistance but they now need fewer lessons as the R.T.R can transfer them to the Rainbow Reading Programme confident that they will continue to build on gains made.

This paper has described just one way in which the Rainbow Reading Programme can work. The results indicate that this programme is well worth continuing, extending and researching further. Future studies could compare any differences in outcomes for those who were tutored by teachers as opposed to those who were tutored by teacher aides. Comparisons could also be made between those withdrawn and those practising in class. Time spent on the programme needs to be investigated as most gains were made in the first 18 weeks although most students continued for 32 weeks. If it could be accurately predicted which students would significantly benefit from extra time on the programme, others may be able to be successfully discontinued earlier.

Any difference in the programmes and strategies in operation of lower progress readers needs analysing. Formal data needs to be collected on the degree of generalisation of skills acquired to other settings like home and school and to other subjects such as writing. Results of Attitude Assessments need to be analysed and reported and comprehension levels of students needs assessing.

The progress of special needs students and students from non-English speaking backgrounds needs investigating and tabulating as does the possibility of using this programme more widely with all students regardless of their age, interest or skill level. When it became obvious, in the

very early stages of the study, that students reading below the 7 - 7.5 year level were benefiting from practice on the programme, tapes and stories at easier levels were introduced. Students with instructional reading levels as low as 6 years were found to make good progress, but this needs further investigation.

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