Web-based literacy intervention for struggling readers

Summary

Now in its fourth year, the Academy of READING program is an individualised web-based intervention that aims to build basic reading skills such as phonemic awareness, decoding and comprehension. This research-based small-scale program has proven to be an effective tool for improving the reading skills of students at Palmyra Primary School in Western Australia. The focus is on helping students – who are mainly in years 2 and 3 – develop and maintain increased levels of reading skill. This program was identified by the school as having the potential to help teachers meet students' needs as outlined in the Australian Curriculum, and to develop students' working knowledge of ICT as part of a holistic curriculum.

Teachers report that they are thrilled to witness the progress students have made after participating in the strategy, especially students who have struggled in the past.

Target student group

Palmyra Primary School is in the south-western suburbs of Perth, close to the city of Fremantle. It is a dynamic and inspiring school that caters for 385 students in years K–7 and has a committed and supportive community. The program focused on students in years 2 and 3.

Method

The Academy of READING program

Palmyra Primary School used the Academy of READING on-line program. This program aims to increase fluency and automaticity so that readers can attend to higher-level comprehension and reasoning. It acknowledges that each child is different and needs a balanced program with a combination of instructional components to build reading skills. The program uses a mastery learning approach, is individualised and provides positive, corrective and graphically presented feedback that motivates struggling readers. The teacher tracks progress using diagnostic data presented on the management system, and can control task difficulty to ensure that students experience success. Each student's diagnostic data provides useful information for the teacher, as well as for students, parents and school administration. The data is used with each student's classroom teaching and learning program. As well as structured learning in phonemic awareness, the program also incorporates phonics, fluency, vocabulary and comprehension. The program individualises instruction and provides age-appropriate content.

The program is designed to motivate students so that they maintain their focus and attention. Students become involved in their learning by knowing their strengths and practising those skills that require mastery. Each student needs to access the program for 20–30 minutes at least three times a week.

The school context

At Palmyra Primary School, local assessments of student performance and students' NAPLAN results indicated that the school needed to raise their expectations of student performance. The school also wanted to offer professional learning to teachers by introducing new ideas and research into literacy strategies. A school in regional Western Australia, East Narrogin Primary School, had successfully implemented the Academy of READING program. East Narrogin Primary School developed and implemented a whole-school literacy plan, which included the Academy of READING program as one of the key strategies. Due to the large number of students who reached Year 4 without basic foundation skills in reading, Palmyra Primary School had been searching for a computer program that provided individualised, systematic, direct instruction in phonics. The Academy of READING program was identified as the most suitable strategy for this cohort. Also, it provided the opportunity to develop distributed leadership opportunities for teachers. Once the decision was made, funding for the program was raised locally, as the program is managed through Rotary International. The school community rallied, with the support of a local Rotary Club, and as a result the school enrolled eligible students in the program at minimal cost to parents.

The decision to include parents in the cost of the program was not made lightly. However, it was considered important that it created a degree of ownership, as the school and teachers were keeping costs down by providing 'extras', including technical support. All of these aspects working together have the potential to keep the program alive in the future. High-quality headsets are an example of the program expenses.

The students

The target group for the initial implementation of the program were students who were making little progress in reading, based on diagnostic information from the Literacy Net and the use of available diagnostic tools, including previous NAPLAN data and teacher professional judgment. The group of students selected also included self-identified students who requested registration in the program. These students were included after discussion with parents, and further diagnostic assessments indicated they might benefit from consolidation of the foundation skills provided by the program.

Assessment of student performance also included:

- Academy of READING pre- and post-tests
- real-time monitoring as the program identified strengths and areas of need
- teacher assessment, eg running records
- students' NAPLAN results
- parent and student feedback
- the Neale Analysis of Reading Ability.

In 2011, the Academy of READING strategy was delivered to 35 students and five teachers at Palmyra Primary School (as well as to parents, who had varying degrees of involvement). A speech pathologist and home tutor who works privately with three of the students in the cohort reported that they have used the diagnostic data as part of their strategy delivery.

Results

The aim of the program is for students to develop fluency in foundation reading skills through focused training in phonemic awareness, sound–symbol association, phonics and decoding, and comprehension. Students work on an individualised program that targets their individual areas of need; as a result, teachers can use the data provided to focus on those areas.

Teachers, students and parents find the feedback provided by the program to be an invaluable source of information. Reports and feedback sent home are thorough and informative; parents are grateful for the information and the ability to log their child in at home, thus enhancing and improving their child's progress. Teachers report that they are thrilled to witness the progress that students make, especially students who have struggled in the past. Pre- and post-tests using the Neale Analysis of Reading Ability also showed students' improvement, although the results varied.

Teachers, administration and parents value this program, as they see the impact it is having on students' reading progress, and on their attitudes towards school and learning. The strategy is now part of the whole-school English plan, and other class teachers have come to see the worth of the program. The program has an embedded mathematics component, so it also supports students' reading and comprehension in numeracy. Teachers are now using the information obtained for instructional improvement, as well as for writing individual educational plans.

Also, some students gained insight into their own learning styles and shared their discoveries with others, actively encouraging and supporting other students. The children willingly engaged in the strategy, attending before-school training, as well as in-class training. Teachers have identified an increase in the number of parents requesting their children register for the program, and all of these parents have been prepared to fully fund their child's registration.

Lessons learned

Challenges the school has identified include the following:

1. Computers with high-speed Internet connection and quality sound reception must be available, with appropriate technical support.
2. Students need to be provided with their own high-quality headphones.
3. Allocation of time to a coordinator to implement and oversee the strategy needs to be established.
4. Teacher support, and recognising the need for extra time when establishing the strategy as students need to access the strategy at least three times a week to achieve desired results.
5. Parent support, as it is essential to engage parents so that they understand their role in encouraging their child.
6. Students need to be independent in their use of the computer and the program.

To date, data shows the successful use of the program in a variety of settings, including the home–school situation. The program can also be run by having the support teacher or Education Assistant withdraw students from class. Another school using this program has chosen to withdraw students. In this case, the principal of that school provides support for both the technology set-up and overall implementation of the strategy. The key to success in that school was that the class teacher remained in charge of the program for each student, even though they were withdrawn from class. The management system for the Academy of READING allows for monitoring the strategy at any time, which has enabled the program to work successfully.

Anecdotally, teachers from government and non-government schools and a private teacher who observed this strategy in action at Palmyra Primary School have since adopted the strategy for their own teaching. An experienced secondary school teacher using this strategy with year 8 and 9 boys commented on the relevance of this individualised strategy to the age-group cohort he teaches.

Embedding the strategy

Following a successful two-year trial period, the Academy of READING became part of the Palmyra Primary School's English plan in 2011. The program used an in-class approach rather than withdrawal, as this is the research-based preferred approach: it allows the classroom teacher to integrate the feedback from the Academy of READING into their own teaching program.

Research base

The Academy of READING program was implemented at Palmyra Primary School following successful implementation at East Narrogin Primary School. The program was adopted because it had been developed from extensive research and had been proven effective in schools in Canada. Its scientific base originated from neuroscience research for the development of decoding automaticity. As well as structured learning in phonemic awareness, the program also incorporated phonics, fluency, vocabulary and comprehension.

The diagnostic information generated by the program provides feedback for students, teachers, administration and parents. Research, including the Rowe Report *Teaching Reading* 🔗 *(2005)*, alerted the school to the importance of phonemic awareness as an essential foundation for children learning to read, and to the importance of positive feedback to students and teachers for guiding teaching and learning. The importance of involvement with home and school is also based on rigorous research, including John Hattie's *Visible Learning* 🔗 *(2008)*.

Further reading and links

Academy of READING school specialty 🔗.

Commonwealth of Australia, *The Literacy Net*.

Hattie J 2008, *Visible learning power point.*

Rowe K 2005, National inquiry into the teaching of literacy (Australia) 🔗.

Contacts

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