

# Research Snapshot

Summarising findings and their implications



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## Late talking: can it predict later language difficulties?

Learning to talk and to understand language is one of the most important skills a child develops in the pre-school years. Language helps children develop social skills, negotiate new experiences and situations, and is the foundation upon which other learning is based. We know that children who have a language difficulty when they are five years or older are more likely to have trouble with reading, spelling and mathematics, and may struggle to complete school and find work.

There is clear benefit therefore in being able to understand, treat and prevent language difficulties. Children who are slow to start talking (often called 'late talkers') are of particular interest, as some clinicians and researchers believe that early spoken language may predict later language skills.

There are many definitions of late talking. Most focus on a child's 'expressive language' (what they say) when they are around two years old rather than their 'receptive language' (what they understand). One of the most common tools for measuring late talking is the Words and Sentences Form of the MacArthur Communicative Development Inventories (CDI). This tool asks parents to record on a checklist which words their child uses spontaneously, and whether they combine words to make phrases. According to the CDI, a child is a late talker if, at two years old, they:

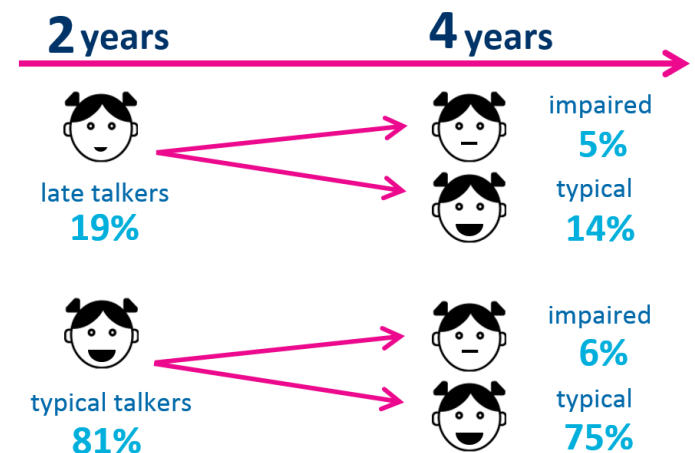
- have fewer than 50 words in their spoken vocabulary
- use no words in combination, or
- achieve a score equivalent to children in the bottom 10 per cent of the CDI assessment sample.

### Aims

Most studies of language difficulties have focused on children with a diagnosed difficulty, meaning that any analysis of the impact of their language learning environment and their particular developmental pathway is retrospective. Subsequently, these results are possibly not representative of all children at a particular age.

The Early Language in Victoria Study sought to address this by tracking language development during the critical

## Language pathways between two and four years



'Girl' graphic courtesy of Peacock Dream, The Noun Project

developmental window of 0-5 years and before any clinical problems emerged. Among other things, the study wanted to determine:

- How many children are late talkers at two years of age?
- What family, child or environmental factors are associated with late talking?
- How many late talkers go on to have language difficulties at four years of age?

### Key findings

The study has now monitored the language development of 1,910 Victorian children using a combination of parent surveys and standardised language assessments.

It found that at two years of age:

- The average spoken vocabulary size was 261 words.
- There was large variation in the number of words spoken (some children spoke 600 words and others none at all).
- Girls tended to use more words than boys (an average of 288 words compared to 235).
- 17 per cent of children used no word combinations.

Partners:



# “Late talking is not a reliable indicator of later language difficulties.”



- Around 14 per cent spoke few words and used no word combinations.
- Around 19 per cent of the sample achieved a score equivalent to children in the bottom 10 per cent of the CDI sample and were therefore considered ‘late talkers’ by this study.

At four years of age:

- Almost 70 per cent of children who were considered late talkers at two years of age now had a typical level of language.
- Almost 8 per cent of children who were considered typical talkers at two years of age now had a low level of language.

Late talking did not seem to be associated with any particular family, child or environmental factors.

## Implications

### For policy and practice

#### **Late talking is not a reliable indicator of later language difficulties.**

The results of the study show that many late talkers catch up by four years of age. In fact, fewer than 30 per cent of the two year olds who were late to start talking still had a language delay at four. The high rate of variability during this time means that it would be inaccurate to use late talking as a diagnostic measure and inefficient to use it as the basis of treatment or intervention programs. Late talking may be indicative of broader developmental difficulties and so should be considered alongside other aspects of the child’s development, including their receptive language skills, social interaction and cognitive skills. However, where such additional difficulties are not present the outlook for language development is likely to be positive.

#### **There is a natural variation in the emergence of early language skills.**

While some four year olds with language problems were late to start talking, this was not always the case. There appears to be large natural variation in the rate at which a child’s language develops. This means that sometimes it may only be possible to identify a language impairment after a child turns four.

### For research

#### **There is value in being able to accurately identify which children will have persistent language impairment.**

Given the variability in childhood language development, early detection of children who will develop language impairments later on may not be possible using current methods of identification, such as late talking. Research that identifies and tests other ways to predict later language impairment would be of significant benefit to health and education professionals trying to prevent and successfully treat these conditions.

## Study details

In 2003, maternal and child health nurses invited families to join the Early Language in Victoria Study when their child came in for their routine well-child check-up at eight months of age. Around 80 per cent of Victorian babies attend this check-up and the nurses were able to recruit 1,910 children. Children were recruited from six local government areas in metropolitan Melbourne that represent a mix of socioeconomic status. At recruitment, parents completed a survey about family demographics and their child’s language and speech development. Parents then completed another survey each year for eight years around their child’s birthday. These surveys covered a broad range of language and developmental areas. In addition, when the children were one, four, five and seven years old, a trained research assistant conducted face-to-face language assessments with the child in their local maternal and child health centre, home or school. The study will follow these same children until they turn 13 in 2015.

## Suggested citation

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### Published article details

Reilly, S., Wake, M., Bavin, E.L., Prior, M., Williams, J., Bretherton, L., Eadie, P., Barrett, Y., Ukoumunne, O.C. (2007) Predicting language at 2 years of age: A Prospective Community Study. *Pediatrics*, 120(6): e1441-e1449

Reilly S., Bavin E., Bretherton L., Conway L., Eadie P., Cini E., Prior M., Ukoumunne O., Wake M. (2009) The Early Language in Victoria Study (ELVS): a prospective, longitudinal study of communication skills and expressive vocabulary development at 8, 12 and 24 months. *International Journal of Speech Language Pathology*, 11(5): 344-357.

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 the Early Language in Victoria Study. *Pediatrics*, 126(6): E1530-E1537.

## About us

The Centre of Research Excellence in Child Language is a collaboration of child language experts. It uses the latest approaches in molecular genetics, neuro-imaging, epidemiology, biostatistics and health economics to investigate factors that affect and improve child language and development.

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