



# The emergent literacy skills of preschoolers on the autism spectrum

## Executive Summary

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## EXECUTIVE SUMMARY

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## The Cooperative Research Centre for Living with Autism (Autism CRC)

The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national, cooperative research effort focused on autism. Taking a whole of life approach to autism focusing on diagnosis, education and adult life, Autism CRC researchers are working with end-users to provide evidence-based outcomes which can be translated into practical solutions for governments, service providers, education and health professionals, families and people with autism.

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## PURPOSE OF THE STUDY

It is estimated that between 30 – 60% of school-age children on the autism spectrum struggle with reading. In response to the striking lack of research examining early or emerging literacy development in children with autism, our overall objective in this study was to identify and measure factors that predict emergent literacy skills in children on the autism spectrum before they transition to school.

## AIM OF THIS STUDY

The aim of this study was to describe the emergent literacy skills of preschool children with autism, prior to school entry. We also wanted to find out how factors such as home literacy environment, autism symptomology, age, and general oral language skills are related to children's emergent literacy performance.

## STUDY DESCRIPTION

This research involved a cross-sectional cohort study. A total of 60 children on the spectrum were recruited of whom 57 met our inclusion criteria: (a) children had received a written clinical diagnosis of autism spectrum disorder in the community, sighted by the research team, (b) children were at least 4 years of age and had not yet started formal schooling, (c) children spoke in short sentences, (d) children were able to participate in preschool type activities such as pointing at pictures and following simple commands, and (e) children obtained a score of 11 or higher on the SCQ-Lifetime version (which determines autism severity).

Children participated in a range of tasks tapping print-related and meaning-related emergent literacy skills. The tasks were generally administered over two sessions with an unfamiliar speech pathologist/research assistant, using a standard set of materials.

## DATA ANALYSIS

Data were analysed to investigate correlations between home literacy environment, cognitive ability, autism severity and oral language ability and children's performance on the emergent literacy tasks. Regression analyses were performed to further investigate the predictors of emergent literacy performance.

## SUMMARY OF FINDINGS

Overall, our assessment battery of emergent literacy tasks was successful in eliciting responses from a group of 4- and 5-year-old preschool children on the autism spectrum. It should be noted, that consistent with our eligibility criteria, only children who spoke in short phrases and were able to participate in preschool-type activities took part in the study.

Results from this study showed that the preschool participants on the autism spectrum showed relative strengths in print-related skills, such as alphabet knowledge (letter names and sounds) and early phonological awareness, but relative weaknesses in meaning-related emergent literacy skills, particularly story retelling and comprehension ability.

There were no significant correlations between socio-economic status, home literacy environment or autism severity and emergent literacy performance, except for letter name knowledge. Notably, children who presented with more severe autism symptoms (as measured by the SCQ) performed better on the letter name knowledge task. However, it should be noted that most parents created a relatively rich home literacy environment.

As expected, significant correlations were found between children's nonverbal cognitive ability and oral language performance and emergent literacy performance. In other words, children with better cognitive and oral language skills performed better on tasks measuring emergent literacy skills.

The only significant individual predictor of print-related emergent literacy (when performance on all print-related tasks was combined) was children's performance on the PPVT (measuring receptive vocabulary). Significant individual predictors of meaning-related literacy (combining all meaning-related tasks) included nonverbal cognitive ability, oral language performance, and autism severity.