

# Future Science Direction and Pathways to Impact: *early childhood learning*

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# THANK YOU!

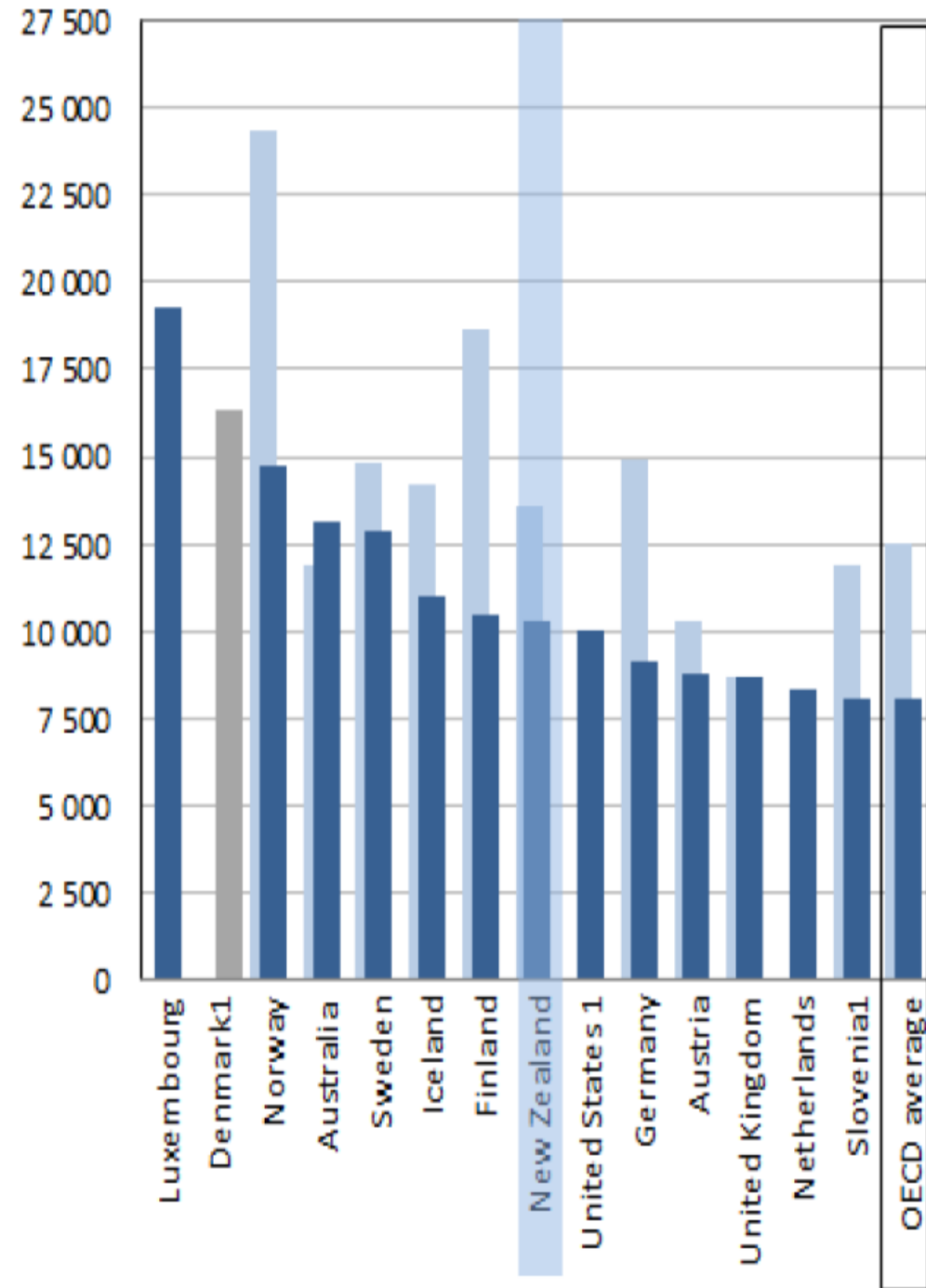


# Early Childhood Education (ECE)

- Formal early-care settings for children prior to formal education entry (0-5)
  - Home-based care
  - Center-based care
- One of the best financial investments for child (and family) well-being
- Early opportunity to build strong school-home connections

# Strengths of the New Zealand context

- High level of financial investment in early education programs
- High participation rates for children 3- to 5-years old
- Mandatory curriculum in place with strong emphasis on equity and diversity



# Current Science Directions

## *International Perspective*

- √ Ensuring the **quality** of these settings
- √ Supporting the **work-force**
- √ Development of **'academic'** and **'social-emotional'** potential

# Current Science Directions

## *ensuring the quality of these settings*

- How to ensure that valid measures of quality are used to regulate
- How to maintain quality when scaling ECE programs
- How to create diverse classroom settings (ethnicity, language, age...)



# Current Science Directions *supporting the workforce*

- How to increase the wages and respect for early educators
- How to ensure they have the knowledge to be effective
- How to support their use of evidence-based practices

Schools

## The Effects of Training Phonological, Semantic, and Syntactic Processing Skills in Spoken Language on Reading Ability

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**ABSTRACT.** The efficacy of a program designed to remediate the spoken language deficits of students with specific reading disability was evaluated. The study investigated the learning of program content and the effects of training spoken language on reading accuracy and reading comprehension ability. The program consisted of two parts: one providing explicit instruction in phonological processing skills and the other providing training in semantic-syntactic skills. Ten students, aged between 10-12 years, who had demonstrated severe difficulties on written and higher-level spoken language tasks during the 2 years before the current study, participated in the intervention program. Subjects were randomly divided into two groups. Group 1 received the phonological training program first followed by the semantic-syntactic training program, and Group 2 received the programs in the reverse order. Subjects were trained for 12 hours over a 6-week period on each of the programs in their regular school environment. Results indicated that the phonological and semantic-syntactic deficits of students with specific reading disability can be remediated successfully. Improvement in these skills had significant positive effects on reading accuracy and comprehension performance. Training in phonological processing skills had a greater impact on reading accuracy than training in semantic-syntactic skills, but both programs contributed to improved reading comprehension ability. Results are discussed in terms of current theories of reading disability and implications for speech-language pathologists are addressed.

**KEY WORDS:** phonology, semantics, syntax, reading disability, intervention

**S**pecific reading disability, or dyslexia, has been defined recently as a developmental language disorder whose prominent characteristics are deficiencies in spoken and written language (Kamhi, 1992). Such a definition reflects the growing body of evidence implicating difficulties in spoken language as contributing factors to reading disorder. However, although research attention has focused on the association between spoken language difficulties and reading disorder for the last few decades, it has only been in recent years that well-controlled studies have reported on the effects of training aspects of spoken language on reading disability (Lovett, 1991). Results from intervention studies can greatly enhance our understanding of the nature of specific reading disability both from a theoretical as well as an educational viewpoint.

Most of the recent training studies have focused on the area of spoken language that taps phonological processing ability (i.e., the students' knowledge of the sound structure of spoken language, which also is referred to in the literature as phonological awareness skills). This reflects the researchers' theoretical view that differences in phonological processing skills can, to a large extent, explain variances in reading ability (e.g., Wagner & Torgesen, 1987, review the role of phonological processing in the acquisition of reading skills). Research suggests that training in phonemic awareness skills, particularly the phoneme segmentation skills of kindergarten age children, can improve early reading performance (Ball & Blachman, 1988). However, results from studies using older subject groups of severely impaired readers are less conclusive about the positive benefits of phonological awareness training. Vellutino and Scanlon (1987) investigated the importance for reading acquisition of whole word naming versus phonemic segmentation training for sixth grade

## Current Science Directions

### Development of **academic and social-emotional** potential

- Ongoing data collection to identify areas of success and need
- Evidence-based curricula with long-term effects across domains





# Pathways To Impact... My Two Cents

- ① Ensure that high-quality, equitable ECE is accessible to all young children, as part of A Better Start
- ② Improve investing interventions rather than making new ones, and focus on implementation (e.g., home supports)

THANK YOU!