

How Does Home Reading Support School Improvement?

What Does The Science Tell Us?

- As parents are 'a child's first and most important teachers', the quality of cognitive stimulation in the home, especially before school entry, strongly influences achievement outcomes.
- The quality of cognitive stimulation and nurturing during early childhood impacts language acquisition, and children are highly vulnerable to disparities during this time, particularly in relation to spoken language, access to toys and books, and constructive parent-child engagement.
- Children's books are catalysts for parent-child engagement during sensitive developmental stages when brain growth and plasticity are maximal, in the first few years of life. They provide broader, more grammatically correct vocabulary and range of subject matter than everyday conversation.
- Reading does not come naturally to the brain, it is not genetically programmed like vision or spoken language (standard features), it is an optional extra. New circuits and pathways in the brain have to be created, which requires hundreds if not thousands of times of exposure to letters and words.
- Reading depends on the brain's ability to connect and integrate various sources of information, specifically visual with auditory, linguistic and conceptual areas.
- One particular area of the brain that is a hub for semantic processing, understanding word meaning and vocabulary has been shown to have more robust activation in the brains of 3-5 year olds as a result of listening to stories in the early years, and resulted in higher reading scores at age 11.
- While listening to stories, children with greater home reading exposure showed significantly higher activation in areas within the left-sided multimodal association cortex, which facilitates mental imagery and extraction of meaning (semantic processing). Critical for oral language, this region is later integrated into the reading network.

Why is Home Reading Important?

- Teachers can only do so much, which is where a quality home reading program comes in.
- There is a consistent connection between time spent reading per day and reading growth.
- Frequent high-quality reading practice may help children compensate for-and even overcome-challenges of being socially or economically disadvantaged, while a lack of reading practice may erase or potentially reverse the advantages of a more privileged background.
- Vocabulary plays a critical role in reading achievement. Research has shown that more than half the variance in students reading comprehension scores can be explained by the depth and breadth of their vocabulary knowledge.
- Between Kindergarten and Year 12, students with an average daily reading time of 30+ minutes are projected to encounter 13.7 million words. Their peers who averaged less than 15 mins of reading per day are likely to be exposed to only 1.5 million words. The difference is more than 12 million words! Students who average between 15-29 minutes of reading per day will encounter an average of 5.7 million words-less than half the high-reading group but nearly four times that of the low-reading group.
- Data shows that students who struggle initially but then begin to dedicate significant time to reading with high literal comprehension can experience accelerated growth during the school year.
- 15 minutes seems to be the 'magic number' at which students start seeing substantial positive gains in reading achievement; students who read just over half an hour to an hour per day see the greatest gains of all.
- Over the course of a student's education, yearly reading gains typically decrease as they move through the grades, which is a normal pattern for cognitive development. What is unusual is the steep drop in reading gains between Years 5 and 6, predicted to occur because students stop independently reading books within the text complexity of their grade.

What About Reading Aloud To Young Children

- Reading regularly to young children stimulates optimal patterns of brain development and strengthens parent-child relationships at a critical time in child development, which, in turn, builds language, literacy and social-emotional skills that last a lifetime.
- Reading aloud to young children has been found to increase the richness of the vocabulary to which they are exposed as well as the complexity of syntax.
- The 'ideal lap' experience provides most of the pre-cursors for reading and emotional development in children. As soon as a child sits on a care giver's lap the child learns to associate the act of reading with a sense of safety and being loved. Happy hormones are released which help the brain to process what the senses are taking in.
- While the child is looking at colourful pictures and listening to stories they are learning gradually that lines on a page make letters, letters make words, words make stories and stories can be read again and again. They learn that everything has a name, and are banking a vocabulary of words and meanings which will enhance decoding. They start to understand pictures and visual images, developing their attention and conceptual systems, while helping the brain to bolt on the reading circuits.
- When children hear stories they are also developing emotional responses, learning about other points of view, developing empathy, learning appropriate behaviour and exploring feelings.

Research

Home Reading Environment and Brain Activation in Preschool Children Listening to Stories (Paediatrics; Official Journal of the American Academy of Paediatrics)

Policy Statement Literacy Promotion: An Essential Component of Primary Care Paediatric Practice (Paediatrics; Official Journal of the American Academy of Paediatrics)

Renaissance Accelerated Growth: Education Leader's Guide to Reading Growth (7 part series)

