

Meeting initial needs in literacy (MiniLit)

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Summary

The Meeting Initial Needs In Literacy (MiniLit) program is an evidence-based, explicit and effective model for teaching reading skills to small groups of young children who are at risk of falling behind in reading and related skills.

MiniLit is a Tier-2 intervention program that provides reading instruction for young struggling readers who have failed to make progress after their first year of formal schooling, and is inclusive of the lowest performing students. In Response to Intervention (RtI) models, Tier-2 interventions typically provide intervention in small groups, while Tier-3 interventions are generally more intensive, or one-to-one (Reynolds, Wheldall, & Madelaine p. 35, 2010).

MiniLit is a balanced reading program that, across carefully structured and sequenced lessons, covers sight words, letter–sound correspondence, blending and segmenting (phonics skills) and reading connected text.

Target student group

A total of 22 Foundation (K) and year 2 students participated in a NSW regional public school trial of the MiniLit program. The school is located in an area with a low socioeconomic profile. The group included students at or below the National Minimum Standard.

The Foundation (K), year 1 and year 2 teachers were asked to select the lowest 50 per cent of their class in terms of reading ability. Trained research assistants then screened the selected students and identified a group of 11 students – comprising four Foundation students and seven year 2 students – plus a control group of 11 students.

Method

The program had the specific objective of demonstrating the efficacy of MiniLit in assisting struggling readers from a very low socio-economic background and high level of social disadvantage. However, the MiniLit program has been designed to work in all school settings.

The students participating in this trial were from low SES and disadvantaged backgrounds, but MiniLit has also been successfully trialled with schools with high SES profiles. The program can be delivered by teacher aides or by teachers. It requires at least one staff member from each school that purchases the program to attend an intensive two-day professional development workshop.



This ensures that the program is delivered effectively in each school. Using the detailed lesson plans provided, MiniLit is designed to deliver to small groups of three to four students.

The MiniLit program was delivered in one-hour lessons, four days a week over three school terms (27 weeks) by instructors trained by the MultiLit trainers. (MultiLit is the entity responsible for developing the intervention.) Students were withdrawn from the classroom in groups of three to four students, organised by instructional level. The program consists of 80 carefully structured lessons, divided into two levels of forty lessons each:

Level 1: Teaching the basics of letter/sound knowledge and decoding skills for CVC (consonant-vowel-consonant) words.

Level 2: Extending word-attack knowledge by teaching commonly used digraphs and longer words.

The program involves at least four lessons a week of up to 60 minutes per day, and includes regular curriculum-based measures to monitor students' progress. The lessons include the Sounds and Words Activities component of the program (30–40 minutes), Text Reading component (5–10 minutes), with Story Book Reading (5–10 minutes) as the last part of the lesson.

Standardised tests, including Burt Word Reading Test, South Australian Spelling Test and the Martin and Pratt Nonword Reading Test, were administered to determine a baseline. It was initially intended to be delivered over two school terms (19 weeks) but part way through the second term – before post-testing commenced – it was decided to extend the intervention for a third term.

Formal observations of the lessons by MultiLit consultants had indicated that the MiniLit instructors – school staff with no previous experience of the program – did not begin delivering the program to the optimal level until at least half-way through the first term. Two of the instructors were registered primary school teachers, and one had no teaching qualifications.

A Treatment Integrity checklist was devised to evaluate the instructors' delivery of the program. Two experienced consultants from the MultiLit Research Unit observed MiniLit lessons eight times over the course of the intervention, at three- to four-week intervals. A Treatment Integrity checklist was completed for each instructor observed. The checklists contained up to 25 criteria, including all aspects of lesson implementation and positive-teaching strategies. Separate written feedback on performance was provided to the instructors, along with verbal feedback and discussion following the observed lesson.



Program implementation by the instructors did not reach the minimum criterion of 80 per cent fidelity until week 10, after which point the minimum 80 per cent fidelity criterion was maintained (and exceeded). In view of the relatively low treatment fidelity during the first term, it was decided to extend the program for a third term.

The two-day teacher training prescribes both content and pedagogy. Effective direct instruction teaching such as model-lead-test procedures (Carnine et al., 2010) is intrinsic to the program, as is the use of the revised Pause Prompt Praise technique employed in Reinforced Reading (MultiLit, 2007, 2011) (Buckingham, Wheldall & Beaman, 2012, p. 86).

Results

The academic team who implemented this trial designed the data collection. To ensure the integrity of the data, all pre- and post-tests were administered by trained research assistants, and were independently scored and double scored.

After three terms of MiniLit instruction, the experimental group had made greater mean gains on all four measures. Comparative mean gains on two of the measures (phonological recoding and reading single words) were statistically significant, with very large effect sizes. Comparative gains on the other two measures (spelling and oral reading fluency) were not statistically significant but yielded small to large effect sizes. The measures with the strongest results were the Martin and Pratt Nonword Reading Test and the Burt Word Reading Test, both of which require students to read individual words or nonwords aloud. The Martin and Pratt test explicitly assesses phonological recoding in its purest form, as it consists of pseudo-words that the child will never have encountered before and therefore cannot read from memory, while the Burt test has a mixture of phonically regular real words and phonically irregular real words.

After approximately three terms of instruction (27 weeks), students in the MiniLit program had made highly significantly greater gains in both kinds of word reading than the control group. On the one measure for which percentile ranks are available – the Martin and Pratt Nonword Reading Test – it provides evidence that the reading gap might be closed in the majority of cases using an effective Tier-2 intervention. All but three of the 11 experimental students (73 per cent) moved from the bottom quartile to above the 50th percentile, with the highest ranking at the 86th percentile. Full details of this research study are provided in the article by Buckingham, Wheldall & Beaman & (2012).



The key factor that contributed to the success of the trial school was the efficacy of the program itself, due to the extensive research on which the program is based. The program incorporates all five of the key skills required for learning to read as identified in the scientific research into reading over the last 30 years, and as described in international reviews. These five 'big ideas', as they are known, are phonemic awareness, phonics, fluency, vocabulary and comprehension.

Since the trial of MiniLit, schools across Australia and New Zealand in government, Catholic and independent sectors have used the program.

We trialled MultiLit with a group of indigenous students, with a 100 per cent success rate. Not only did they improve in reading and spelling, the increase in their self-esteem was incredible. We attribute the success to your program. Just over half way through 2012, I started four groups of students in MiniLit. We have just completed the 80 lessons and out of 16 students, all but two have achieved total mastery; the two students who struggled have made a powerful improvement but may now need to be immersed in the MultiLit course. I wanted to share our success and thank you for the powerful tools you have produced. (Principal, Western Australia)

Lessons learned

Successive trials of the MiniLit program over more than five years of research and development (including field trials) ensured a user-friendly, effective and efficient program was used in this implementation. Effective direct instruction teaching is intrinsic to the program, as is the use of the revised model of Reinforced Reading. Positive Teaching behaviour-management strategies are also a key feature to maximise academic engaged time.

The content and pedagogy of the program combined to create a highly effective intervention that may be delivered by teachers with varying knowledge, as well as by teacher aides (and other paraprofessionals) trained in the approach.

The school factor that ensured success was the principal's commitment to the initiative. There was support for the initiative from the top down, with the principal being the project champion. The implementation was welcomed and supported by other teachers in the school and by the parent body. This was important for the success of the implementation.



Schools that implement the MiniLit program will need to ensure that the school staff who are trained to administer the program have adequate time to do so with the group (or groups) of participating students. There also needs to be a commitment from the classroom teachers whose students are participating in MiniLit groups outside their classroom.

There needs to be effective communication between the MiniLit teacher and the class teacher so that the class teacher is aware of the skills development of the participating student. This is important in the context of the generalisation of skills taught in the more intensive small-group format in the broader classroom context. When students move back into the larger classroom context, the classroom teacher will need to ensure that the student is engaged effectively in the larger group after participating in instruction in a smaller group.

Next steps

It has become widely accepted that a three-tiered Response to Intervention (RtI) model is the most effective approach in addressing reading difficulties in young children (Gerston et al., 2009). Few small-group interventions have been developed and rigorously tested for children struggling with learning to read in the early years of schooling.

MiniLit is based on a premise that effective reading instruction is effective irrespective of student's economic background, but there are some differences with previous studies where students were drawn from a suburb with a high socioeconomic profile. The aspect of fluency may be influenced by differences in the home literacy environment. 'The home literacy activities of children of primary school age have been relatively neglected, however. This is an important avenue for future research' (Buckingham, 2012, p. 94).

In another study, the students had higher baseline reading abilities and the higher starting point might have allowed the students in the later study to consolidate their pre-existing word-attack skills and so reach fluency more quickly.

The instructors for this program were inexperienced, having only just completed the two-day training. The effect of the inexperience was evident. It is suggested that a second trial with the same instructors might achieve similar results in a shorter space of time given the additional experience.

The relatively small number of participants in just one school limits the generalisations of the findings. Also, the group was relatively homogenous in language background. None were from homes with English as a second language. Additional information of other trials is <u>available</u> .



'As a result of the trial, the MiniLit program has been further refined to more easily be implemented within one hour. More broadly, this study adds to the growing, and as yet incomplete, research literature on effective Tier-2 interventions for young struggling readers.' (Buckingham et al., 2012, p. 95).

Research base

Successive iterations of the MiniLit program have been continually revised following efficacy trials. Reports of the early development trials of MiniLit are reported in Reynolds, Wheldall & Madelaine (2007a, 2007b, 2007c).

A recent analysis of the progress of 90 struggling young readers who had attended MiniLit programs for four days per week for 15 weeks showed that they had made substantial and statistically significant gains on all of the measures of reading and related skills, with large effect sizes evident. Randomised control trials have also been completed confirming the efficacy of the program (Reynolds et al., 2010a; Buckingham et al., 2012; Buckingham et al., in press).

The MiniLit program was developed to meet the need for a Tier-2 program for young students that comprises all of the elements of effective early literacy instruction as determined by large-scale reviews of research. In line with the recommendations of the Australian (Department of Education, Science & Training, 2005), US (National Institute of Child Health & Human Development, 2000) and UK reports (Rose, 2006) on the teaching of reading, it is highly planned, systematic and sequential.

MiniLit fills a gap in literacy provision by extending supplementary instruction to a larger group of children at a lower cost than one-to-one interventions and as part of a high-quality response to intervention (RtI) model, and may reduce the need for Tier-3 interventions. It is inclusive of the very lowest performing students, only moving them on to more intensive Tier-3 instruction if they fail to make adequate progress. The content of the MiniLit program differs from other reading interventions in several important ways. It has a strong emphasis on phonemic awareness and phonics, teaching grapheme and phoneme correspondences explicitly and sequentially. Several pilot studies of the MiniLit program have guided its development and provided promising preliminary evidence of an early version of the intervention. Three initial pilot studies involved year 1 and year 2 students in MiniLit sessions of one hour each day, four days a week, over 15 weeks. In each of the studies, participating students made statistically significant gains on all standardised reading measures, with large effect sizes.



MiniLit is informed by the findings of scientific research, carried out over the past 40 years, into how reading works and how it may best be taught. It is also in accord with the recommendations of national reports into effective reading instruction that have emphasised the five key pillars of reading instruction (sometimes known as the 'five big ideas'): phonemic awareness, phonics, fluency, vocabulary and comprehension. The relevant research and the findings of the national inquiries are reviewed in two refereed journal articles by Reynolds et al. (2010b) and Reynolds et al. (2011).

Further reading and links

Copies of the articles are available through MultiLit; see contact details below.

Buckingham J, Wheldall K & Beaman R 2012, 'A randomized control trial of a Tier-2 small group intervention ('MiniLit') for young struggling readers', *Australian Journal of Learning Difficulties*, 17, 79–99: http://www.dx.doi.org/10.1080/19404158.2012.717537 ₺

Buckingham J, Wheldall K & Beaman-Wheldall, R (in press), 'Evaluation of a two-phase implementation of a Tier-2 (small group) reading intervention for young low-progress readers', *Australian Journal of Special Education*.

Department of Education, Science and Training (DEST) 2005, *National Inquiry Into the Teaching of Literacy (NITL), Teaching reading: Report and recommendations*, Australian Government, ACT.

Gersten R, Compton D, Connor CM, Dimino J, Santoro L, Linan-Thompson S et al. 2009, Assisting students struggling with reading: Response to intervention and multi-tier interventions in the primary grades. A practice guide, National Centre for Education Evaluation and Regional Assistance, Institute of Education Services, US Department of Education, Washington DC.

National Institute of Child Health and Human Development 2000, Report of the National Reading Panel. Teaching children to read: An evidenced-based assessment of the scientific research literature on reading and its implications for reading instruction NIH Publication No. 00-4769, US Government Printing Office, Washington DC: www.nationalreadingpanel.org/publications/publications.htm

Reynolds M, Wheldall K & Madelaine A 2007a, 'Developing a ramp to reading for at-risk year one students: A preliminary pilot study', *Special Education Perspectives*, 16, 39–69.



Reynolds M, Wheldall K & Madelaine A 2007b, 'Meeting Initial Needs In Literacy' (MINILIT): Why we need it, how it works and the results of pilot studies', *Australian Journal of Special Education*, 31, 147–158.

Reynolds M, Wheldall K & Madelaine A 2007c, 'Meeting Initial Needs In Literacy' (MINILIT): A ramp to MULTILIT for younger low-progress readers', *Australian Journal of Learning Disabilities*, 12, 67–72.

Reynolds M, Wheldall K & Madelaine A 2010, 'An experimental evaluation of the efficacy of an intervention for young struggling readers in year one', *Special Education Perspectives*, 19(2), 35–57.

Reynolds M, Wheldall K & Madelaine A 2010b, 'Components of effective early reading interventions for young struggling readers', *Australian Journal of Learning Difficulties*, 15, 171–192.

Reynolds M, Wheldall K & Madelaine A 2011, 'What recent reviews tell us about the efficacy of reading interventions for struggling readers in the early years of schooling', *International Journal of Disability, Development and Education*, 58, 257–286.

Rose, J 2006, *Independent review of the teaching of early reading: Final report*, Department for Education and Skills, DfES Publications, Nottingham: www.education.gov.uk/publications/eOrderingDownload/0201-2006PDF-EN-01.pdf

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