



## **A study to investigate the impact of teacher led oral language promotion on child language, literacy and mental health.**

The Classroom Promotion of Oral Language Trial (CPOL) is built on 3 areas of policy-relevant research; (1) the importance of the early years of school (Prep to Grade 3) as an opportunity to shift children's developmental pathways, (2) the importance of teacher quality for children's academic outcomes and (3) the intrinsic relationship between oral language skills and future literacy, numeracy and social development.

### Early years of schooling:

It is well established that the early years of a child's life have a significant impact upon their entire life course. By the time children start primary school at around the age of 5, significant disparities in functioning are already evident across all developmental domains (CCCH & TICHR, 2007). Longitudinal research suggests that trajectories seem to be set very early in schooling with few developmental changes occurring regardless of socio-economic status (SES). Although there are a range of evidence-based approaches to address these disparities before children reach school, these opportunities also extend into the early years of schooling when brain development research tells us there is still sufficient malleability to make a substantive difference to educational and life outcomes. This time is also the first opportunity for a large-scale intervention being the first level of compulsory attendance associated with learning and development for all children.

### Teacher quality and academic outcomes:

The Grattan Institute report into school education highlighted the importance of quality teaching on student performance, both in the short and long-term as well as in redressing inequalities in education as a function of SES (Jensen, 2010). In this way, "*the success of most school improvement initiatives depends on how they affect teachers and the quality of teaching*" (Munro, 2010, p.10). It therefore follows that classroom practice must be embedded in research evidence if we are to emulate the best schooling systems in the world. Any efforts to improve literacy outcomes for school-aged children must explicitly address the capacity-building of teachers.

### Importance of oral language competence:

The ability to use oral language to communicate effectively is a key foundation for formal academic success as well as social and economic participation across the life-span (Munro, 2010). While learning to *speaking* is a task for which humans are generally considered to be biologically well-prepared (Berko Gleason, 1993), learning how to *read and write* requires specific instruction in order for proficiency to be achieved. Oral language includes not only expressive vocabulary (i.e. words), but also the grammatical rules and complex conventions that are intrinsic to the social and contextual aspects of communication (Tomblin, 2005). The development of oral language competence is therefore crucial to literacy development (including the ability to read, decode and comprehend text). The ability to communicate and use language effectively impacts upon the capacity of children to learn, on their social behaviour in the classroom, and on their ability to develop competent literacy, numeracy and communication skills (Chan & Dally, 2000). Children who do not master the basics of literacy in the early years of school are often ambivalent towards school, face long-term struggles and a range of behavioural and adjustment difficulties (Snow, 2009). It is also troubling that inequities in the proportion of children with language and literacy difficulties exist when comparing communities of lower and higher SES. Hay & Fielding-Barnsley (2009) found that in Queensland, 25% of the children in schools in low SES regions achieved below basic level competency on language benchmarks for their age, compared with only 8% in schools in middle SES regions and 0% in schools in high SES regions. In light of the growing body of evidence that shows long-term effects of inadequate oral language development in the early years, efforts to redress such inequities must be undertaken.

The reported high rates of language and communication difficulties at school entry would suggest that this is both an area in need of great attention and an immediate opportunity to effect change. For

example, Reilly et al. (2010) reported that 17% of Melbourne four year olds display various language and communication difficulties, and the inaugural Australian Early Development Index (AEDI) in 2009 reported language and cognitive skill vulnerability in at least 16% of Victorian children. Alongside this research is a converging set of policy interests across health and education that include the COAG Early Childhood Development Strategy, the National Action Plan on Mental Health, the National Partnership Agreement on Literacy and Numeracy and the establishment of the Australian Institute for Teaching and School Leadership (AITSL).

Despite the clear importance of oral language competence within the classroom instructional context, and the clear policy interest, there have been no published rigorous trials of oral language promotion demonstrating sustained changes in child outcomes and/or teacher practice. Therefore, this project aims to (1) determine the effectiveness (and cost effectiveness) of a teacher-led whole-of-class approach to promoting oral language (delivered in the first two years of school) on the oral language, literacy development and mental health of children by Grade 3, (2) determine whether a specifically designed teacher professional development program focussed on a whole-of-class approach to promoting oral language can lead to sustained change in teacher practice and (3) gain an in-depth understanding of the teacher and school level factors that both promote and inhibit the success of a whole-of-class approach to promoting oral language.

The project will be undertaken by a team of experienced investigators from the health and education disciplines through a unique collaboration between the University of Melbourne, Murdoch Childrens Research Institute, The Royal Children's Hospital Education Institute, Monash University, the Catholic Education Commission of Victoria and the Victorian Government Department of Education and Early Childhood Development. Specific investigators include:

<b>The University of Melbourne</b>	Associate Professor Sharon Goldfeld, Associate Professor John Munro and Dr Patricia Eadie
<b>Murdoch Childrens Research Institute</b>	Professor Frank Oberklaid and Dr Kate Lee
<b>The Royal Children's Hospital Education Institute</b>	Tony Barnett and Dr Liza Hopkins
<b>Monash University</b>	Associate Professor Pamela Snow
<b>Catholic Education Commission of Victoria (CECV)</b>	Judy Connell and Brenda Andersen-Dalheim
<b>Victorian Government Department of Education and Early Childhood Development (DEECD)</b>	Gail Inniss and Jenny Schenk
<b>Deakin University</b>	Associate Professor Lisa Gold

### Methods:

**Pilot data:** CPOL builds upon a rigorous pilot project conducted by the Catholic Education Commission of Victoria during 2009-10 known as Oral Language Supporting Early Literacy (OLSEL). The findings of this pilot study indicated that gains can be made in the oral language and reading skills of children in disadvantaged schools in the early years (Snow, 2011).

**Design:** CPOL is a cluster Randomised Controlled Trial (RCT) implemented over a 5-year study period. This is the most rigorous (yet still pragmatic) methodology available to determine the effectiveness of this intervention. Schools with greater than 10% of children developmentally vulnerable on the 2009 and/or 2012 AEDI results in the language and cognitive domains have been targeted for the study. We have estimated that approximately 33 clusters per arm, with an average of 17 children per cluster (i.e. class) will be required in order to measure a 23 point (0.3 standard deviation) difference in Year 3 National Assessment Program Literacy and Numeracy (NAPLAN) reading scores between control and intervention schools. Therefore in total 72 primary schools (one prep classroom per school) will be randomised across the Catholic and Government sectors across Victoria (see Figure 1). Schools will be stratified to ensure an adequate representation of metropolitan and rural study sites.

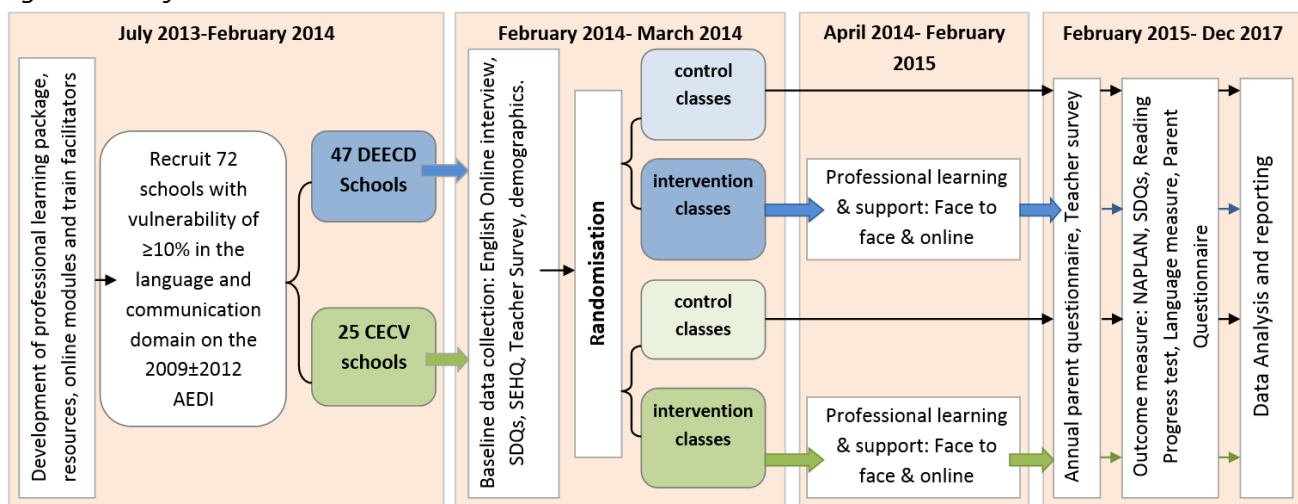
**Practice intervention:** The oral language promotion program builds on the OLSEL Pilot. The program includes both theoretical and practical aspects of promoting oral language competence within the classroom. The 2-year teacher professional practice intervention includes: (1) 4 face-to-face teacher professional development days delivered by language and literacy experts over one school year, (2) specialist teacher support within the school to build teacher capacity and facilitate change in teacher practice across two school years and (3) an online network of teachers creating a community-based approach to changing teaching practice.

**Outcome measures:** The primary outcome measures will be children's NAPLAN reading and numeracy test results, and the Strengths and Difficulties Questionnaire at Grade 3. Secondary outcomes, e.g. measures of impact on teacher practice and satisfaction will be developed. The cost-effectiveness of the program will also be established.

### Project significance:

The policy timing of this proposal is critical as highlighted by the establishment of AITSL, a key component of the COAG National Partnership on Improving Teacher Quality. As a first, AITSL developed National Professional Standards for teachers include the key areas of professional knowledge, professional practice and professional engagement. It is imperative that evidence-based professional learning for teachers is developed to support their progress across the AITSL standards. The professional learning for teachers proposed under this initiative will directly support teachers to enhance proficiency particularly across Standard 1: Know students and how they learn, Standard 2: Know the content and how to teach it, and Standard 3: Plan for and implement effective teaching and learning. Building on this policy direction, this project will determine the effectiveness of this approach on *student learning* and *mental health outcomes*.

Figure 1: Project timeline and flow



### Innovation

This study is highly innovative with novel approaches to professional development and to study design. It is the first of its kind to directly assess the pre and post teacher training effects on the children's literacy skills and mental health functioning.

The study team brings expertise in paediatric health, speech pathology, psychology, public health and education as well as an unrivalled network of schools in which to undertake the program in a rigorously controlled (cluster randomised) trial. Throughout the study, teachers will have ongoing support through the implementation of innovative online resources and forums, plus face-to-face support where needed to support the change in practice, which is not currently available. In addition to the classroom-based innovation is the design itself. There are almost no Randomised Controlled Trials of education-based interventions in the Australian (and indeed international literature), and certainly none that have included a cost effectiveness analysis. In order to facilitate further studies of this rigorous nature almost all data collection for the study will utilise existing administrative or class based data, thus minimising costs and teacher impost. Therefore, if successful, this study will (1) fundamentally change the approach to the teaching of language and literacy in the early years of schools (2) open the opportunities for similar trials to rigorously test the effectiveness of practice change within education and (3) provide opportunities to minimise the disadvantage for children that is associated with poorer language and literacy skills.

### CPOL Update – Term 4 2014

The project commenced July 2013. Schools have been selected and randomised to intervention and control arms of the study, index teachers have been randomly selected, and consent has been obtained from students' parents.

Baseline data have been collected for both teachers and students, and three of the four teacher professional learning days have been held throughout 2014. As a part of the intervention collection of teacher practice audio recordings and reflections has commenced. Now in Term 4 of 2014, we are collecting another two audio recordings which are teacher practice secondary outcome measures across the control and intervention groups. Term 4 will also see the completion of a teacher survey, similar to that which was disseminated in Term 1 to all index teachers during baseline data collection.

	<b>CECV</b>	<b>DEECD</b>	<b>Total</b>
<b>Total number of CPOL schools</b>	25	47	<b>72</b>
<b>Total CPOL students</b>	503	866	<b>1369</b>
<b>Total CPOL index teachers</b>	27	49	<b>76</b>

### References

- Berko Gleason, J. (1993). *The Development of Language* (3rd Ed.). New York: McMillan.
- Centre for Community Child Health, & Telethon Institute for Child Health Research. (2007). Australian Early Development Index - Building better communities for children. Canberra, ACT: Commonwealth of Australia.
- Chan, L., & Dally, K. (2000). Review of the Literature. In W. Loudon, L. Chan, J. Elkins, D. Greaves, H. House, M. Milton, S. Nichols, J. Rivalland, M. Rohl & C. Van Kraayenoord (Eds.), *Mapping the Territory: Primary Students with Learning Difficulties: Literacy and Numeracy* (pp. 161-331). Canberra: Department of Education, Training & Youth Affairs.
- Hay, I., & Fielding-Barnsley, R. (2009). Competencies that underpin children's transition into early literacy. *Australian Journal of Language and Literacy*, 32(2), 148-162.
- Jensen B. (2010). *What teachers want: Better teacher management*. Melbourne: Grattan Institute.
- Munro J. (2010). *Oral language*. Melbourne: The University of Melbourne.
- Reilly, S., Wake, M., Ukoumunne, O., Bavin, E., Prior, M., Cini, E., Conway, L., Eadie, P., & Bretherton, L. (2010). Predicting language outcomes at 4 years of age: findings from Early Language in Victoria study. *Pediatrics*, 126(6), 1530-1537. doi: DOI: 10.1542/peds.2010-0254.
- Snow, P. (2009). Oral language competence and equity of access to education and health. In K. Bryan (Ed.), *Communication in Healthcare* (pp. 101-134). Bern: Peter Lang European Academic Publishers.
- Snow, P. (2011). Oral Language Supporting Early Literacy: Evaluation Report on the Catholic Education Commission of Victoria's Literacy and Numeracy in Low SES Communities Pilot Project. Melbourne: Monash University.
- Tomblin, B. (Ed.). (2005). *Literacy as an outcome of language development and its impact on children's psychosocial and emotional development*. Montreal, Quebec: Centre of Excellence for Early Childhood Development.