



INSTITUTE OF **READING DEVELOPMENT**



RESEARCH BRIEF

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Introduction

This research brief provides a concise summary of the findings that support the Institute of Reading Development's Reading & Writing Skills Program in accelerating learning through high-dosage tutoring. The Institute regularly reviews current research related to best practices in reading instruction and student engagement and applies that learning directly to the Reading & Writing Skills Program.



I. Curricular Influence

The Institute of Reading Development's (IRD) Reading and Writing Skills (RWS) program comprises a comprehensive curriculum that is grounded in developmental theory and literacy research and incorporates research-based practices. The curriculum encompasses identifiable stages of reading development in which children require varying amounts of instruction in the mechanics of reading, comprehension, and enjoying literature (Chall, 1983). The curriculum also reflects a model of reading acquisition and research on teaching reading that focus on both whole language and phonics instruction (Adams, 1994). Other influences include the schema-theoretic model which provides a useful approach to conducting discussions of literature (Anderson & Pearson, 1984).

The RWS curriculum spans pre-Kindergarten through high school levels. Teacher-led small group instruction, independent reading with corresponding activities, and one-on-one tutoring all lead students toward improved fluency and reading rates, increased comprehension and writing skills, expanded vocabulary, enhanced enthusiasm and interest in reading for pleasure, and an expanded sense of empathy and awareness of others. The supporting research offered below highlights the strategies and practices that undergird IRD's Reading and Writing Skills program and the positive student outcomes linked to its successful implementation.

II. Benefits of High-Impact Tutoring

High-impact tutoring has been shown in the empirical literature to increase learning and improve achievement across students at all grade levels. A meta-analysis of 96 randomized evaluation studies yielded large, statistically significant effects of tutoring on learning outcomes, highlighting frequency and duration as key elements (Nickow, Oreopoulos, & Quan, 2020).

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“High-impact, also referred to as high-dosage, incorporates at least 50 hours across 36 weeks, with demonstrated effects on reading and math achievement”
(Robinson, Kraft, & Loeb, 2021).

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IRD’s RWS program offers a minimum of three hours per week, doubling the dosage rate linked to achievement effects when implemented for the same time period of 36 weeks.

The Institute of Reading Development’s Reading and Writing Skills program offers direct small-group instruction, independent reading and activities, and one-on-one tutoring each week. A review of the evidence base has shown that tutoring in small groups, especially those grouped by skill level, can be effective (Robinson et al., 2021). Independent reading practice provides the necessary opportunity for students to consolidate their reading skills and strategies and take ownership of them. Reading proficiency has been shown to lag without extensive reading practice (Allington, 2012; Hiebert, 2014). Nickow et al.’s (2020) meta-analysis offered a more recent body of empirical studies on tutoring and improved learning outcomes, noting particular effects of one-on-one tutoring on younger students, as there were fewer randomized studies focusing on adolescents. These findings support earlier evidence on the effectiveness of one-on-one instruction in reading among young students, including rigorous studies from the USDE Institute of Educational Sciences in 2003 (as cited in Askew & Simpson, 2004).

IRD’s combination of instructional strategies, high dosage, and evidence-based tutoring practices within the RWS program are designed to achieve positive student outcomes.

Researchers have also noted, in a review of the existing research base, that time and space have presented logistical challenges for schools when trying to implement tutoring programs (White, Carey, O’Donnell, & Loeb, 2021). The RWS program overcomes this challenge through its flexible accessibility, allowing for implementation during school and through virtual instruction and support. White et al. conducted interviews across seven school districts in 2021 and have found that tutoring during the school day was preferred by many school districts, as this would maximize student access and program effectiveness. This is consistent with the research that tutoring programs implemented during the school day have shown significantly greater effects than those implemented after school (Nickow et al., 2020;

Robinson et al., 2021). Robinson et al. (2021) have found that while most of the existing tutoring research focuses on in-person programs, evidence is emerging that demonstrates the effectiveness of virtual or online tutoring.

III. Phonics, Fluency, and Reading Rate

The Reading and Writing Skills program incorporates phonics instruction and fluency development early into its curriculum for younger students as building blocks for reading. Phonics and fluency are the two primary ingredients in the early stages of teaching and developing reading among young children (National Institute of Child Health and Human Development [NICHD], 2000). Noltemeyer, Joseph, and Kunesch (2019) examined the effects of a phonics small group instructional approach for improving reading skills among a small sample of kindergarteners randomly assigned to either the phonics condition or a control group. Post-test results suggested the phonics instruction was effective at improving immediate word recognition compared to pre-test levels.

The research literature has long shown the relationship between reading fluency and comprehension. Reading fluency is known to be a defining characteristic of good readers, whereas a lack of or limited fluency is more common among less successful readers. These limitations of fluency have shown to be a reliable predictor of problems with reading comprehension (Hudson, Lane & Pullen, 2004). These researchers further note that less-skilled readers benefit from direct instruction in reading fluently and focused practice.

Fluency development, common in all reading instructional and tutoring programs for elementary level students, is not as commonly included in middle and high school programs.

The RWS program incorporates strategies with students at these grade levels to improve fluency and reading rates.

Paige and Magpuri-Lavell (2012), in their study on the importance of reading fluency in middle and high school grades, noted that the overall low NAEP reading scores of 8th graders in the US appeared to be related to comprehension and suspected that fluency skills may be inadequate in many adolescent students. Regarding fluency in adolescents, the findings yielded that fluency accounted for half of the variance in reading comprehension for both middle and high school readers, suggesting that fluency plays a significant role. Durukan (2020) found that directly training students on fast-reading strategies showed statistically significant increases in comprehension levels among 40 secondary school students, in a pre-post-test analysis. The researchers found a moderately high, significant correlation ($r=.63$,

$p<.05$) between reading rates and comprehension levels. Bigozzi, Tarchi, Vagnoli, Valente, and Pinto (2017) studied the predictive relationship between reading fluency, comprehension, and grades in literacy-based subjects across 489 students in upper elementary, middle, and high school grades. Their findings included significant relationships between aspects of reading fluency (accuracy and rapidity), indicating that greater accuracy and rapidity were related to greater comprehension and higher scores in subjects. Conversely, the fewer decoding errors, the better the comprehension. The researchers believed that these findings highlight the importance of reading fluency at the high school level and its contributions to school outcomes.

IV. Effective Strategies in Reading Instruction: Writing and Vocabulary

The research supports reading programs that are balanced with writing components, as well as other skill-based strategies. IRD's RWS program effectively incorporates writing and vocabulary instruction combined with practice throughout the various educational levels.

Incorporating a range of strategies in reading instruction is necessary to the development and improvement in comprehension. In particular, the use of multiple interactive strategies, used flexibly and appropriately, is most effective.



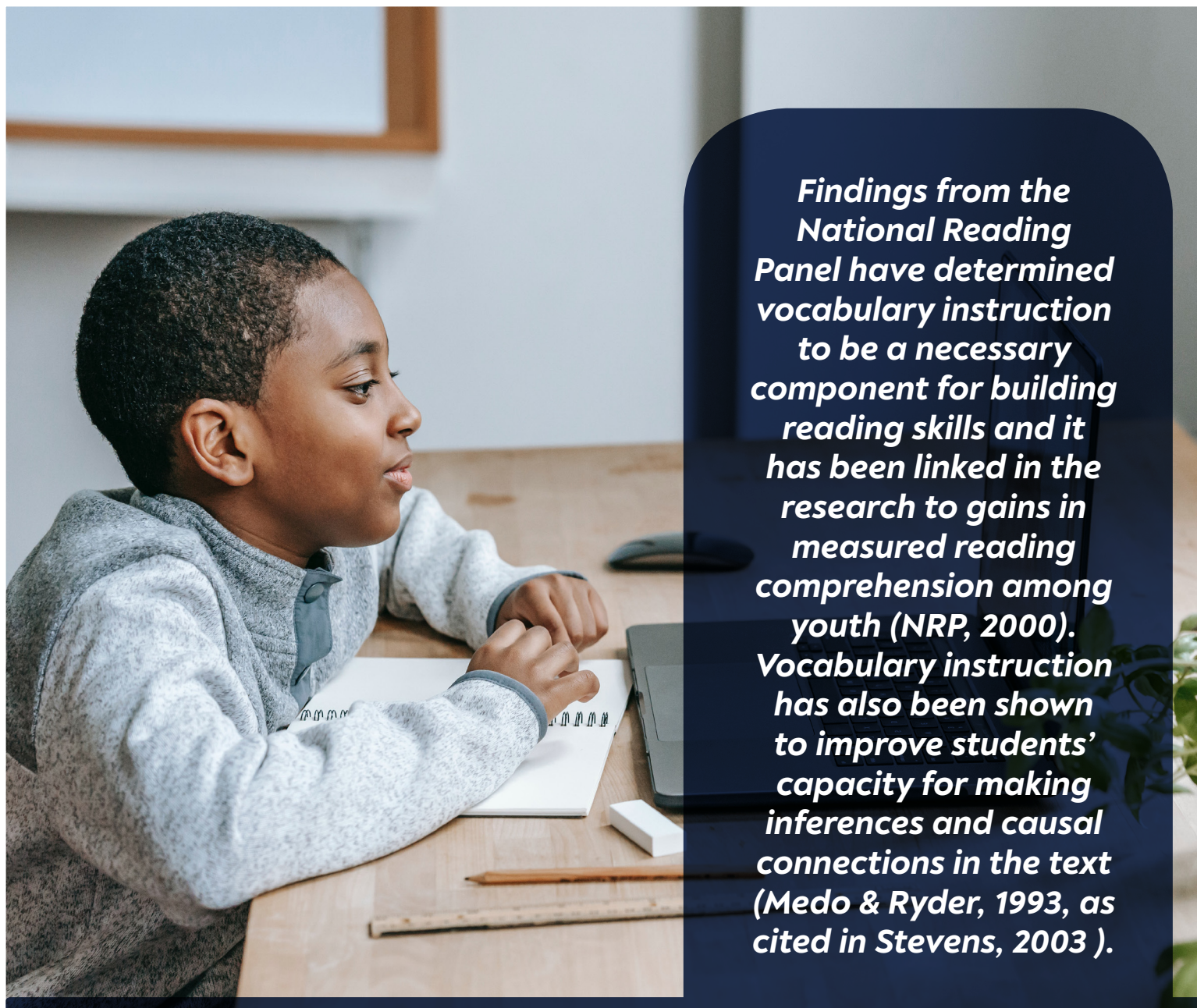
The empirical evidence reviewed by the National Reading Panel suggested that use of multiple strategies has led to increased retention and learning of new texts, increased comprehension, and the specific transfer of learning (NRP, 2000). These strategies include skill development and practice in writing and vocabulary.

Empirical evidence supporting the integration of writing activities and reading instruction emerged in an experimental study in which high school teachers incorporated discussion and analysis strategies into literature-based reading lessons. The findings revealed significant improvements in students' ability to describe conflicts in written form (Niemi, Wang, Steinberg, Baker, & Wang, 2007). At the elementary school level, researchers studied 50 first grade classrooms and found positive effects in spring reading achievement as a result of student writing practice, after controlling for the effects of reading instruction and fall reading achievement (Coker, Jennings, Farley-Ripple, & MacArthur, 2018).

In the Graham et al. (2018) meta-analysis of combined reading and writing programs, the researchers found that balanced programs improved reading comprehension, decoding, and vocabulary with effect sizes ranging from .35 to .53. Further, the programs also significantly improved writing quality and mechanics.

Stevens (2003) used a quasi-experimental design to study the effectiveness of a research-based literacy program that integrated reading literature with relevant activities such as vocabulary instruction and writing exercises aimed at the expression of feelings, ideas, opinions, and experiences. Students also engaged in descriptive, persuasive, and explanatory writing activities. In this study of over 3,900 middle school students, the findings included significant gains among students who participated in this program in the areas of reading comprehension, vocabulary, and language expression. Based on the findings, the researcher also suggested that integration of writing was a contributor to increased student engagement and willingness to take responsibility for their own learning.

The Reading and Writing Skills program incorporates vocabulary instruction and practice, grounded in Beck, McKeown, and Lucan's (2013) extensive work in vocabulary development and instruction.



Findings from the National Reading Panel have determined vocabulary instruction to be a necessary component for building reading skills and it has been linked in the research to gains in measured reading comprehension among youth (NRP, 2000). Vocabulary instruction has also been shown to improve students' capacity for making inferences and causal connections in the text (Medo & Ryder, 1993, as cited in Stevens, 2003).

V. Discussion to Improve Comprehension

The Reading and Writing Skills program leads students through strategies to become better readers and is linked to a growing interest and enthusiasm for reading, independently and for pleasure, paving the way for life-long reading and positive outcomes for students. There is a growing body of research on the benefits of reading for pleasure among youth.

Evidence has supported that reading for pleasure may be more important for a student's academic success than their family's socioeconomic status (OECD, 2002, as cited in Department for Education, 2012; Whitten, 2016).

Research gathered from the National Literacy Council in 2006 has emphasized the importance of reading for pleasure in students' academic progress and success. Such outcomes included improvements in comprehension, vocabulary, and self-confidence in reading (Cox & Guthrie, 2001, Angelos & McGriff, 2002, and Guthrie & Alverman, 1999, as cited in Clark & Rumbold, 2006). Other benefits have included positive attitudes toward reading, increased general knowledge (Clark & Rumbold, 2006) and higher scores on reading assessments (Twist, Schagen & Hodgson, 2006).

Clark and De Zoysa (2011) found significant positive relationships between reading for pleasure and attainment of reading skills through surveys of 4,500 students on reading attitudes and reading performance (e.g., comprehension, vocabulary), as measured on formal assessments. Sullivan and Brown (2013) have found that children between the ages of 10 and 16 who read for pleasure made more progress in vocabulary, spelling, and math compared to those children who rarely read. Whitten et al. (2016) conducted a mixed-method study to determine potential academic benefits of reading for pleasure among 11th grade students. Their findings were consistent with previous research on improved comprehension and critical thinking skills. Further, they found that those who read for pleasure also performed better in other curricular areas such as science and history.

Willingham (2015) explained how developing reading for pleasure could be initiated in the classroom through effectively instituting time for silent independent reading, a standard component built into the weekly activities of IRD's RWS program. Important elements incorporated into silent reading time, as determined by the researcher, included building in opportunities for students to engage in book discussions and having the teacher take an active role to field questions and confer with students. Taking on this more active role was linked to students' interest and engagement in reading (Kamil, 2008, as cited in Willingham, 2015).

VI: Expanded Empathy, Sensitivity, and Awareness

Reading materials in the Reading and Writing Skills program are selected based on literary merit, compelling and relatable characters, diverse cultures and backgrounds, and relevant themes that inspire and expand empathy and sensitivity among students. The use of literature to teach children social emotional skills can be very effective because, “Through the imaginative process that reading involves, children have the opportunity to do what they often cannot do in real life—become thoroughly involved in the inner lives of others, better understand them, and eventually become more aware of themselves” (Ludwig, 2013).

Kidd and Castano (2013) conducted a series of five experiments using award-winning literature and a range of validated assessments to measure student outcomes. Their findings linked reading literary fiction, as opposed to popular fiction, to the enhancement of empathy and sensitivity to others’ beliefs and/or intentions. Such findings were consistent with other studies that found reading fiction influenced positive changes in self-reported empathy and expanded knowledge and connections to others’ lives and situations (Bal & Veltkamp, 2013).

Bal & Veltkamp (2013) conducted experiments with students to determine the influence of reading fiction on empathy over time. In comparison to readers of non-fiction books, self-reported empathic skills were most prevalent when readers were able to make emotional connections or become “transported” into the story. Similar empirical findings have suggested a role for teaching with fictional literature in developing empathy among students (Djikic, Oatley, & Moldoveanu, 2013, as cited in Bal & Veltkamp, 2013).



According to Gareis, Allard, and Saindon (2009), the use of literature has promoted the development of cultural awareness, through compelling plots, interesting characters, and often rich and descriptive cultural content. Research has also shown that reading for pleasure, an outcome associated with the RWS program, has led to an increased understanding of other cultures and human nature (Meek, 1991, Bruner, 1996, as cited in Clark & Rumbold, 2006) and the capacity to empathize with others (Whitten, 2016).

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