The Oral Language Supporting Early Literacy pilot study

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Summary

The Oral Language Supporting Early Literacy (OLSEL) research initiative was a pilot study supported by federal government funding. It was implemented in 2009–10 by the Catholic Education Council of Victoria (CECV) in eight schools in low-socioeconomic status (SES) communities across Victoria. The aim of this initiative was to improve the oral language skills of students in the early years, thereby resulting in a measurable improvement in literacy performance.

The OLSEL initiative sought to develop the oral language competence of students in the early years to facilitate their early literacy development. The goal of the research initiative was centred around professional learning to support teachers to more effectively plan and implement strategies that specifically targeted the development of oral language skills in the early years, with a particular focus on the first year of schooling.

The initiative was developed in response to the converging evidence that oral language competence is a significant variable in a child's early literacy outcomes. Evidence tells us that focused classroom teaching has achieved statistically and educationally significant gains in students' oral language, and has led to reading comprehension gains for students in the early years of schooling.

The provision of targeted, focused training to enhance teachers' professional understanding of oral language, its relationship to early reading achievement and the language demands of teaching and learning intentions, has been shown to have positive outcomes for students.

Rather than targeting writing, reading or spelling, this initiative was designed to determine the degree to which oral language was the key to unlocking students' abilities to perform at higher levels in the specific language modes. It was recognised that it was important to acknowledge the role of oral language competence in its own right because of its contribution to the formation and maintenance of interpersonal relationships, and because it enables the two-way exchange of ideas and needs in everyday contexts.

In the planning phase, it was agreed that, in return for a modest investment of teacher and school time, substantial gains were to be made in both the oral language and reading skills of children in the eight research schools that formed part of the study. The commitment from the schools involved in the study was for each school to set aside five days of professional learning over a 12-month period, and to hold a follow-up day in the subsequent year.
In addition to relatively high proportions of students receiving an education maintenance allowance (EMA), the study schools also had significant representation of students from language backgrounds other than English (LBOTE). Statistically and clinically significant treatment effects were found within and between groups as a consequence of the OLSEL intervention; this suggests that, in keeping with its robust psycholinguistic basis, the OLSEL approach should be effective for all learners, regardless of SES status. The ease with which teachers and school leadership staff embraced the OLSEL project is clearly evident in both the quantitative and qualitative data presented in this report. School staff rated the OLSEL professional development program as both interesting and immediately applicable in their classroom environments. A number of teachers commented on their inadequate prior preparation for promoting oral language competence in the classroom, and saw the knowledge and skills they acquired as a 'missing link' in their classroom practices. Given that the OLSEL intervention required only six days of teacher professional development, it stands to be a readily transferable approach.

The project team recognised that such value-adding provided the opportunity for students to strengthen their academic achievement, and to potentially avert some of the negative outcomes that accompany failure at school.

**Target student group**

In designing this initiative, it was acknowledged that the first three years of school represent a critical developmental window for making the transition from 'oracy' (speaking and listening) to 'literacy' (using and manipulating language in various forms), so these were the years of schooling identified for the study. The OLSEL initiative aimed to find out whether a strategic and explicit emphasis on early oral language competence in these years would have an effect on student outcomes in the immediate term and into the long term.

The schools selected for this initiative were schools in low-SES communities with ongoing concerns regarding general literacy development, as identified in the benchmark data. We designed a multi-stage sampling process, first asking for expressions of interest from schools, distributed by the CECV to low-SES schools across Victoria. This sample included metropolitan and regional schools, and eventually 14 schools were recruited, with another eight schools randomly selected for the intervention cluster. Six schools were allocated to the control cluster; the others formed the research cluster.
Later, explanatory statements and consent forms were distributed to parents and guardians of randomly selected students in order to recruit participants into the study. Those children who did not have consent from a parent or guardian still completed all classroom activities and assessments, but their data were not cited in the research findings.

The OLSEL project involved teams of early years teachers attending a series of professional learning days conducted over a two-year period. The goal of the professional learning program was to increase teacher capacity to effectively plan and implement strategies that specifically targeted the development of oral language skills in the early years of schooling, with a particular focus on the first year of schooling.

In order to further build school capacity, additional cluster meetings were held for school OLSEL leaders and principals, and the OLSEL lead teacher was fully sponsored to complete a masters level subject 'Oral Language Learning: The Primary Years' (EDUC 460735) at the University of Melbourne, convened by Dr John Munro. Teacher participation in professional learning to support the project consisted of 87 teachers from the research schools, with principals and literacy leaders participating in cluster meetings.

A total of 1145 prep (K) and year 1 students were involved across the eight research schools and six control schools, making a total of 14 schools. Given the numbers, it was not feasible to assess 1145 students on oral language and reading measures, as resources were limited as were the personnel who would be required to conduct the study. As a result, it was agreed to take a random sample of 602 students from the research schools. All early years teachers and students in the research schools participated in the project, but only the sample of 602 participated in the data collection and assessment phase.

Although students were representative of various groups in the community – for example, Aboriginal and ESL students, or those below the National Minimum Standards – no single group was specifically targeted by this initiative. The omission of year 3 was agreed because the first two groups represented the years that inform the year 3 NAPLAN test schedule, and which would therefore provide some reasonably quick feedback on the success of the initiative.
Method

A major component of the oral language subject that teachers were entitled to complete at Melbourne University involved conducting action research within their school context. Specific aims for the project were that teachers would implement increasingly targeted teaching strategies to facilitate oral language and early literacy development; use an evidence-based, action-research approach to classroom implementation; work in teams to further analyse the needs of students, and plan evidence-based interventions to be delivered both through the general curriculum provision and through targeted activities. Additionally, this meant that teachers should explore strategies for increased community participation and support through the provision of oral language and literacy activities adapted for use in the home context.

The assessment materials were selected based on an analysis of the relevant research pertaining to the elements of oral language that were correlated to literacy development. Standardised assessment tools were used for both the research and control groups, and probes for these interviews were developed through consultation with the research team. Teachers and school leaders from the research schools were provided with support to analyse the data and the implications for designing teaching and learning approaches for their student cohorts.

Teachers were also provided with a workshop and an Excel spreadsheet. These were to support them to calculate the effect of their teaching on student outcomes and measure the specific gains in student learning in literacy known as 'the effect sizes'. As part of the workshop, the theory regarding the use of these effect sizes, the basic mechanics of calculating effect sizes and their application in the analysis of student outcomes was also provided to participating research schools.

Various possibilities for sharing oral language strategies with parents were discussed during the professional learning sessions, but each school had the responsibility for interactions with parents of students at their schools over the course of the project. Parent information workshops were developed by the project officer as guides that could be used for an individual school’s planning. The parent information sessions were posted on the OLSEL website so that schools and parents could access the information and stay in touch with the project and its progress. Some parents provided feedback about the resources on the website to the research team via the OLSEL website, which was invaluable.

Focus groups were held at research schools, where feedback was sought from parents regarding their awareness of the importance of oral language and of strategies to support their children with the development of oral language skills.
Professional learning days were used to provide time for teachers, school principals, parents and caregivers to meet and be involved in the project, together with other time allocations agreed to in the initial planning. All teachers who attended the professional development days completed Likert-scale surveys relating to their perception of all elements of the professional learning and their overall perceptions of the project pre- and post-participation in the professional learning activities.

In the initial phase of the actual project, 20 teachers participated (n = 14 in research schools, and n = 6 in control schools).

Twenty-two teacher interviews were carried out at the outset (n = 14 in research schools and n = 6 in control schools), and 20 were repeated at the conclusion of the project (with the loss of two teachers from control schools who had moved elsewhere).

In October 2009, n = 47 teachers (from research sites) completed Likert scales to indicate their confidence in presenting and undertaking oral language activities in their classrooms, together with their perceptions of the impact of their school's participation in the process. Following attendance at the OLSEL professional learning program, staff teams in the eight research schools worked to develop implementation plans for their own school contexts.

The plans focused on the inclusion of oral language foci across the curriculum, but baseline assessments of students' oral language and reading abilities were carried out in April–May 2009, with the final post-intervention assessments of students' abilities in October–November 2010. Interim assessments were performed in February–March 2010, when teachers in research and control schools were asked to complete a brief questionnaire at each of the three data collection points across the study. This questionnaire used a Likert scale to seek teacher views and experiences about addressing children's oral language competence in the classroom. Teachers who participated in the professional learning completed a questionnaire related to knowledge acquisition (course content) at the end of each full-day session.

Two teachers in each study school were also asked to take part in an in-depth interview about their experiences addressing oral language competence in the classroom. This interview was recorded for later transcription and thematic analysis. Principals of the eight research schools were also asked to complete a brief one-on-one interview with a member of the research team at the conclusion of the project, in order for them to share their impressions about the OLSEL program, from both educational and organisational perspectives.
Results

The provision of targeted training for teachers focused on enhancing their professional understanding of oral language, its relationship to early reading achievement, and the language demands of teaching and learning interactions. Teachers also focused on how oral language has a highly significant impact on accelerating reading comprehension achievement for those early years students identified as developmentally vulnerable on measures such as the Australian Early Development Index (AEDI).

The evaluation report focused on the two large sub-groups derived from the initial sample of 1248 students who entered the study.

The first comprised the 489 students (from an initial pool of 577) who completed both pre- and post-measures concerning oral language and reading skills.

Findings pertaining to a further large subgroup (n = 568 across research and control schools) who received the reading progress test (RPT) at both pre- and post-intervention points – but no oral language assessments – were also considered. Results reported pertain to the subgroup of 577 students who initially underwent both reading and oral language testing. Just over 84 per cent (n = 489: research 246; control 243) of these students were retested at the conclusion of the project, so only 489 students had both pre- and post-project reading comprehension findings. Research supports the fact that focused classroom teaching achieved statistically and educationally significant gains in the students' oral language, as listed below:

- Oral language accounted for 28 per cent of variance in the early reading achievement of all students, 40 per cent of variance for LBOTE students and 38 per cent for students from low-SES backgrounds.
- Four elements of oral language ability were identified as contributing significantly to the development of reading comprehension for all student groups: receptive vocabulary; comprehension and use of longer and more complex sentences; phonemic and phonological awareness; awareness and use of the story grammar schema.
- Focused teaching of oral language in the early years led to statistically and educationally significant reading gains for students progressing from prep (K) to year 1 (OLSEL schools' effect size: $d = 1.22$; control schools' effect size: $d = 0.52$), as well as from year 1 to year 2 (OLSEL schools' effect size: $d = 0.93$; control schools' effect size: $d = 0.51$).
- Students from particularly disadvantaged backgrounds (i.e. those in receipt of EMA) showed significantly greater gains in reading outcomes.
- Accelerative language and reading gains were evident for LBOTE students.
• LBOTE students in the research schools achieved substantially stronger reading comprehension gains than their peers in the control schools, with the level of gain equivalent to 12 standard score points on the RPT.

• LBOTE students in the research schools achieved stronger reading comprehension gains (16.87 standard score points) than their non-LBOTE peers. The opposite finding occurred in the control school group.

• While the LBOTE students in the control schools achieved improved reading comprehension scores, their level of gain was less than their non–LBOTE peers (3.02 standard score points). This finding suggested that for the LBOTE students in the control schools, the gap in reading ability between them and their non–LBOTE peers was increasing over the period of the research project, not decreasing.

• Teachers and principals reported improvements in teacher knowledge and expertise, targeted teaching of oral language across all curriculum areas, and enhanced professional discussion and curriculum planning leading to enhanced student engagement.

• Parents reported an increased awareness of the links between oral language and literacy, and commented on their children's improved oral language competence.

Focused teaching of oral language in the early years led to statistically and educationally significant reading comprehension gains for students progressing from Prep (K) to year 1, as outlined below:

• $t = 5.29$, $p < .000$
• OLSEL schools' effect size: $d = 1.22$
• Control schools' effect size: $d = 0.52$, as well as from year 1–year 2 ($t = 4.30$, $p < .000$)
• OLSEL schools' effect size: $d = 0.93$
• Control schools' effect size: $d = 0.51$

Other results reported that accelerative language and reading gains were evident for Aboriginal students, LBOTE students and low-SES students. Additionally, teachers and principals reported improvements in teacher knowledge and expertise as a result of targeted teaching of oral language across all curriculum areas.

This gave support to the perception that targeted teaching enhanced professional discussion and curriculum planning, leading to enhanced student engagement. Parents reported an increased awareness of the links between oral language and literacy, and commented on their children's improved oral language competence, indicating the success of the initiative in engaging parents and caregivers.
The findings reported here lend support to existing evidence regarding the oral language basis for the transition to literacy and the importance of timely receipt of appropriate instruction methods (Catts, Fey, Zhang & Tomblin 1999; Dickenson, McCabe, Anastasopoulos, Peisner-Feinberg & Poe 2003; Freiberg et al. 2005; Greenfield Spira, Storch Bracken & Fischel 2005; Hay et al. 2007). Spira et al. make the important observation that:

‘[…] children's level of reading achievement is determined early in their school experience. […] By third grade, the level of reading ability that children have attained is likely to remain relatively stable; it is difficult to escape a pattern of failure that has lasted through a large part of elementary school’ (p. 233).

Key elements that contributed to the success of the project included the development of a teacher-focused professional learning program derived from a review of the relevant literature, and consultation with experts in the field carried out over six spaced days of learning: five days in the first year and one continuing contact day in the second year of the project. Successes derived also from the participation of teams of early learning years teachers from each school, and the involvement of school leadership in the initiative. A key member of each school team was also involved in credentialed study.

The study aided in the translation of the key information subsequently presented by school-based teams to help with planning, as informed by the profiles of their student cohorts.

The support available throughout the implementation phase from the Catholic Education Office (CEO) education officers and speech pathologists was critical, and the use of data to inform teaching practice and measure the success of the strategy in an objective way was also invaluable.

Finally, the development of the OLSEL website as a resource to support school implementation and the sharing of effective strategies meant that everyone had easy access to the strategies and feedback. This included parents, who could access the information to assist them at home. Some of these strategies included launching 'story time' in the school library – where parents of pre-school siblings could observe or participate while the teacher led children in an activity – or exploration of effective oral language strategies for parents to use while reading with their child at home. Of interest, Associate Professor Pamela Snow, School of Psychology and Psychiatry at Monash University, noted in her independent analysis of the project findings:

This pilot project was carried out in schools that were considered (on the basis of SES data) to be 'disadvantaged', yet there was significant parental involvement.
What is noteworthy in these findings is the evidence that this emphasis also permeated reading skills; therefore, it not only lends support to the methodology and approach employed here, but provides further theoretical support for the importance of reading instruction approaches that are psycho-linguistically sound. This then leads to employing approaches to instruction that build on evidence regarding the psycho-linguistic knowledge children need in order to make the transition to literacy, which include phonological processing and phonemic awareness.

Lessons learned

This initiative has attracted a lot of attention. There is currently cross-jurisdictional interest in it, and in the strategies used and developed.

There has also been international interest. Mental health professionals and speech and hearing specialists are also evaluating the effectiveness of the strategies employed in this initiative as an alternative means of addressing the needs of students requiring interventions (who have traditionally been assessed and managed on an individual basis).

The most pressing indicator of further research arising from this pilot is the need to follow-up the children who were in the OLSEL research schools, in order to examine their educational trajectories academically and, for example, their levels of school attachment, self-esteem and social connectedness relative to those who did not receive the intervention. OLSEL research schools continue to promote oral language across contexts. This has resulted in reports of improved NAPLAN results and – where schools have networked with municipal councils and local communities – greater engagement with the broader community and in the early years context. Smaller-scale projects have been implemented in Catholic and Department of Education schools and early childhood development in Victoria. Independent evaluator Dr Pamela Snow provided the following comments:

The fact that statistically and clinically significant treatment effects were found within and between groups as a consequence of the OLSEL intervention suggests that, in keeping with its robust psycholinguistic basis, the OLSEL approach should be effective for all learners, regardless of SES status.

The representation of Aboriginal children in the project was modest (reflecting in large part the geographical location of the study schools), however it is reasonable to hypothesise that such children will stand to derive particular benefit from this approach, given its developmental basis and the increased likelihood that such children may enter school without the oral language competencies in English that are required to make the transition to literacy via English-language instruction.
The ease with which teachers and school leadership staff embraced the OLSEL project is clearly evident in both the quantitative and qualitative data presented in this report. School staff rated the OLSEL Professional Development program as both interesting and immediately applicable in their classroom environments.

A number of teachers commented on their inadequate prior preparation for promoting oral language competence in the classroom, and saw the knowledge and skills they acquired as a 'missing link' in their classroom practices. Given that the OLSEL intervention required only six days of teacher professional development, it stands to be a readily transferable approach.

A number of factors should be considered alongside the apparent strengths and effectiveness of the OLSEL project, as outlined below:

- There was some unevenness at baseline with respect to the proportion of students from particularly disadvantaged backgrounds (as measured by receipt of EMA allowance), and this group should be a particular focus of future investigations, given growing interest in social marginalisation as both a precursor to – and an indicator of – early language difficulties.

- Because of the wide range of activities undertaken within and across the schools, it is not possible to determine from this pilot whether some activities are particularly valuable, while others have a lesser role to play in enhancing children's oral language competency and literacy skills.

- More refined analyses will be needed in the future to determine which activities should be emphasised, and which ones should be modified or even omitted from classroom activities specifically targeting oral language competency.

- While teachers' reports about their level of confidence in focusing on oral language skills in the classroom were pleasing, it must be noted that confidence and competence do not necessarily go hand-in-hand. In fact, confidence in the absence of competence can bode poorly for student outcomes and for teacher receptiveness to innovation in pedagogical practices.

- Future investigations should examine changes in teachers' theoretical orientation and skills, focusing on the extent to which changes are sustained and translated into altered classroom practices. In future studies, teacher impressions should be sought from research staff not aligned to the project, in order to ensure that social desirability bias in teacher reporting is minimised.

- Actual observations of classroom practice were not carried out in this study; however, these are important for determining the fidelity with which a new intervention is being implemented, and also afford opportunities to make observations of 'unexpected' phenomena, such as the way a child (or group of children) responds to a particular teaching approach.
The feedback from principals and teachers are significant indicators of the success of the interventions and of the pilot study, and will effectively inform future planning and potential for replication. Principals' comments included the following:

'Initially the theory was almost overwhelming; however, with appropriately targeted PD, support and time to experiment, trial and refine OLSEL strategies, the knowledge has evolved to an enhanced level. Our junior team has refined and expanded their repertoire of literacy teaching practices. We have explicitly refocused existing practices combined with new ideas. Synergy at its best!'

'All children have benefitted from the ICPALER (Ideas, Conventions, Purposes, Ability to Learn, Expressive and Receptive language)/OLSEL project. Statistical and anecdotal evidence suggests that the correlation between oral language and reading/writing is important to focus upon in our school.'

'The OLSEL journey has been challenging, frustrating, stimulating, invigorating and rejuvenating. It has affirmed and refined teaching praxis, directly empowering and supporting quality teaching and learning. All junior children have benefitted, and we are excited by the next challenge of embedding and sustaining OLSEL across our curriculum. I would strongly recommend CECV's systemic involvement in ongoing longitudinal action research, and I believe these learnings will eventually translate to pre-service teaching courses.'

'From the initial input of OLSEL, staff was immersed and experienced positive results in their classrooms. Professional learning teams have become more focused. Awareness has been raised in all staff of the importance of language, of children having the tools and being able to express themselves. Support through the project to the coordinator and to staff has been very effective and appropriate. Our results gave us reason to celebrate and challenge us to go further.'

Comments from OLSEL leaders:

'One of the most valuable PDs I have participated in and I really wish that it would be incorporated into student teacher's learnings. I feel confident with offering suggestions on what/how we could do things to improve oral language. Completing the study with Dr John Munro greatly reinforced my knowledge. Our learnings are embedded in the language we use and sustained through practice. We have developed workshops for parents, helping with practical tools.'

Qualitative feedback from teachers:

'My current level of confidence is much more advanced and I look forward to continuing to enhance and hone my skills/strategies to benefit my students.'

'I have found the strategies extremely helpful and have noticed a huge difference in the outcomes for students.'
'My knowledge about oral language has increased dramatically due to study of ICPALER, the OLSEL resource folder and the university subject. Each week an element of OLSEL is discussed, work samples compared, new ideas and websites explored.'

'Classrooms are more vibrant, children are more confident and children's vocabulary and comprehension have increased. Many more children express their opinions. We will continue with strategies we are already using, build resources and use some ideas from this latest PD day. We will continue to research and study the website and ICPALER folder regularly and improve parent sessions to keep them informed through newsletters, workshops and demonstration lessons.'

**Next steps**

The CEOs of Melbourne, Ballarat and Sandhurst have continued to offer professional learning in OLSEL for early years teachers, utilising their own budget sources. The program content has also been adapted and enhanced as a result of the knowledge gained from the project, and the resources to support school implementation are continuing to build. Where possible, resources have been added to the OLSEL website, so that past OLSEL schools can continue to access all resources. Vignettes of the video footage, taken at each of the professional learning sessions, is also available on the OLSEL website.

Educational support staff from the Melbourne, Ballarat, Sandhurst and Sale dioceses, as part of their day-to-day role, will continue to support OLSEL research schools with the implementation of OLSEL strategies. The research schools clearly identified the importance of sustaining the OLSEL approach within the early years, as well as facilitating the use of the strategies in the middle and senior years of their schools. Work has been done with OLSEL schools to support them in the ongoing collection of data to monitor student outcomes. Currently, CECV is awaiting approval for the development of a longitudinal study that will use NAPLAN data to follow up the effect of this 2009 initiative on the same students in years 3 and 5.

**Research base**

The professional learning program provided for participants was informed by relevant literature and key experts in the field. Both are readily located on the following links.

[www.myread.org/index.htm](http://www.myread.org/index.htm)
[www.myread.org/guide_cooperative.htm](http://www.myread.org/guide_cooperative.htm)
Further reading and links


Oral Language: Supporting Early Literacy (OLSEL), http://olsel.catholic.edu.au


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