

## Language Screening in Elementary Schools

### What is a language screen, and why is it important?

Universal screening for reading difficulty, a key element in MTSS frameworks, is frequently mandated in schools (Adlof et al., 2017). Students in kindergarten are typically screened using phonological awareness or letter names and sounds measures. Routine use of oral-language screens is not common practice, despite its foundational role in reading achievement. According to the simple view of reading, both word decoding and language comprehension are necessary for effective reading.

While early reading is often constrained by decoding abilities, as children progress, their reading comprehension increasingly relies on their oral language skills. Therefore, addressing language comprehension alongside word reading from the start of formal schooling is crucial for developing strong reading abilities (Adlof & Hogan, 2019).

We report here on the use of a kindergarten, whole-class language screen (Adlof et al., 2017; Hendricks

et al., 2019) administered by teachers across three school districts in Alberta, Canada. This includes an urban district (population 1.5 million), a suburban/rural district (population 67,000), and a remote district (population 3,992). We compare how this screen performs in each of these districts.

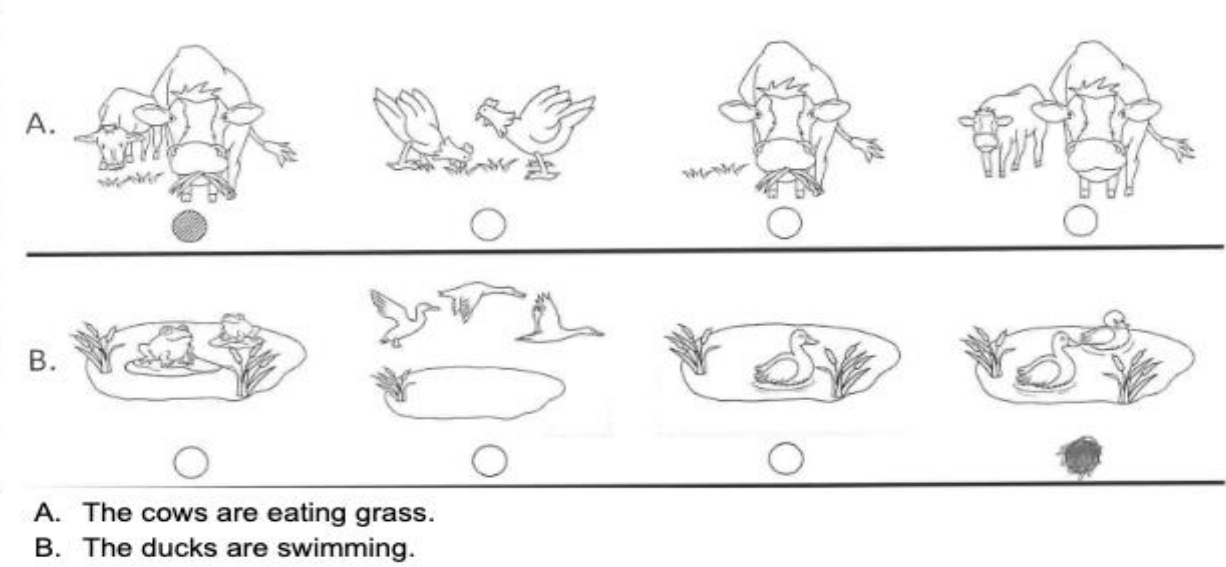
Site	Student Population Screened
Suburban/Rural	311
Remote	63
Urban	176

## Research Goals

To describe performance on the language screen by kindergarten students in three Alberta sites.

## Method

In 2024, teachers administered a classroom language screen to entire kindergarten classes. The screening tool included two practice items and 21 test items that evaluated students' understanding of various grammatical structures, such as plurals, negation, reversible sentences, passives, and relative clauses. The screen used a limited vocabulary of simple nouns, verbs, and adjectives familiar to young children. Each student received a paper booklet containing response options, with each item displaying four black-and-white line drawings and a corresponding open circle below. Students were instructed to listen to the examiner's sentence and then color in the circle that best matched the sentence. To prevent copying, four different versions of the screen were used, with response options arranged in different orders (Kohel et al., 2024).



## Results

### Consistent Items:

The first 12 items in the chart scored above 70% and certain items, 17, 21, 3, 6, 15 and 12 show relatively similar performance across all three sites, indicating that these items function more consistently for kindergarten students regardless of location.

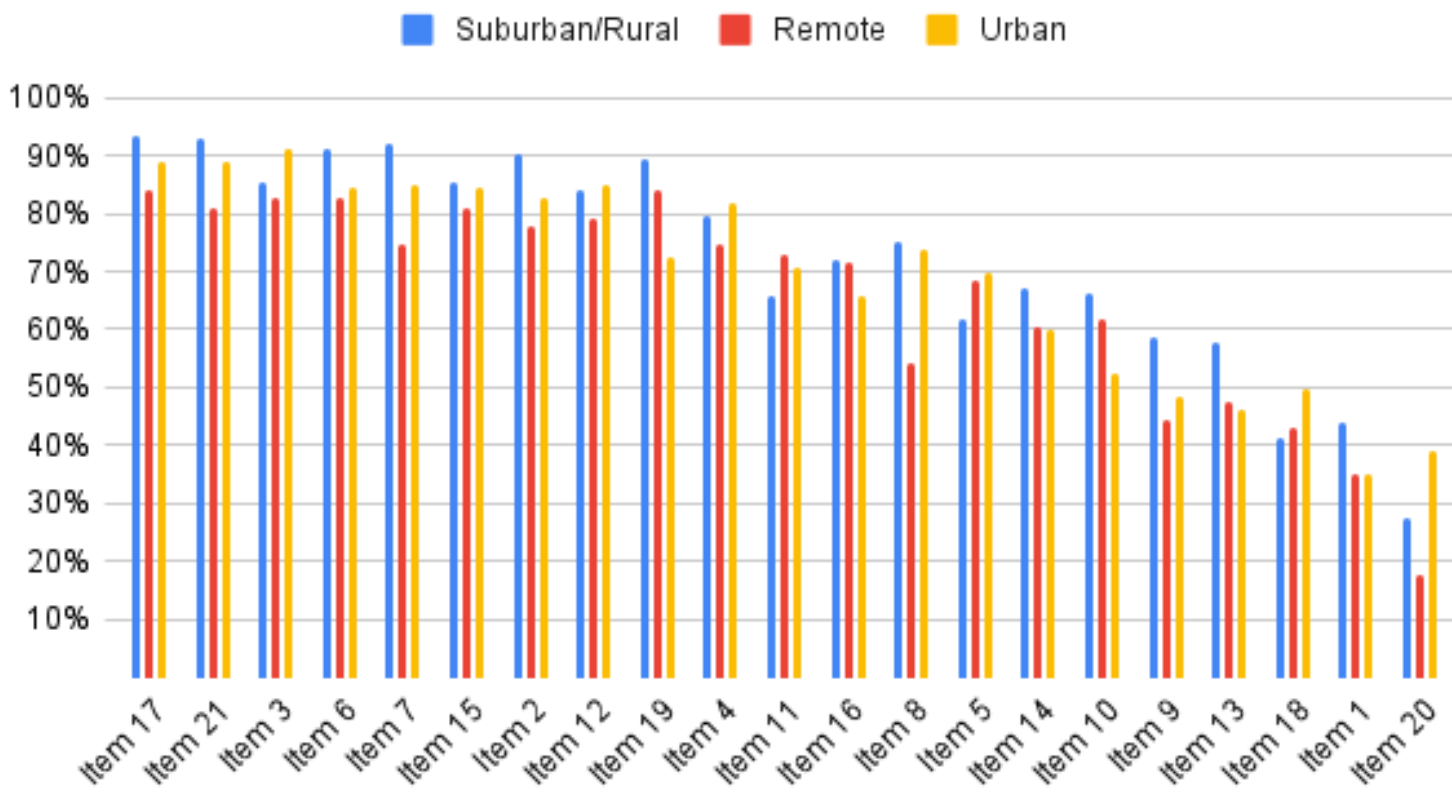
### Variability in Performance:

The last 5 items on the chart (9, 13, 18, 1 and 20) scored relatively lower indicating overall these items may have been more difficult for kindergarten students regardless of location. Items such as 7, 8, 10, 9, 13, 18, 1 and 20 display greater variability, with a more significant drop in performance, particularly for the Urban and Remote sites. This suggests that these items may not be as universally effective or may not be equally understood across different locations.

## Discussion

While some items function similarly across all sites, others show differences in performance, indicating that location-specific factors might influence how well kindergarten students engage with or understand these items. The variability in percentages highlights that the item function is not uniform across these sites, which may necessitate adjustments or targeted interventions depending on the location.

### Item Function for Kindergarten Students



## Insights/what I have learned

Quantitative research is essential for evaluating and comparing educational tools by analyzing numerical data. It helps assess the consistency and effectiveness of tools like language screenings across different settings, identifying trends and site-specific differences. This ensures reliable detection of students' needs and informs targeted interventions.

Language Screening is crucial for early identification of language delays, impacting academic success, social integration, and long-term outcomes like education, employment, and mental health.

The importance of Early Intervention reinforces the need for early identification and intervention, particularly in at-risk communities, to improve children's academic and social outcomes.

## Independent Learning Around Science of Reading

### What is the Science of Reading (SoR), and why is it important?

The Science of Reading is a comprehensive, interdisciplinary field that explores how students develop reading skills, grounded in over fifty years of research and supported by the Simple View of Reading (Gough & Tunmer, 1986). It covers key areas such as phonological and phonemic awareness, phonics, word recognition, fluency, vocabulary, and comprehension, emphasizing the importance of

culturally and linguistically relevant texts. This research-driven approach not only enhances instructional strategies and student outcomes but also addresses reading difficulties (The Reading League, 2022). The significance of the Science of Reading extends beyond education, as proficient reading skills are crucial for knowledge acquisition, cultural participation, and economic success. Despite

advancements, a notable percentage of students in developed countries still struggle with reading, underscoring the need for effective literacy instruction to improve long-term success and economic mobility (Castles et al., 2018).

## Research Goals

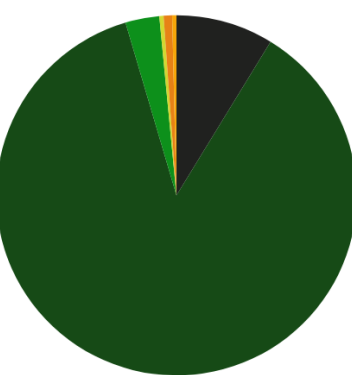
The purpose of this study is to investigate the extent to which knowledge of the Science of Reading (SoR) is derived from different sources, including post-secondary education (Bachelor of Education versus Graduate programs), professional development, and self-study. By comparing these sources, the study aims to understand how various educational experiences contribute to educators' comprehension and application of SoR principles.

## Method

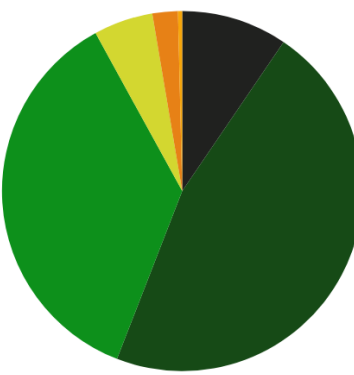
A total of 264 teachers, who were recruited via social media platforms, participated in an online survey comprised of 20 questions to assess their knowledge of the Science of Reading (SoR). One key question queried the sources from which teachers have acquired their knowledge of SoR, offering options such as Bachelor of Education (BEd), Graduate Degree Program, Required Professional Development (PD) or in-service training, or self-study. Participants rated how much of their knowledge of SoR has come from each educational option on a linear scale ranging from:

■ N/A ■ None of It ■ Some of It  
■ Half of It ■ Most of It ■ All of It

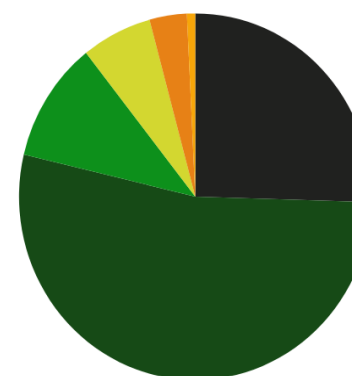
## Results



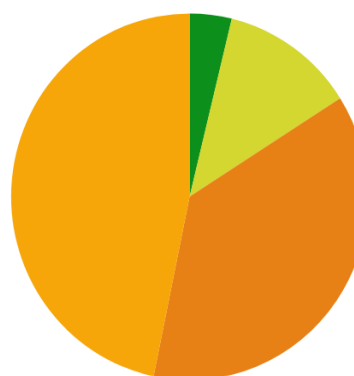
BACHELOR  
OF  
EDUCATION



REQUIRED  
PD OR  
INSERVICE



GRADUATE  
DEGREE  
PROGRAM



SELF-  
STUDY

## Results

### Bachelor of Education (BEd):

The majority of respondents reported that their knowledge of SoR from their BEd program was minimal. Specifically, 228 out of 262 respondents (87%) indicated that their knowledge from this source was either none or only some of what they know about SoR. Only 1% of respondents felt that their BEd contributed most or all of their knowledge on the subject.

### Graduate Degree:

Knowledge from Graduate Degree programs shows a broader distribution. While 140 respondents (53%) reported that their knowledge from this source was minimal (none or some), a notable number (28%) indicated that it contributed half or more of their knowledge on SoR. This suggests that Graduate Degree programs may play a more significant role in providing knowledge about SoR compared to BEd programs, though it is still not the predominant source for most teachers.

### Required Professional Development (PD):

The Required PD appears to be a more significant source of knowledge for many respondents, with 95 (36%) reporting that it provided "some" or "half" of their knowledge about SoR. However, a substantial portion (39%) still reported minimal contribution (none or some). This indicates that PD contributes meaningfully to teachers' knowledge but is not universally comprehensive.

### Self-Study:

Respondents reported self-study as the most substantial source of SoR knowledge, with 98 (37%) indicating that it contributed "most" of their knowledge and 123 (47%) stating it contributed "all" of it. This suggests that self-study is a critical component for many teachers in learning about SoR, potentially indicating a gap in

## Discussion

BEd programs are often viewed as less effective in delivering comprehensive Science of Reading (SoR) knowledge. In contrast, Graduate Degree programs provide more significant contributions but are not the primary source for most educators. Required professional development is beneficial but doesn't fully address all teachers' needs. Self-study emerges as the most influential source of SoR knowledge, underscoring its crucial role for teachers aiming to deepen their understanding. These findings suggest that, despite the value of formal education and professional development, many teachers depend on self-directed learning to thoroughly grasp the Science of Reading.

## Insights/what I have learned

I worked directly with the focus group data that followed the surveys in this research project. The combined data taught me the value of professional learning and development and self-study beyond my undergraduate degree.

This research has highlighted that qualitative research provides deep, contextual insights into complex issues that quantitative methods might miss. It helps explain underlying processes and patterns, uncover gaps, and understand context. By complementing quantitative data, qualitative research offers a richer, more comprehensive view of the research topic.