Learning Task 2

Interventions for Reading Comprehension

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Introduction

This exploration into reading comprehension, a pivotal aspect of academic achievement, delves into its intricate nature and the challenges in its enhancement. Insights from the Simple View of Reading, the Direct and Inferential Mediation model, and Scarborough's Reading Rope model underscore the importance of background knowledge, vocabulary, comprehension strategies, and word recognition skills (Adlof et al., 2011; Perfetti, Landi, & Oakhill, 2005; Ahmed et al., 2016; Cromley et al., 2010; Oslund et al., 2018; Oslund et al., 2016; Scarborough, 2011).

The review emphasizes the need for personalized interventions, considering the distinct requirements of each learner, by exploring the potential of consultative problem-solving within schools as a strategy to address reading comprehension challenges. The analysis underscores the roles of educators, caregivers, families, and service providers, advocating for a collaborative approach. It also examines a range of evidence-based interventions, assessing their applicability to diverse learning needs (Elleman, 2017; Elbro & Buch-Iversen, 2013; Kendeou et al., 2016; Guthrie & Klauda, 2014; Vaughn et al., 2013) to provide a comprehensive understanding of strategies and interventions that can effectively enhance reading comprehension. Focus is given to understanding meaning, fostering motivation and skills, enhancing reading fluency, and explicit teaching in learning to read.

The crucial role of school psychologists in assessments and intervention planning is also acknowledged. This review concludes by exploring ways to bridge research, teaching methods, and policy, offering practical solutions to improve reading comprehension instruction (Elleman & Oslund, 2019). The following section briefly examines a breadth of reading comprehension interventions.

Unveiling the Scope of Reading Comprehension Interventions: Understanding the Landscape

Reading comprehension, a multifaceted cognitive skill, is vital for student success in modern educational settings (Snow, 2002). Despite extensive research, its enhancement remains a formidable challenge (Elleman & Oslund, 2019). This complexity stems from background knowledge, vocabulary, and inference generation (Perfetti & Adlof, 2012). The Simple View of Reading (SVR), the Direct and Inferential Mediation model (DIME), and Scarborough's Reading Rope are fundamental theories offering insights into reading comprehension. SVR suggests that reading comprehension emerges as the product of word decoding and linguistic comprehension (Gough & Tunmer, 1986; Stanley et al., 2017), while DIME underscores the role of vocabulary and background knowledge (Ahmed et al., 2016; Cromley et al., 2010). Scarborough's Reading Rope model dissects reading components into word recognition and background knowledge, guiding educators in identifying teachable components (Scarborough et al., 2009).

Studies indicate that students with more prior knowledge excel in reading comprehension tasks, highlighting the need to build background knowledge (Schneider et al., 1989). Vocabulary, another strong predictor of reading comprehension, requires more than explicit instruction; words are primarily learned implicitly through repeated exposures in varied contexts (Landauer & Dumais, 1997).

Research also emphasizes the role of comprehension strategies and metacognitive approaches in improving reading comprehension, with the DIME and cognitive models operationalizing these into four instructional approaches (McKenna & Stahl, 2009; Ahmed et al., 2016). However, interventions should consider the unique features of individual students, text types, and instructional goals (Filderman et al., 2021).

For students with reading disabilities, tools like text-to-speech can significantly improve comprehension by bypassing the need for decoding (Wood et al., 2017). These aspects underscore the multi-dimensional nature of reading comprehension and the need for comprehensive, individualized interventions. Moving forward, it becomes clear that addressing these challenges requires individual efforts and a collective approach that leverages the expertise of various educational professionals.

Navigating Reading Comprehension Challenges: An Examination of School-Based Consultative Problem-Solving Strategies

School-based consultative problem-solving has emerged as a key approach to addressing reading comprehension challenges in education. This method encourages collaboration among educators, school psychologists, and other educational professionals (Burns et al., 2010). Several strategies have been developed within this collaborative framework. Alvermann & Eakle (2003) highlight the effectiveness of explicit instruction and scaffolding, where teachers break down the reading process into manageable parts, enabling students to navigate various content area texts. Burns et al. (2017) propose a nine-step strategy incorporating peer collaboration designed for students struggling with comprehension. EAB (2019) and Gersten et al. (2001) emphasize the progression from decoding to comprehension, stressing the importance of mastering automaticity in foundational reading skills. Scholin et al. (2013) discuss the response-to-intervention (RTI) model as a systematic way to support students through multiple tiers of instruction. Wilcox et al. (2022) illustrate the neurological basis of comprehension, linking cognitive processes and reading success.

A common theme in the literature is the importance of collaboration and targeted instruction. However, gaps persist, necessitating further exploration of the consultative problem-solving approach and rigorous assessment of these strategies' impact on reading comprehension. School-based consultative problem-solving offers promising strategies for enhancing reading comprehension interventions. Educators can support their students and improve reading outcomes by understanding and implementing these approaches. The potential of these strategies to transform education underscores the importance of continued research and development. In the next section, we look at teachers' role in effectively delivering these strategies as crucial to improving reading comprehension outcomes.

Strengthening Teachers' Intervention Delivery Capabilities: Evidence from Literature

Teachers are instrumental in enhancing students' reading comprehension skills (Alvermann & Eakle, 2003; Burns et al., 2017). Strategies like instructional scaffolding, explicit instruction, and tailored reading interventions can address individual learning needs and improve reading comprehension outcomes (Burns et al., 2011; EAB, 2019; Gersten et al., 2001). Unique techniques, such as the 'scrambling' of text passages, highlight the need to bolster teachers' intervention delivery capabilities (Burns et al., 2010). Differentiated instruction, tailored to individual needs, can significantly improve short-term outcomes (Treptow et al., 2007). The potential for further exploration lies in adapting intervention format and delivery based on different contexts (Scholin et al., 2013).

Over time, the decline in reading comprehension skills, attributed partly to decreased textbook complexity and increased digital media consumption, underscores the urgency to strengthen teachers' skills (Adams, 2011; Wilcox et al., 2022, p.132). Despite evidence supporting explicit instruction and comprehension strategies, these practices are rare (Gersten et

al., 2001; Swanson et al., 2016). Bridging this gap requires robust teacher preparation programs and professional development focused on evidence-based practices (Elleman & Oslund, 2019). Therefore, a multifaceted approach is suggested to improve reading comprehension, combining explicit instruction, differentiated instruction, and strategic use of unique techniques. The potential for these strategies to transform education underscores the importance of future research into their effective translation into classroom practice.

The need for widespread adoption of evidence-based practices in classrooms is clear. Empowering teachers with the necessary skills and knowledge to implement these strategies effectively will enhance intervention delivery capabilities and improve reading comprehension outcomes. Teachers at the forefront of implementing change in evolving educational landscapes must adapt and deliver interventions effectively. The following section underscores the pivotal role of teachers in enhancing reading comprehension and the need to strengthen their intervention delivery capabilities.

The Power of Collaboration: Working with Caregivers, Families, and Service Providers

Effective reading comprehension interventions necessitate an all-inclusive approach that transcends the confines of the classroom, which involves harnessing the collective efforts of caregivers, families, and other service providers as a vital nexus of these interventions (Burns et al., 2010; Gersten et al., 2001). Such an approach fosters a supportive network surrounding the student, creating a vibrant, enriching learning environment.

At the forefront of this collaboration are teachers, who shoulder the responsibility of tailoring reading goals and enriching the learning content by integrating diverse resources into the curriculum (Alvermann & Eakle, 2003). Concurrently, caregivers and families extend this educational landscape to the home environment, nurturing reading habits and mirroring school-

based interventions (Burns et al., 2010). One practical manifestation of this collaboration is evident in guided reading sessions that require significant resources and thrive in a one-on-one setting (Burns et al., 2017).

This collaborative ecosystem provides a linguistically diverse milieu for students, fostering vocabulary development and a nuanced understanding of grammatical structures (Gersten et al., 2001). Such cooperative efforts enable reading comprehension interventions to adapt to the dynamic nature of comprehension, considering the intricate interplay between the reader, the text, and the task characteristics (RAND Reading Study Group, 2002). Furthermore, this collaborative framework extends to address broader societal trends and challenges. As student reading patterns evolve, evidenced by the decline in leisure reading and the rise in digital reading (Wilcox et al., 2022), a coordinated response involving researchers, educators, and policymakers becomes imperative. Such multifaceted collaboration is critical in navigating these shifting trends and enhancing adolescent reading comprehension (Elleman & Oslund, 2019).

Therefore, the seamless integration of teachers, caregivers, families, and service providers is indispensable for successful reading comprehension interventions. This inclusive approach responds to the dynamic nature of reading and learning, aiming to foster improved reading comprehension among students. The following section shifts focus by drawing attention to the diverse needs of learners and the evidence-based interventions designed to address these needs.

Diverse Interventions for Diverse Needs: A Review of Evidence-based Approaches

The correlation between Oral Reading Fluency (ORF) and comprehension, especially among adolescents, is well-established (Burns, 2010). Interventions manipulating reading

fluency, such as "Scrambled Words" and "Repeated Readings Intervention," can significantly improve comprehension by slowing down decoding and enhancing reading speed and accuracy, respectively.

Instructional scaffolding and self-questioning strategies, including a graphical depiction of text relationships and summarization strategies, can aid struggling readers (Alvermann, 2003). The "Word Building" intervention, which involves forming a chain of words differing by a single grapheme, can enhance phonological awareness, comprehension, and decoding skills (Burns, 2017. pp. 155-159).

Pre-teaching keywords and text previewing are effective comprehension-enhancing strategies (Burns, 2011). Similarly, strategies like "Tell Fact or Fiction," "Restatement Procedure," "Question-Answering," "Three-Part," and "Multiple-Component Strategy Intervention" can improve comprehension and foster active text engagement (Gersten, 2001, pp. 303-306).

These interventions should be customized to each student's needs, providing supportive feedback and guidance. The success of these strategies depends not only on their implementation and consistent student progress monitoring but also on the process of their introduction and management.

Planning for success through the lens of the 10-Step Intervention Assistance Process

Implementing reading comprehension interventions benefits from a structured, evidence-based approach, such as the 10-step intervention assistance process (Elleman & Oslund, 2019; Burns et al., 2010; Burns et al., 2017, pp. 44-47; Gersten et al., 2001). This method guides the successful planning, implementation, and evaluation of interventions, starting with problem identification and baseline data collection (Step 1 and Step 2).

A thorough problem analysis, including an ecological examination of the issue (Step 4), aids in understanding root causes and facilitating the selection of suitable interventions (Alvermann & Eakle, 2003). Incorporating effective instructional techniques at this stage, such as teaching students to utilize background knowledge, integrate it with the text, and employ various comprehension strategies (Step 5 and Step 6), is crucial (Elbro & Buch-Iversen, 2013; Kendeou et al., 2016; Filderman et al., 2021).\

A comprehensive intervention plan can then be developed and implemented (Step 7 and Step 8), requiring thoughtful planning and integration of recommendations from the Common Core State Standards (Cervetti & Hiebert, 2015; Hiebert & Mesmer, 2013). When aimed at reading comprehension, these standards would emphasize text complexity and recommend increased use of informational texts. Hence, intervention plans through the ten-step process focus on improving background knowledge, vocabulary, inference, and comprehension monitoring skills (Cromley et al., 2010; Gambell et al., 2002).

The effectiveness of the intervention plan then needs to be evaluated (Step 9) to ensure success (Edyburn, 2007; Wood et al., 2017). Regular checks to assess progress and make necessary adjustments can help address challenges in determining when an intervention has failed or when students should start using compensation (Edyburn, 2007).

The final step (Step 10) involves continuous problem-solving, plan revision (what worked and what did not), and possible referral, allowing for adaptability based on each student's unique context (Scholin et al., 2013; Treptow et al., 2007). A systematic and structured approach such as the 10-step intervention assistance process can target specific student needs, ensure effective implementation of interventions, and make necessary adjustments to optimize student outcomes by allowing for refinement as comprehension evolves and student needs change. This

process, while comprehensive, is only as effective as the data that informs it, which is explored in the next section.

Data-Driven Decision Making: Best Practices Across Academic Areas

The effectiveness of reading comprehension interventions hinges on data-driven decision-making (Elleman & Oslund, 2019). In the evolving educational landscape, traditional reading methods are transitioning to dynamic, data-informed approaches (Alvermann & Eakle, 2003). This shift necessitates understanding individual learners' needs and a comprehensive approach to language comprehension and word decoding abilities (EAB, 2019).

Elleman & Oslund (2019) recommend Global Integrated Scenario-based Assessments (GISA), a method that assesses deeper comprehension. Diagnostic tests are essential for identifying student difficulties, tailoring interventions, and monitoring progress. Alvermann & Eakle (2003) highlight multimedia and interactive communication technologies to enhance comprehension, particularly for struggling readers. They advocate for instructional scaffolding and computer-assisted multilingual software in diverse classrooms. Data-driven decision-making allows educators to customize interventions (Gersten et al., 2001).

Data-informed strategies are crucial for evaluating intervention effectiveness. Burns et al. (2017) suggest tools for progress tracking, such as self-monitoring forms and class-wide scanning forms. These measures inform intervention strategies. Clemens & Fuchs (2021) note the need for longer intervention durations to observe general gains in reading comprehension. Best practices in reading comprehension interventions highlight the importance of understanding individual learners' needs and adopting a multifaceted approach to language comprehension and word decoding abilities. Integrating data-driven decision-making processes within a tiered system of support can narrow the reading gap and equip learners with the foundational skills

necessary for success. This approach, grounded in evidence-based strategies and continuous progress monitoring, sets the stage for a more nuanced discussion of the broader implications of these findings.

Implications for School Psychology Practice

This literature review carries significant implications for School and Applied Child Psychology. Evidence suggests that enhancing reading comprehension requires a collaborative focus on developing linguistic and cognitive processes, background knowledge, vocabulary, inference-making, and comprehension monitoring skills (Elleman & Oslund, 2019).

School psychologists can utilize the DIME and cognitive models as guides for comprehension interventions, targeting specific constructs and skills crucial for reading comprehension (Cromley et al., 2010; McKenna & Stahl, 2009). Data-driven decision-making processes and student inclusion in learning can foster effective interventions (Alvermann & Eakle, 2003). Strategy instruction and other instructional approaches can support students' reading comprehension, particularly for struggling readers in upper elementary grades and beyond (Berkeley et al., 2009; Gersten et al., 2001; Filderman et al., 2021). However, intervention planning should consider that younger students may respond less to comprehension-focused interventions than older, more proficient decoders (Filderman et al., 2021).

Measurement systems aiding teachers in text selection and providing information about conceptual overlap among texts can enhance knowledge and vocabulary acquisition (Compton et al., 2013). The need for continued support for struggling readers past Grade 3 is also emphasized (Filderman et al., 2021). Technology offers additional intervention possibilities, with tools like text-to-speech aiding students with reading disabilities, a trend deserving further exploration (Biancarosa & Griffiths, 2012; Shadish & Lecy, 2015; Shadish et al., 2015).

Finally, the contrast between the smaller effects shown by standardized measures of comprehension and those of researcher-designed measures underscores the necessity for extended intervention durations and delayed post-test data collection. This approach allows for observing general gains and long-term effects on reading comprehension (Clemens & Fuchs, 2021; Filderman et al., 2021).

School and Applied Child Psychology stands to gain significantly from these insights. Implementing evidence-based interventions, applying data-driven decision-making, and engaging students in their learning process can lead to substantial improvements in reading comprehension and overall academic performance.

Summary and Implications

School psychologists are instrumental in conducting assessments and strategizing interventions to ensure student equity. Advocacy for regular screenings for early literacy skills and the deployment of tiered interventions based on student needs was emphasized. The importance of considering a student's personal interests and goals when formulating intervention strategies is also highlighted.

This comprehensive review underscores the significance of a multifaceted approach to enhancing reading comprehension. This approach involves explicit instruction, differentiated instruction, and the strategic use of unique techniques. Collaboration involving teachers, caregivers, families, and service providers is crucial in creating a supportive student network. The necessity of individualized interventions that consider the unique features of students, text types, and instructional goals is also stressed.

Conclusion

Reading comprehension is a complex skill that requires personalized, evidence-based interventions to enhance academic achievement. This comprehensive review briefly examined several strategies that can be tailored to meet the unique needs of each student, such as 'Repeated Reading' and 'Word Building.' However, these tailored strategies must be monitored, evaluated, and refined regularly to optimize their effectiveness. The 10-step intervention assistance process discussed provides a structured and systematic approach that helps educators and school psychologists plan, implement, and evaluate interventions based on data-driven decision-making. Technology is another factor that can influence reading comprehension interventions. Innovative tools, such as Global Integrated Scenario-based Assessments and multimedia resources, can provide engaging and motivating learning experiences for students and help them develop the skills needed to cope with the challenges of a rapidly changing world. School psychologists can play an integral role in tackling the arising instructional challenges; the insights they provide from the DIME model, the cognitive model, and other evidence-based practices can empower educators to design and deliver interventions beyond traditional education boundaries. School psychologists are particularly impactful as team members of school-based teams when addressing the diversity of individual learners' needs, strengths, and challenges, helping provide the scientist-practitioner perspective to consultation. The future of reading comprehension interventions remains promising and challenging, demanding creativity and collaboration from all stakeholders, aiming to create a world where every student's reading comprehension journey is enriched, empowered, and successful.

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