

The **CORRECTIVE READING PROGRAM** is a remedial reading program designed for students in Year 3 and above, and has successfully been used with secondary school students. It comprises two strands: Decoding and Comprehension, and within these strands are a number of levels. The Decoding strand is the focus of this summary, having 4 levels (A, B1, B2, C) corresponding to the students' decoding capacity assessed with a placement test.

The placement test is administered prior to the program and consists of several passages of prose, the rate and accuracy of reading determining the program level for any given student.

SELECTION

The placement test is designed to ensure that student groups are relatively homogeneous in their decoding ability, and that they are neither over-challenged by the level of difficulty of the program, nor already competent at that level. The test is administered individually and takes about five to ten minutes. Detailed instructions are provided for administration and scoring.

Typically, the screening sample is derived from class teacher reports of students whose reading progress had been of concern. This teacher-identified group is then assessed with the placement test.

The possible outcomes of such assessments are:

1. the child's current decoding skill levels are below those of the lowest level of the program (Level A), and would be best addressed with a beginning reading program.
2. the child is appropriate for placement in one of the four program levels, or
3. the child has already mastered the decoding skills taught at each level, and any reading deficits are probably not in the area of decoding.

Depending on the range of Year levels included in the assessment cohort, it is possible that, meeting all the students' needs would require the provision of several of the levels. Schools then decide which group or groups they are able to supply with a program. In some cases schools decide to provide one program as a pilot, and plan subsequent programs after evaluating the first. This is a reasonable decision, but means that some of the identified students will not receive (immediate) assistance.

This decision usually causes some discomfort, and it is tempting to alter remedial direction and simply supply a little (usually ineffectual) aid to all of the identified students rather than select only a subset for the intensive program. As all of the students who fall within the Program's range are equally in need of support, the basis for selecting one group must be on grounds other than differential need.

In some schools the identified-but-not-treated group will receive assistance in the next round of programs offered by the school. With most schools, this latter sequence ensues. Schools are usually enthusiastic about extending their program involvement, supported by objective and subjective evaluation of their pilot. Occasionally, the program has been discontinued when school resources are insufficient to provide the staff required.

Program Design

There are two major features evident in the CRP. They are the emphasis on decoding skills (phonics) and the Direct Instruction approach to teaching the phonics content. It includes work on both isolated words and connected sentences, but its major emphasis is at the level of word structure. It is made clear to students that the decoding of novel words involves careful word analysis rather than partial cue or contextual guessing. Students are continually prompted to take account of all letters in a word, and become sensitised to common (and often problematic) letter groupings, for

example, those beginning with combinations *st, bl, sl, fl, pl, sw, cl, tr, dr*; or ending with *nt, nd, st, ts, mp, ps, cks, ls, ms, th, er, ing, ers, y*. The sentences provided are constructed in a manner which allows few clues for contextual guessing, but provides ample opportunities to practise what has been learned in the teacher-presented word-attack segment of the lesson.

Lessons are designed to be provided in groups of up to 15 students. Most first time groups comprise about 10 students. The rationale for this reduction involves the lack of experience of the teachers with the program, and the observation that in most groups of poor readers there are usually several students difficult to motivate, and maintain on-task.

This first hurdle is difficult for teachers more used to a less directive model of teaching. Lessons are scripted, and most teachers report requiring at least 20 lessons before reasonable comfort with the approach is achieved. Teacher support is valuable in the early stages to assist in this skill development, and to preclude teacher-initiated program changes that may jeopardise program success. The requisite level of support varies from teacher to teacher; however, in most cases it is difficult to provide the extensive training model described by the program designers.

The program designers argue that the program combines the benefits of 1:1 tutoring with the effectiveness of group instruction. This is achieved by the use of choral responses prompted by various signals (a new skill for most teachers). Not only must teachers follow a script, but they must be able reliably to signal students when to respond, and then pay attention to each student's response in order to monitor skill development and teaching effectiveness. The results of this monitoring process help determine lesson pacing by controlling the amount of repetition necessary for mastery. The larger the group, the more difficult it is to continuously monitor every student's progress - thus smaller group sizes are helpful for first-time program teachers. As teachers' reliance on the script diminishes, and as their signalling improves, so their adroitness at student monitoring improves and they are better able to manage larger groups.

The issues of behaviour management looms larger in secondary than primary schools. Participation in the reading program often involves parent, but not student, consent; that is, students were not volunteers. Most schools considered the needs of the students too important to allow students the right of veto. To help motivate students whose history has made reading a non-preferred activity, the program includes a points system for each lesson segment. Most schools perceive the advantage of this system and incorporate it successfully into their plan. The potential for program disruption by a few disillusioned students is an additional reason for beginning with smaller group sizes.

Lessons typically range from 45 minutes to one hour, dependent on teacher lesson pacing. Typically pacing improves with experience, but initially some teachers are unable to complete a whole lesson in the time allotted.

Program design specifies an optimum schedule of five lessons each week. This level of intensity has been found important for students with reading problems, as they tend to have difficulty retaining new skills and knowledge. For this reason, there is strong emphasis on massed practice for mastery, and spaced practice for retention. If lesson frequency falls significantly, retention may be jeopardised leading to a general progress deceleration. However not all schools are able to timetable five lessons per week, and even those which do so find competing events sometimes forced class cancellation.

The Corrective Reading Program is often chosen as the intervention program for the RMIT Psychology Clinic because of my experience with it, and its record of success in improving the reading outcomes for children at-risk. This has been noted in the empirical studies available in the research literature, and also in the regular evaluations I perform in schools and in the Clinic. At the Clinic we also train parents to provide the program to individual students.

Early Research

This latter experience involved the period from 1983 until 1988 in a semi-rural Melbourne secondary school at which the author was the consulting educational psychologist. Over a number of years the school had been concerned at the prevalence of reading problems throughout the school. The school was at the time officially designated as a disadvantaged school, for reasons of low socioeconomic status, high unemployment, and a significant population of Koori students.

In 1979, the Progressive Achievement Test of reading comprehension was administered to Year 7 students at the high school. Compared to an expected value of 23% (stanine 1-3), 43% of Year 7 students were below the State average. This finding galvanised the school into taking remedial action, and from 1983-1988 the school offered the Corrective Reading Program to Year 7 (and at times also to Year 8) students with severe reading problems. The author trained and monitored teachers, and performed evaluations each year including the Woodcock Tests of Reading Mastery, and parent, teacher, and student questionnaires.

Results (student outcomes) were consistently impressive over that period, but not without travail as secondary aged students can be difficult to motivate. In addition, some staff believed that it should not be necessary to teach such basic skills in a secondary school. As the existence of the reading group relied upon the other English teachers agreeing to have larger classes (about three or four additional students per class) to allow for a small remedial group (15 students maximum), it was often a struggle to obtain the agreement to continue the program each year. Nor was it usually easy to convince a secondary English teacher untrained in reading instruction to volunteer for the task, with its consequent imposition of regular visits and advice from the educational psychologist.

Effects of implementation in primary schools

Partly because of these hurdles, but also for reasons of humaneness to struggling students, it was decided that the same interventions could be provided earlier in the students' careers more easily, and to greater effect. In the years 1986-1989, the same or similar programs were introduced at local feeder primary schools. It was hoped that by earlier intervention the number of students entering the high school with severe reading problems would be reduced. This approach was quite fruitful as progressively fewer students from those feeder schools reached secondary school with extreme levels of reading difficulty. Although the process of convincing then assisting a number of schools (rather than only one) to provide the intervention was more complex and time consuming, nevertheless the outcomes were especially pleasing.

Of particular interest at that time was the effect on students' measured comprehension skills (assessed via the Progressive Achievement Test at the end of Year 6)) of a strongly focussed decoding program. In other words when the students' decoding deficit was addressed, they were able to bring their existing oral comprehension skill to the reading task, a strategy not previously available to them. Additionally, the students' phonemic awareness ability as applied to the written word (assessed by the Word Attack subtest of the Woodcock Tests of Reading Mastery) also indicated excellent gains, usually exceeding the number of months needed to present the program.

In 1986, there were 26 students whose reading problems were sufficient to place them at serious risk in the secondary school, and they participated in the Direct Instruction reading groups. In 1987 there were 20 such students, in 1988 there were 14 such students, and in 1989 there were 5 such students. During this period enrolments in Year 7 remained relatively stable, yet the numbers of at-risk students were consistently falling as the students who had participated in the Corrective Reading Program at the feeder schools arrived at the secondary school.

In 1989, 12% of Year 7 students were below the state average in reading, comparing more than favourably with the expected value of 23%. Compared with the figure ten years earlier (43%), this was a very pleasing result for the secondary school, and also for the feeder schools. The other figures for 1989 were: 62% of Year 7 students within the State average (expected value 54%), and

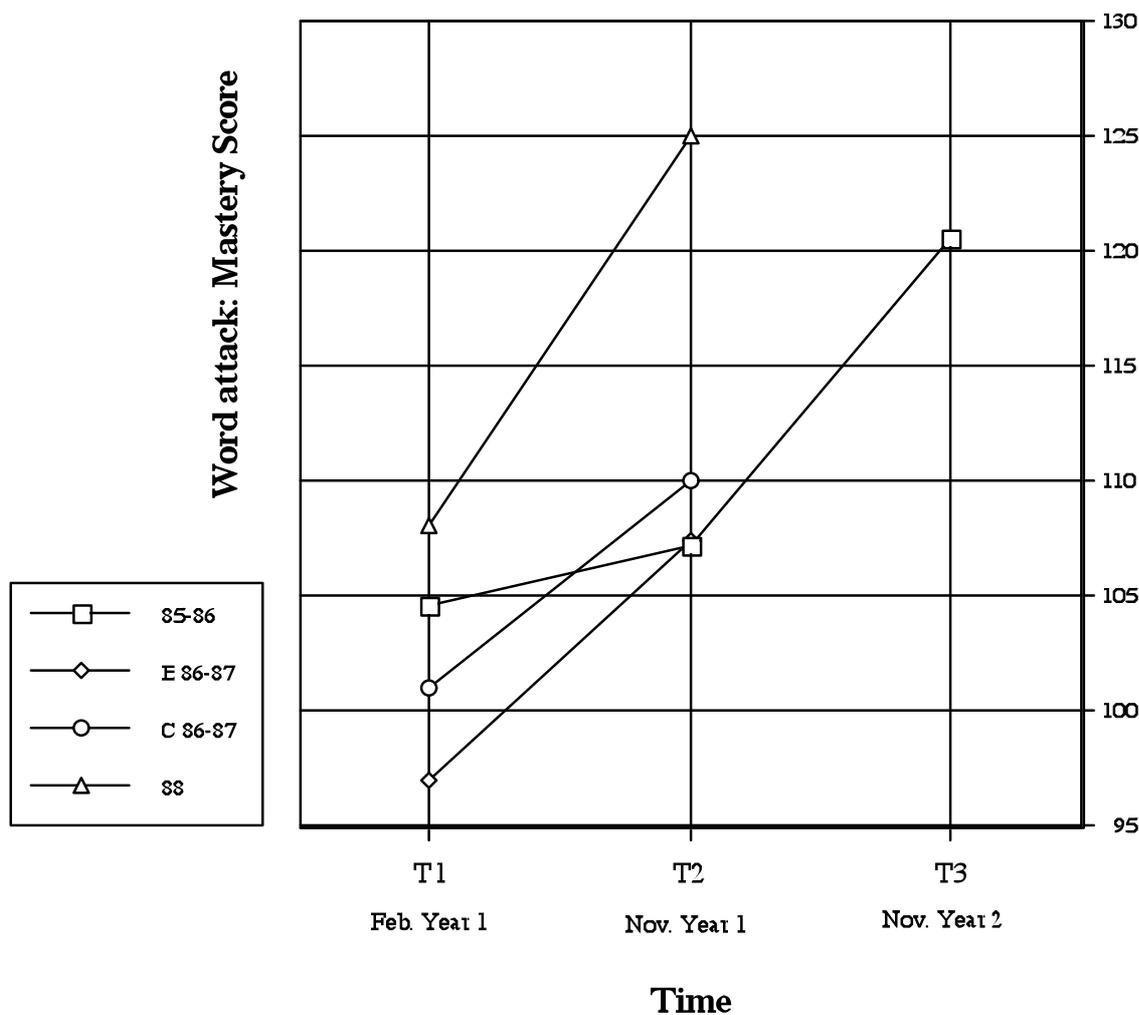
26% of Year 7 students above the State average (expected value 23%). Unfortunately the secondary school's response to the program's success was to drop all remedial programming from the timetable, rather than to extend the at-risk students' skills in reading, or in other curriculum areas.

The effects on phonological processes of the Corrective Reading Program as noted in the pseudoword decoding task of the Woodcock Tests of Reading Mastery were of particular interest because of the pre-eminence given to these skills in the current research literature.

Pseudo-word decoding, (is) an indicator of phonological recoding ability, and potent predictor of reading ability at all levels. (Stanovich, 1988).

The outcomes were consistent across a number of years, involving several teachers, and also appeared to support a dose-response relationship, in the sense that progress continued as long as instruction did. As can be seen in the accompanying chart there is significant improvement in each year that the program results were available, and those students involved in more than one program continued to improve.

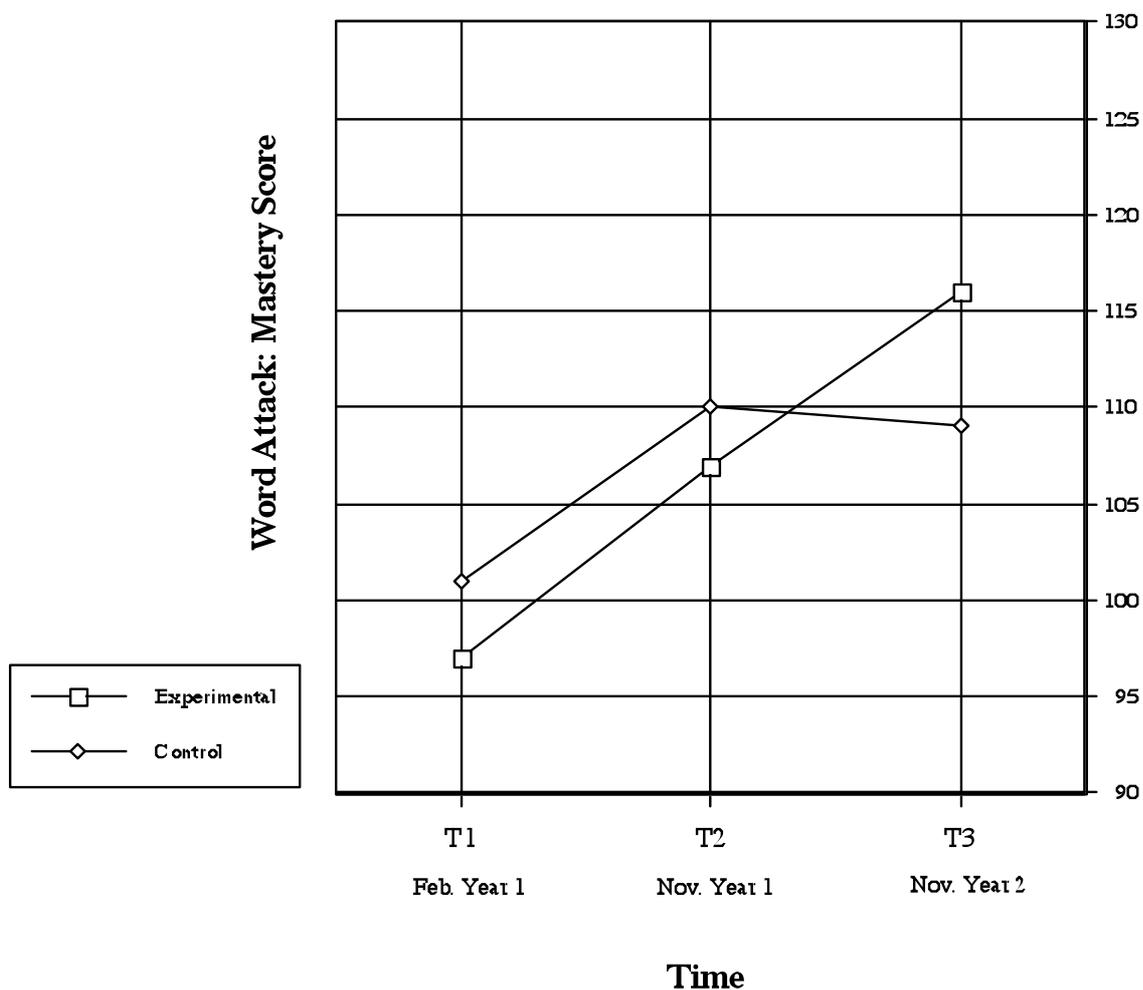
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In the years 1985-6, and 1986-7 two cohorts of students completed Decoding Level B (140 lessons in the earlier 1978 version), followed by Decoding Level C (140 lessons) in Year 8. The continued success over a two year period renders explanations based on Hawthorne (novelty) effects implausible.

Interestingly, with the 1986-7 group it was possible to examine the effects of treatment, employing a non-equivalent group quasi-experimental design, as there were sufficient school resources to provide for teaching Decoding Level B to two groups in Year 7. Both groups (13 students) were selected according to the placement test, and thus were similar in their reading skills. There was an average Word Attack score difference of 4 months, and gains were similar for each group during 1986, as shown by the almost parallel gain slopes. The groups were provided with similar programs and schedules, but by different teachers. In 1987, only one group was able to continue on to Decoding Level C, as school resources were insufficient to allow program duplication. The teacher who was assigned to take a group in 1987 elected to continue with the group she had taught the previous year, and the remaining group became the control group.

CRP 86-87: Experimental & Control



Cooke and Campbell (1979) describe the trend line crossover evident in this comparison as “Outcome 5” (p. 111). They consider the only plausible interpretation of this interaction pattern is the presence of an experimental effect, indicated by the lower scoring pretest group surpassing the initially higher scoring control group. They do not consider regression effects can account for such a difference. The results of visual inspection of the gains of the two groups strongly suggest a conclusion that the Corrective Reading program is an effective program, and capable of inducing sustained change even over long periods of an intervention, and with populations considered resistant to reading improvement.

The Direct Instruction model has been available for a long time in education, but until recently surprisingly little serious attention has been paid, from both the education and educational research communities. Recent research summaries from the American Federation of Teachers, from the

Millikin Foundation, among others have drawn attention to the large corpus of supportive research developed over the years indicative of the effectiveness of the model. It is now being implemented with varying degrees of fidelity in increasing numbers of school settings. In the USA, this interest has been driven partly by the impact of the Reading Excellence Act with its emphasis on empirically supported programs as a requirement for federal funding.

Interestingly, in Victoria, Australia there has been a parallel rise in the adoption of Direct Instruction programs without any such state or federal government support. In Victoria, for example, there are at least 350 schools that have purchased Direct Instruction programs and teacher interest groups are springing up. Whilst there has been no government statement about appropriate teaching models, the former wholesale acceptance of the Whole Language model is sharply declining, except for the maintenance of Reading Recovery as the first line of remediation.

In recent years, state and federal governments have introduced large scale testing programs, and community interest in the generally disappointing findings has prompted schools to address this hitherto hidden problem. Schools wish to be seen to be doing something positive, and the rise in consumerism has hastened that process. Parents have the right to choose a school for their children, and schools do not wish to be outbid by those offering more assistance to students who struggle. The Direct Instruction model has some administrative features that make it an attractive option. Lessons fit readily into a school timetable, their completeness relieves schools from developing their own curricula, and the clearly defined skill objectives make reporting to parents a simple task. As the number of schools increases, it is easy for a school contemplating the implementation of one or more programs to view those programs in operation at a school nearby.

The value of this process should not be underestimated. For many years I addressed staff meetings, organised workshops, and negotiated with school administrations about the priority that should be attached to teaching reading successfully and about the advantages for students and teachers in introducing Direct Instruction programs. There are considerable difficulties with the external consultant model of curriculum change when it is not mandated by education departments. In general, teachers are (quite reasonably) wary of outsiders suggesting change, and are far more comfortable being able to discuss issues with other teachers, particularly when they are in the same local area. Any change carries with it an element of uncertainty, of risk, and often the conservative position is more attractive. You don't make mistakes if you don't alter the status quo. Additionally, descriptions of programs (or even brief demonstrations) are far less compelling than being able to view real life implementations in settings similar to one's own. If another school or schools have already introduced such programs then it is less of a "courageous" decision to do so in one's own school.

The rise in acceptance of Direct Instruction programs has been very much a grass roots movement in Victoria. There is an element of Chaos Theory's assertion regarding the ultimate effect on world weather patterns of the flapping of a butterfly's wings in South America. In a number of districts, adoption has commenced as a consequence of a single referral made to the RMIT Clinic over a student's reading difficulty. Following the student's assessment, the parent is trained, supported and monitored in, for example, the Corrective Reading program. Within-program mastery testing and follow-up standardised assessment is performed and the initial and final assessments are presented to parents and school. The response from the school has often been one of great surprise, not necessarily at the data indicating the student's progress, but rather at the very evident change in the student reflected in classroom performance - a far more cogent argument for the program's success for teachers than is the test data.

A number of schools have been sufficiently honest to acknowledge their inability to achieve the same outcome for this student. They have also indicated that they have (and have always had) in their schools students such as this one, and others in an even more parlous state for whom they had presumed nothing could be done given the state of the school's resources. In a state where Reading Recovery has been promoted as the only option for struggling beginners, and relatively few schools

are able to address the full extent of their problems with this very expensive program, the concept of a group, rather than a tutoring, program that is affordable has considerable attractiveness to schools. The Corrective Reading program also fills the need for schools to be able to support older students, as Reading Recovery is intended only for Grade One students. In speaking with a range of teachers at workshops and in schools, it appears that a number of the students subsequently served by the Corrective Reading program are graduates of the Reading Recovery program in earlier years.

The outcome of the discussion that has followed the Clinic's involvement has been that the school adopts a program to attempt to meet the needs of students similar to the one originally referred. The grass roots nature of the spread of the program can be seen in the number of other local schools that subsequently adopt a program after one school has enjoyed a successful implementation. Another outcome has been the number of post-primary schools in the same areas that have also made similar commitments. Sometimes, this has eventuated from the regular liaison between primary and post-primary schools and sometimes because parents of students, who have derived benefit during the last year or so of their primary education, have interviewed the administrators of post-primary schools, prior to enrolment, about the continuation of the programs being a factor in their decision as to which post-primary school is best for their child.

There have been two other important influences on the interest in Direct Instruction programs in Victoria. One relates to the impact of an education unit attached to a local charitable organisation, Orana. Though a small unit, it has developed an admirable model with three elements. It runs classes all day using the Corrective Reading program and Teach Your Child to Read in 100 Easy Lessons for students brought in for a daily lesson from surrounding schools. It also offers a school visiting service to teach the programs to schools unable to provide their own program. It also contracts to train teachers in their school using initial training sessions, demonstrations with the teacher's class, and ongoing teacher support. This service has been popular, and ensures that programs are implemented faithfully, a critically important requirement that is not adequately addressed in many of the sites, due to the lack of sufficient numbers of skilled and experienced trainers.

In the Catholic system, a great deal of assistance has been supplied by an educational psychologist skilled in program implementation and in addressing the administrative issues that arise in schools contemplating such a proposal. Again, the notion of a critical mass of other schools already successful with a Direct Instruction program increases the likelihood of each new school's adoption.