The Role of Prompt Fading in Teaching Self-Questioning for Improved Text Comprehension: Evidence from a Single-Case Study

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ABSTRACT:

The present study examines the effectiveness of prompt fading in teaching self-questioning strategies to enhance reading comprehension among upper elementary students with learning disabilities. Grounded in the Gradual Release of Responsibility Framework (Pearson & Gallagher, 1983), this technique systematically reduces external support, enabling students to apply cognitive strategies independently. Despite its theoretical promise, empirical evidence on the effectiveness of prompt fading in reading interventions remains limited. To address this gap, a single-case study was conducted with three multilingual students with learning disabilities (aged 8–10) in an inclusive elementary school in Germany. Using an expository text comprehension task, they were guided through a structured prompt fading procedure to develop self-questioning skills. Results demonstrated substantial improvements, as measured by effect sizes and hierarchical piecewise linear regression. These findings support the assumption that prompt fading is an effective tool for fostering independent questioning skills in upper elementary students with learning disabilities and diverse linguistic backgrounds. Further research should explore its applicability in various educational contexts.

Keywords: Prompt Fading, Self-Questioning Strategies, Reading Comprehension, Learning Disabilities, Multilingual Students

INTRODUCTION

The Importance of Reading Comprehension Across Contexts

Reading comprehension is pivotal across various domains, including school, vocational training, professional life, and leisure. Within educational contexts, it provides the basis for acquiring knowledge, developing critical thinking, and fostering lifelong learning. In the workplace, strong comprehension skills enable individuals to understand instructions, interpret technical materials, and advance their careers. Beyond formal settings, the ability to comprehend written information enriches leisure activities, supports informed decisions, and fosters personal growth. Moreover, proficient reading is vital to health, safety, and everyday functioning—it allows individuals to interpret medication labels, consent forms, and emergency instructions accurately. Finally, reading comprehension underpins civic and digital participation, from critically evaluating news and public-policy documents to navigating online information and workplace communication, thereby empowering informed decision-making in modern life (Bruggink et al., 2025; Vaughn, 2024).

The Foundations and Challenges of Reading Comprehension

The Simple View of Reading (SVR), introduced by Gough and Tunmer (1986), effectively explains the prerequisites for achieving a high level of reading comprehension. This ability depends on both the capacity to decode words and the capacity to comprehend language. Their relationship is expressed as a mathematical product, meaning that both skills must be sufficiently developed to achieve strong reading comprehension. This multiplicative formulation (RC = WR × LC) explicitly distinguishes the model from additive perspectives, which would suggest that strong ability in one component could compensate for weakness in the other—a notion the SVR directly rejects (Hoover, 2024). Unlike models that treat these components as merely additive, this approach emphasizes that a weakness in either decoding or language comprehension can significantly hinder overall reading ability. It also challenges common misconceptions in education, particularly the belief that strong language comprehension can compensate for poor decoding skills. Instead, it highlights the necessity of accurate and efficient word recognition for successful reading (Hoffman, 2009).

By additive models, we refer to early conceptualizations of reading development that treated decoding and linguistic comprehension as independent, compensatory components, implying that strong skills in one area could offset weaknesses in the other. Such formulations stand in contrast to the SVR's multiplicative logic, which stresses that adequate performance in both components is essential. Yet, even this multiplicative framework does not sufficiently account for the specific challenges faced by emergent bilingual learners—such as our participants—who have reading comprehension shaped not only by word recognition and oral language, but also by vocabulary depth, cultural knowledge, and second-language processing strategies. Accordingly, we use the SVR as a useful starting point while explicitly recognizing the need to consider additional dimensions that are particularly salient for L2 readers.

For the majority of students, the SVR offers a sound account of how the ability to derive meaning from texts develops. By the end of elementary school, most of them have acquired sufficient decoding skills, achieving a reading speed of approximately 160 words per minute in texts of moderate difficulty (e.g., LIX ≈ 35), alongside adequate language comprehension. This dual competence enables them to transition smoothly into higher levels of academic learning (Hasbrouck & Tindal, 2017). As a result, they are well-prepared to engage with increasingly complex texts and apply their reading skills across diverse contexts (Cain et al., 2017).

Nevertheless, recent scholarship has emphasized that the SVR, while highly influential, should not be seen as a complete account of reading comprehension. Hoover (2024) notes that difficulties in understanding text can arise even when decoding and language comprehension are relatively strong, and that the SVR allows for significant variation within reader profiles. Catts (2018) likewise cautions that its simplicity has fostered false impressions, especially by underestimating the multidimensional nature of comprehension. Beyond decoding and oral language, factors such as background knowledge, vocabulary, working memory, inferencing, socio-cultural context, and motivation are crucial. For emergent bilingual learners—such as the participants in this study—language proficiency and cultural knowledge are particularly crucial (Catts, 2018).

Alternative frameworks, including the Construction–Integration model (Kintsch & van Dijk, 1978), Scarborough's Reading Rope (2001), and the RAND framework (Snow, 2002), capture these dimensions by situating comprehension at the intersection of reader, text, and task. Integrating such perspectives alongside the SVR provides a more nuanced view of the challenges faced

by bilingual and struggling readers. Thus, this study acknowledges the enduring utility of the SVR while also recognizing its limits and complementing it with broader conceptualizations (Hoover, 2024; Catts, 2018).

However, regardless of the theoretical framework used to explain how the ability to understand written text develops, it is evident that far from all students acquire the skills essential for reading comprehension. This is especially true of students with learning disabilities, who are characterized by limited capacities to store, process, or produce information (Grünke & Cavendish, 2016). Even without a formal diagnosis, the proportion of children and adolescents who struggle with reading is alarming. According to the most recent statistics published by the National Literacy Institute (2024), approximately 40% of students in the United States cannot read at a basic level—meaning they are unable to interpret texts effectively. Nearly 70% of low-income fourth graders fail to meet this benchmark. In Germany, where the present study was conducted, 33% of ninth graders fail to meet the minimum reading standards required for the intermediate school-leaving certificate, indicating severe difficulties (Organisation for Economic Co-operation and Development, 2023).

We report U.S.-based figures to contextualize the scale of reading difficulties within a well-studied educational system and to situate our work within an international discourse. We pair these data with German benchmarks to justify their local relevance. Importantly, by "cannot read at a basic level," we refer to difficulties achieving functional proficiency in grade-level comprehension—not complete illiteracy—whereas "illiteracy" in this manuscript is used as shorthand for substantially inadequate reading proficiency with significant functional consequences; we clarify this distinction below.

The implications are profound: without adequate reading comprehension, these individuals face significant barriers to educational attainment, career opportunities, and full participation in society. If they fail to develop sufficient reading comprehension skills by the end of elementary school, they are likely to encounter significant academic challenges, which can often result in poor performance in other subjects, emotional struggles, and long-term social consequences (Morgan et al., 2012).

Illiteracy also has far-reaching societal effects. An estimated 85% of juvenile offenders struggle with reading, and many states use elementary school literacy rates to predict future prison bed needs. Without early and effective interventions, weak reading skills contribute to unemployment, poverty, and dependence on social services, costing the nation billions of dollars annually and perpetuating cycles of disadvantage (Axelrod, 2019; National Literacy Institute, 2024). To avoid confusion, in the present paper, "illiteracy" refers to severe reading underachievement that limits functional participation; the discussion centers on remediation of low-to-moderate proficiency rather than complete non-literacy.

Evidence-Based Strategies for Supporting Struggling Readers

Fortunately, there are numerous effective strategies to support students struggling with reading comprehension, including those with learning disabilities. Several meta-analyses have identified evidence-based interventions that significantly improve outcomes for learners who struggle to understand texts. Research by Hall et al. (2022), Donegan and Wanzek (2021), Gersten et al. (2020), Neitzel et al. (2022), and Wanzek et al. (2018) collectively demonstrates that structured and explicit approaches to teaching reading yield substantial benefits. These studies highlight several key factors contributing to the success of respective interventions, including systematic practice, tailored feedback, and opportunities for the guided application of strategies. Notably, interventions that integrate foundational skills instruction with metacognitive strategies—such as teaching students to monitor their understanding and generate questions about the text—have shown particularly strong effects on their ability to engage actively with and comprehend texts.

The principles outlined above highlight the central role of metacognitive awareness and self-directed learning in fostering reading comprehension. When teachers implement strategies that prompt students to reflect on their thought processes and monitor their own progress, they create learning environments that cultivate autonomy and responsibility. At its core, this involves guiding students to pause at appropriate points during reading, critically engage with the text, and generate self-questions to verify their understanding of key ideas. As learners practice these habits, they not only strengthen comprehension but also develop a deeper interest in the material, which in turn actively shapes and sustains their engagement with the text (Albuquerque & Melo, 2023).

In their systematic literature review on the effects of self-questioning in supporting struggling students' reading comprehension, Daniel and Williams (2021) analyzed 10 studies conducted over the past 53 years. Their findings indicate overall positive effects with medium-to-large improvements observed in several cases, suggesting that self-questioning can be a valuable tool

for enhancing reading skills. These findings underscore that implementing such strategies in instruction could be a highly effective approach to supporting students' reading development. Given the prevalence of informational texts in upper elementary science and social studies, the present study intentionally examines self-questioning within expository reading to maximize ecological validity.

Prompt Fading: A Promising Approach to Teaching Self-Questioning

In addressing the challenge of how to effectively support the transition of tasks from the teacher to the students so that students are ultimately capable of independently applying the relevant self-questioning strategies, it is appropriate to refer to the Gradual Release of Responsibility Framework, proposed by Pearson and Gallagher (1983). This model asserts that cognitive work should progressively shift from teacher modeling to a collaborative effort, ultimately culminating in independent practice and application by the learner (Minnery & Smith, 2024). In our usage, "we do it" denotes scaffolded guided practice within explicit instruction and does not imply dialogic co-construction as in socio-cultural models of collaboration.

One well-established technique aimed at achieving this gradual shift of responsibility is prompt fading. Rooted in applied behavior analysis, this approach involves systematically reducing teacher-provided support as learners gain proficiency, ultimately enabling them to apply effective strategies independently by gradually decreasing cues and prompts until the skill is performed autonomously. In the context of reading comprehension, this technique is designed to help students transition from answering guided questions to formulating their own inquiries about a text (Matson, 2023).

Despite the logical appeal of using prompt fading to teach self-questioning as a strategy for enhancing reading interventions, only two published studies on this topic have been identified to date. The first (Rouse et al., 2014) involved two fifth-grade students with learning disabilities who were taught self-questioning using a systematic prompt fading procedure. The results demonstrated sustained comprehension gains and partial generalization to more complex fifth-grade texts. In a study conducted by Rouse-Billman and Alber-Morgan (2019), the researchers explored the impact of systematic prompt fading on teaching self-questioning to three struggling fourth-grade students, aiming to improve their reading comprehension. The results indicated that all three participants showed improvement, with some generalization to more advanced content-area textbooks.

Briefly, Rouse et al. (2014) employed a multiple-probe design with explicit modeling, guided practice, and a systematic reduction of prompts from teacher-generated to student-generated questions. The outcomes showed level increases and maintenance on researcher-developed comprehension probes, although generalization to novel materials was mixed. Rouse-Billman and Alber-Morgan (2019) employed a similar sequence with content-area texts and documented gains on curriculum-based measures; however, both studies were limited by very small samples and minimal follow-up, underscoring the need for additional replication and maintenance checks.

Research Questions

There is, therefore, a need to further explore the potential of prompt fading in teaching self-questioning skills and to gain a deeper understanding of its effectiveness. This need is particularly salient in contexts outside the United States and with emergent bilingual learners, where factors beyond decoding and language comprehension—such as vocabulary depth, background knowledge, and socio-cultural context—play an important role (Catts, 2018). By situating the present study within this broader conceptual landscape, we aim to both extend the evidence base on prompt fading and acknowledge the multidimensional nature of reading comprehension. Moreover, the widely accepted What Works Clearinghouse Standards (Hitchcock et al., 2015) stipulate that, to draw conclusions from single-case studies and establish something as evidence-based practice, at least three independent research teams from different locations are required.

For this reason, the present study aims to examine the effectiveness of prompt fading in teaching self-questioning skills to upper elementary students with learning disabilities in a country outside the United States—namely, Germany—using expository texts. Expository texts were deliberately selected because informational reading increasingly dominates upper-elementary curricula and is known to pose disproportionate challenges for struggling and L2 readers due to unfamiliar vocabulary, denser concept loads, and less familiar discourse structures. Demonstrating effects under these conditions bolsters instructional relevance. In addition to evaluating its effectiveness, this study will also assess students' acceptance of the method.

METHOD

Participants

Three students took part in the intervention: two from the third grade and one from the fourth grade of an inclu-

sive elementary school located on the outskirts of a large metropolitan area in Western Germany. They were aged between 8 and 10 years, and we refer to them as Adrian, Babu, and Cebrial (names have been changed to ensure anonymity). All three students speak a first language other than German. Each participant had been formally identified with a learning disability, which means they faced significant challenges in acquiring fundamental skills that are essential for building knowledge and competencies, hindering their ability for academic and personal growth.

Before the study, special ethical permissions for conducting research with children were obtained. Informed consent was secured in writing from the legal guardians of all participants, and both the children and their guardians were fully informed about the study procedures, including the fact that some sessions would be video-recorded for research documentation purposes. The ethical review board of Learning Disabilities Worldwide reviewed and formally approved the study.

Adrian was an 8-year-and-8-month-old student with a Romanian migration background. He attended third grade and had been officially diagnosed with a specific learning disability—a reading and spelling disorder. To address his challenges, he participated in a specialized intervention program twice a week, designed to improve his reading and spelling skills gradually. Unlike many of his peers, Adrian did not have the opportunity to attend preschool before starting kindergarten. As a result, he began elementary school with lower levels of prior experience in both the German language and social competencies.

Babu was a 9-year-and-3-month-old student with a Sinhalese migration background. He also attended third grade. Babu moved to Germany in 2019 at the age of four, accompanied by his family, and has been living in a linguistically and culturally new environment for the past five years. Before starting school, Babu attended preschool for two years. Linguistic and cultural adjustments, as well as developmental delays, significantly impacted his daily life, necessitating a pedagogical approach tailored to his individual needs.

Cebrial was a 10-year, 6-month-old boy in the fourth grade. He was born in Syria but moved to Germany with his family one year after his birth. Consequently, he had lived in a new cultural and linguistic environment from an early age. Notably, like Adrian, he did not attend preschool, which likely influenced his early social integration and linguistic development.

In their daily school routine, the students received specific support from special education teachers. Both Babu and Cebrial were withdrawn from regular classes three times a week for individualized instruction in the school's learning center, where the focus was adapted to their performance levels. Adrian, on the other hand, participated in a specialized intervention program twice a week, designed specifically to address his reading and spelling difficulties. All support methods were characterized by a highly playful, unstructured approach, where students engaged in activities that allowed them to explore reading in a more hands-on, experiential manner. There was no structured strategy instruction; instead, the methods aimed to foster reading skills through creative and flexible activities that encouraged exploration and self-discovery.

The selection of students for involvement in this study was based on the recommendation of their teacher, who had identified difficulties in text comprehension across all three participants using internal school assessments. Accordingly, all three participants scored within the lowest 10th percentile. However, their reading speed was well-developed. All three students were able to correctly read 100 words in a text with a LIX index of 35 within one minute. School records indicated that their general intellectual abilities were within the normal range in all cases. However, precise IQ measurements cannot be provided at this point. Because all participants were emergent bilinguals (German as an L2), we also documented school-reported language development supports. However, no standardized German language proficiency assessment (e.g., vocabulary or syntax screening) was administered as part of this study, which we note as a limitation when interpreting the results.

Dependent Variable

To assess the effectiveness of the approach, informational texts were created with the assistance of ChatGPT. A total of 15 such passages, each consisting of exactly 150 words, were used. To ensure readability, all materials were designed to achieve a Flesch Reading Ease (FRE) score of 90. While the LIX index was referenced earlier in the study to provide a broader readability assessment, the FRE was specifically chosen for the intervention texts due to its strong emphasis on sentence length and syllable complexity, which are particularly relevant for young readers. The FRE score ranges from 0 to 100, with higher values indicating greater readability. By maintaining a score of 90, the intervention materials were deliberately crafted to be highly accessible, facilitating comprehension and engagement among the target student group.

Each text contained ten key pieces of information, accompanied by corresponding questions for assessment.

These questions offered five multiple-choice options and were designed to be answered concisely, typically in a single word. The texts were carefully selected to feature child-friendly and age-appropriate topics that were unfamiliar to students, minimizing the influence of prior knowledge. Topics included bees, fish, whales, frogs, butterflies, horses, volcanoes, ants, plants, rainbows, rainforests, the moon, hedgehogs, the ocean, and mountains. The FRE score can be easily and objectively verified by enabling the "Readability Statistics" option in Microsoft Word's settings.

The texts and comprehension questions were systematically piloted with five teacher-education students who had prior training in reading instruction. They reviewed all materials for accuracy, age appropriateness, clarity of wording, readability, and difficulty. In addition, they completed the comprehension tasks themselves to verify that each question could be answered directly from the text and to clearly measure their recall of key information. Items that were ambiguous or appeared to demand more than factual recall were identified and revised. This procedure ensured that the final set of texts and questions was accurate, age-appropriate, and reliably assessed literal comprehension as intended.

The texts generated in this manner were independently reviewed for accuracy and suitability by the first author and the student research assistant. They then met to discuss any suggestions for optimization that had resulted. Any modifications to the texts and the corresponding comprehension questions were ultimately made collaboratively and by consensus.

It should be noted that all comprehension questions targeted literal understanding rather than inferential or evaluative reasoning. This deliberate restriction ensured that improvements could be attributed to students' ability to apply the self-questioning strategy consistently, without confounding influences from background knowledge or higher-order interpretive skills. To promote transparent alignment, all items mapped onto explicit, text-stated propositions; no inference-based or evaluative questions were included.

Design

We adopted a single-subject multiple-baseline (AB) design across participants, as outlined by Horner et al. (2005). It included a baseline (A) phase followed by a phase of prompt fading intervention (B). To establish causality, the onset of the B phase was staggered over time for each participant, beginning after 3, 4, and 5 days, respectively. The start time for each participant was determined through random assignment. Evidence for the effectiveness of the treatment is derived from the emergence of improved ability to correctly answer comprehension questions related to the respective texts, coinciding with the onset of the staggered intervention phase. This suggests that the intervention was instrumental in facilitating these skill improvements.

Intervention Materials

For the intervention sessions, a series of texts at varying levels of difficulty was required to match the progression of students' skills throughout the intervention. These passages were adjusted in terms of word count, readability, and structure:

Easiest Level: Texts contained 75 words (excluding the title) with a FRE score of 100. These were divided into three sections, each containing one key piece of information followed by a corresponding comprehension question.

Next Level: Texts contained 100 words with a FRE score of 96. These were divided into five sections, each with one key piece of information and one corresponding question.

Third Level: Texts contained 130 words with a FRE score of 94. The structure mirrored the previous level, with five sections and five comprehension questions.

Final Level: Texts contained 150 words with a FRE score of 90. Like the previous levels, these were divided into five sections, each containing one key piece of information and a corresponding question.

Answers to the comprehension questions were provided at the end of each text to allow for accuracy checks. The topics for the intervention texts were also child-friendly, age-appropriate, and designed to minimize the influence of prior knowledge. All texts were formatted in a legible font and size and were clearly structured with headings and well-defined sections to facilitate reading.

In addition, a prompt hierarchy and question-type rubric guided instruction: (a) Teacher-Provided Question (TPQ; whole question supplied by teacher); (b) Partial Prompt (PP; teacher provides a stem such as "What/Who/Where… about …," student completes and answers); (c) Open Prompt (OP; teacher cues "Formulate a question about the main idea," student generates and answers); (d) Independent (IND; no prompt, student self-generates and answers). All questions targeted literal, text-based information; students were required to underline the evidence supporting each answer. The rubric included four criteria (identify key idea, well-formed WH-question, concise text-based answer, explicit evidence citation) to standardize expectations across sessions.

Procedures

A female graduate college student in special education served as the interventionist. She escorted the participants to a dedicated room within the school for each baseline or intervention session, ensuring a quiet and undisturbed working environment. All sessions were conducted individually every week and lasted approximately 20 minutes, plus about 5 minutes for performance assessment using the texts and comprehension questions described above. These passages were randomly selected from the available pool for each child. There was no predetermined time limit for the assessment; however, it never exceeded five minutes.

All procedures, including the handling of video recordings, were conducted in accordance with the approved ethical protocol. Recordings were used exclusively for the purposes of treatment fidelity checks and were stored securely in compliance with data protection regulations. Guardians were explicitly informed about this procedure during the consent process.

During the baseline phase, Adrian, Babu, and Cebrial were provided with engaging activities such as puzzles, riddles, and games to control for attention effects, followed by the performance assessment. Once the baseline phase was completed for a student—after three, four, or five probes—the training phase commenced.

Each intervention session followed the framework outlined in the study by Rouse et al. (2014). To facilitate the transition from teacher-generated to student-generated questioning, the "I do it, we do it, you do it" approach was implemented, incorporating the prompt fading procedure. In this study, "We do it" did not denote collaboration in a socio-cultural sense, but rather referred to highly structured, guided practice. Student participation consisted of responding to teacher prompts, practicing question formulation with immediate feedback, and gradually assuming greater responsibility for identifying key information in the text. Interaction remained asymmetrical, with the interventionist leading the process and the student rehearsing the steps, rather than engaging in co-construction of meaning. Prompt fading was performance-contingent and followed a priori mastery criteria at each prompt level (TPQ, PP, OP, and IND). Specifically, progression to a less supported level required, within a session, (i) ≥80% correct answers on the five section questions of a passage and (ii) generation of ≥2 out of 3 self-questions that met all rubric criteria (identify key idea, formulate a well-formed WH-question, provide a concise text-based answer, and cite/underline the exact evidence). Mastery had to be demonstrated across two consecutive passages at the current level. If performance fell below 70% correctness or fewer than two rubric-adequate self-questions were produced, the teacher maintained the current level or stepped back one level for additional guided practice. These decision rules distinguished the procedure from mere time-based "gradual release" and ensured performance-contingent fading. This ensured that support was systematically reduced, but within a teacher-led, explicit instruction framework rather than a collaborative dialogic exchange. A session log documented, for each student and passage, the prompt level, item-by-item correctness, the number and quality of self-generated questions (as per the rubric), and any step-up/step-back decisions. Prompts were faded only when students consistently demonstrated correct answers and clear, text-based question generation, rather than on a fixed schedule.

The first intervention session began with a particularly short and simple text (consisting of 75 words and a FRE score of 100). The interventionist demonstrated the self-questioning strategy, starting with the first passage and its corresponding question (I do it). She read the passage aloud clearly, slowly, and deliberately. The think-aloud was an authentic verbalization of the instructor's cognitive processes (not a verbatim script) and followed a components checklist—Identify → Ask → Locate →Verify → Evaluate—to ensure complete modeling while allowing spontaneous wording. For example, she paused to say, "What did I just read? The text tells me whales are mammals. How can I turn this into a question? Maybe: 'What kind of animals are whales?' Let me check again—yes, that fits." Model statements varied naturally across sessions (e.g., "Let me locate the sentence that proves it…," "Does my question match the main idea here?"), Moreover, no fixed phrasing was required; the checklist ensured inclusion of the five components rather than memorized lines. In this way, the modeling illustrated how to identify a key fact, formulate a relevant question, and verify the answer directly from the text. This exact procedure was repeated for the second and third passages, along with their corresponding questions, ensuring that the demonstration lasted no longer than two minutes. Thus, the think-aloud served to externalize expert processes (planning, monitoring, and evidence checking) rather than cueing students to mimic a memorized script.

Next, a new text of the same difficulty level was introduced, and the interventionist engaged the student in guided practice (We do it). For example, she instructed, "Read up to the first question. [The child read.] Good

job. Now read the question. [The child read the question.] What's the answer?" If the child provided an incorrect answer or remained silent, the text was reviewed together to ensure that the student arrived at the correct response and understood why it was correct. The interventionist consistently provided praise: "Well done! You worked hard, and that's why you got it right." If time permitted, a third text was addressed through the same scaffolded interaction. The interactional format was structured as a sequence of teacher prompts followed by student responses, without peer dialogue or reciprocal negotiation of meaning, which distinguishes the procedure from collaborative learning models in a socio-cultural tradition. During guided practice, the rubric was used formatively: the student first identified the key idea, then drafted a WH-question, answered in a few words, and underlined the evidence; the teacher supplied immediate, specific feedback tied to each rubric step (e.g., "Your question is clear, but let's anchor the answer by underlining the sentence that states it"). The session concluded with a 5-minute performance assessment, during which the respective participant worked independently on a randomly selected text. Afterward, the student was escorted back to their classroom.

In the second session, the teacher engaged the student with another simple text, following the "I do it" and "We do it" procedures as needed. If a participant demonstrated proficiency, the interventionist transitioned to the "You do it" phase, in which the child worked through a text independently. During this phase, the student was encouraged to pause regularly and ask themselves: "What did I just read? What do I need to answer? Okay, that's the point. Let me check again—yes, I know the answer." The interventionist provided support whenever the child needed assistance, always offering encouragement and positive reinforcement. As in the first session, the second session concluded with the 5-minute performance assessment. When students worked independently (IND), the teacher continued to record rubric scores and correctness to determine whether the IND level was maintained at the next session or whether stepped support (OP/PP) was needed.

Subsequent sessions followed a similar structure but featured progressively more challenging texts, increasing in difficulty to align with the complexity of the texts used in performance assessments. The interventionist consistently provided praise, such as: "You're getting better and better because you're putting in so much effort." As the treatment progressed, the interventionist offered coaching tailored to each student's specific areas for improvement. She highlighted instances where the participant had successfully applied strategies while also encouraging them to focus on overlooked areas. Feedback was constructive and supportive, helping the student refine their skills over time.

The "I do it, we do it, you do it" framework was applied flexibly throughout the intervention. For participants who showed rapid progress, the teacher transitioned more quickly to independent tasks. For those requiring additional support, earlier phases were revisited as needed. This individualized approach ensured that all students received the guidance necessary for success. It should be emphasized that although the term "We do it" might suggest collaborative engagement, in this study, it denoted scaffolded guided practice within an explicit instruction paradigm. Students did not engage in joint problem solving or dialogic co-construction of knowledge; instead, they practiced applying the modeled strategy with structured teacher support until they could perform independently. To support replicability, the session log template, the self-questioning rubric, and the think-aloud components checklist are available from the authors upon request.

Procedural Fidelity

The first author provided thorough training to the interventionist through three 45-minute video sessions. Additionally, he supplied her with a comprehensive script to guide her actions, ensuring full compliance with all specified requirements. Throughout the treatment period, the interventionist maintained regular communication with him. Training explicitly covered (a) the performance-contingent fading rules, (b) use of the self-questioning rubric, and (c) conducting authentic think-alouds using the five-component checklist (Identify–Ask–Locate–Verify–Evaluate).

To ensure adherence to methodological standards, a checklist outlining all essential components and procedures was developed (this checklist is available upon request from the authors). An observer (a school assistant) monitored 20% of the sessions to assess procedural fidelity. According to the standards set by Horner et al. (2005), observing and documenting treatment fidelity in at least 20% of sessions is considered sufficient to confirm the reliability and validity of the treatment. Specifically, 3 out of the 15 sessions per participant were observed to meet this requirement—the units under observation, whether during baseline or intervention phases, were randomly predetermined. Positioned discreetly, the observer focused primarily on ensuring compliance with the preset standards. Procedural fidelity was consistently

maintained at 100%. Within observed sessions, fidelity items included adherence to fading decision rules, correct use of the rubric steps, and implementation of the five think-aloud components. Observer notes also confirmed that modeling was unscripted and that movement between prompt levels adhered to the mastery criteria.

Social Validity

Immediately following the conclusion of the treatment, the interventionist conducted brief interviews with the participants to gather feedback on several key aspects of the training through the following questions: "Did you enjoy the intervention?", "Did it enhance your ability to comprehend text?", "Do you feel your skills in reading comprehension have improved?", "Has your attitude toward reading changed for the better?", "Would you be interested in continuing with the intervention?", and "Would you recommend this training to other children?" The interventionist made detailed handwritten notes to document the participants' responses.

For methodological transparency, we conducted a small-scale directed content analysis of these notes. A priori codes aligned with the six questions (enjoyment, perceived comprehension benefits, perceived skill growth, attitude change, interest in continuation, recommendation). The interventionist coded each response once; the first author independently reviewed all coded notes and audited coding decisions. Discrepancies were resolved by discussion, and an audit trail documented final codes and justifications. Given N = 3 and brief interviews, we report descriptive thematic summaries without calculating interrater coefficients; future research should incorporate standardized social validity instruments and audio-recorded interviews to enable formal reliability estimates.

Data Analysis

The data for each student was analyzed visually to evaluate the effect of the independent variable on the outcome variable (number of correctly answered comprehension questions). This followed a standard procedure described by Ledford and Gast (2024), which involved plotting data points on a graph to visually examine the level, trend, and variability of the data across the different phases of the study.

Effect sizes for the dependent variable were determined using Percentage of Data Exceeding the Median Trend (PEM-T) and Tau-U. PEM-T measures the proportion of data points in the intervention phase that exceed the projected baseline trend, making it well-suited for detecting gradual improvements. Tau-U, a non-parametric effect size measure, accounts for both level changes and trend differences between phases while controlling for baseline trends, offering a more precise estimate of intervention effects. Specifically, Tau-U (BA) adjusts for pre-existing trends and isolates the treatment effect, making it ideal for detecting gradual improvements in performance. Additionally, a hierarchical piecewise linear regression analysis was conducted to identify trends and patterns in the effectiveness of the intervention. These calculations were performed using the SCAN package for R by Wilbert and Lüke (2022).

To assess social validity, the interventionist reviewed the handwritten notes documenting the participants' responses, which offered insights into the students' perceptions of the treatment. Since audio recordings were not ideal for this context, the notes served as a practical alternative. This review allowed for an evaluation of the program's effectiveness and acceptability based on the participants' responses. As noted, the qualitative analysis followed a directed content-analytic approach, with coder auditing used to enhance credibility.

RESULTS

As shown in Figure 1, the training resulted in significant improvements in reading comprehension for all three students. Each participant demonstrated substantial progress in their performance, consistently achieving a value on each treatment day that was equal to or higher than the previous day.

In the case of Adrian, it can be observed that during the baseline phase, four out of ten comprehension questions for each text were answered correctly on two occasions (though only one question was answered correctly once). Therefore, the starting level was relatively high (M = 3.00; SD = 1.73). Afterward, performance initially dropped from 4 to 3, but then steadily increased, reaching the highest score of 10 by the end of the intervention. The PEM-T attained the highest possible value of 100, and Tau-U (BA) was 0.83. Regarding the PEM-T, it can be stated that all data points in the intervention phase surpass the expected baseline trend, indicating consistent improvement throughout the treatment period. A Tau-U (BA) of 0.83 is considered very high, meaning that after controlling for the baseline trend, 83% of all pairwise comparisons between data points from the baseline and intervention phases show an improvement.

Babu demonstrated extremely low reading comprehension skills during the baseline phase, answering questions correctly in only one out of four cases (M = 0.25;

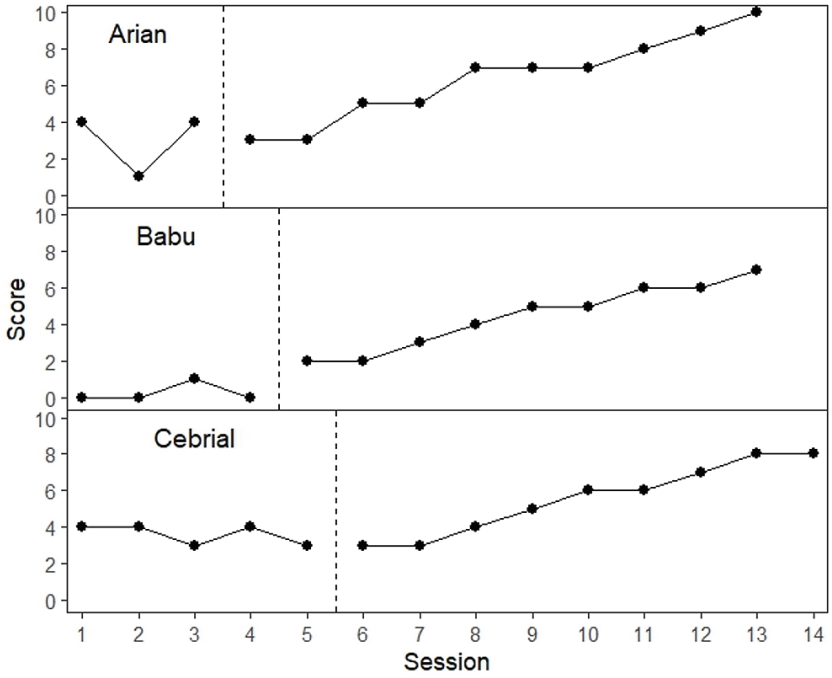

Figure 1. Performance improvements in reading comprehension across three students during baseline and intervention phases.

SD = 0.50). However, with the onset of the intervention, there was a gradual increase in points, and by the end, he reached a score of 7. The PEM-T was also at the maximum of 100, and Tau-U (BA) reached 0.91. Both values are exceptionally high.

Cebrial, like Adrian, began with relatively high performance. In three of the five baseline measurements, 4 out of 10 questions were answered correctly, while in two instances, it was 3 (M = 3.60; SD = 0.55). As with the other two students, the performance curve exhibited an upward trend from the beginning of the treatment phase, although the score initially remained at the baseline level in two of the initial measurements. In the final three measurements, 8 out of 10 questions were answered correctly each time. Cebrial achieved a slightly lower PEM-T value (89) than the other two students, but this can still be considered very high, reflecting clear improvement. The Tau-U (BA) was 0.75, which is undoubtedly an indicator of a substantial gain in performance.

Hierarchical piecewise linear regression analysis across Adrian, Babu, and Cebrial was also applied, and the results are provided in Table 1. This method enables the simultaneous assessment of multiple individual trajectories, capturing both individual and collective-level effects of the treatment. It allows the examination of differences in benefits among participants, providing a comprehensive understanding of the variability and consistency of effects across diverse individuals. In line with the research question outlined above, a gradual, rather than abrupt, performance increase was assumed. Therefore, only the slope effect was tested for significance.

Results from the hierarchical piecewise linear regression analysis provide estimates for three categories: intercept, trend, and slope. The intercept represents the estimated starting point or baseline value at the beginning of the study, with a value of 2.47 (B = 2.47), which is significantly different from zero, as indicated by the p-value of <.001. Trend refers to the rate of change in the outcome variable during the baseline phase. With a non-significant p-value of .81, the negative trend of -0.03 (B = -0.03) suggests no meaningful change during this phase. The slope reflects the rate of change during the

Table 1. **Hierarchical piecewise linear regression analysis across Adrian, Babu, and Cebrial**

	B	SE	t	p
Intercept	2.47	0.62	4.04	<.001
Trend	-0.03	0.11	-0.24	.81
Slope	0.76	0.14	5.45	<.001

treatment phase, with a significant positive value of 0.76 (B = 0.76) and a p-value of <.001, indicating a substantial and statistically significant increase in performance during the intervention.

Referring to the social validity of the intervention, all three students provided highly positive responses to each question. They expressed intense satisfaction with the prompt fading intervention and were confident that it had improved their text comprehension skills. Each student reported a positive change in their attitude toward reading and showed enthusiasm about their progress. Furthermore, they all indicated an interest in continuing with the training and would recommend it to other children. Overall, the feedback was consistently supportive, highlighting the effectiveness and appeal of the intervention. The directed content analysis yielded consistent endorsements across all six codes (enjoyment, perceived benefits, perceived skill growth, positive attitude shift, interest in continuation, recommendation), with no negative themes observed in this small sample.

DISCUSSION

Revisiting the Research Question: Key Findings and Interpretation

The present study aimed to investigate whether prompt fading could effectively foster self-questioning strategies to improve reading comprehension in upper elementary students with learning disabilities. The results indicate that such a structured intervention holds considerable promise, as all three participants demonstrated substantial gains in comprehension performance. This approach aligns with the broader principles of instructional scaffolding, which emphasize the importance of providing temporary support to learners and gradually reducing assistance as they gain competence (Belland, 2017). These findings are consistent with prior research on prompt fading (Rouse et al., 2014; Rouse-Billman & Alber-Morgan, 2019), which reported similarly positive outcomes among struggling readers. Moreover, the present study builds on the theoretical framework of the Gradual Release of Responsibility (Pearson & Gallagher, 1983; Fisher & Frey, 2021), supporting the notion that systematic withdrawal of external support can promote metacognitive engagement and greater autonomy in learning.

Beyond these two prompt-fading studies, recent quantitative syntheses show that explicit comprehension strategy instruction—including self-questioning and monitoring—yields reliable, often moderate, improvements for struggling readers, especially when embedded within multicomponent interventions and scaffolded practice (e.g., Daniel & Williams, 2021; Donegan & Wanzek, 2021; Denton et al., 2022). A 2024 Bayesian network meta-analysis further indicates that combinations involving questioning and monitoring elements tend to outperform single strategies, underscoring the value of structured gradual release when teaching metacognitive routines (Peng et al., 2024).

Building on these promising outcomes, the subsequent analysis offers more profound insights into the intervention's effectiveness and limitations. While the findings align with existing evidence, they must be interpreted with some caution due to the specific sample and study design. The results are not yet sufficient to generalize to broader educational contexts without further validation.

Interpretation of Results and Study Limitations

Robust statistical results support the improvements observed in the comprehension performance of all participants. High Tau-U and PEM-T values across participants indicate a substantial intervention effect, and the hierarchical piecewise linear regression shows a significant positive treatment slope (B = 0.76, p < .001). This pattern aligns with a growing literature underscoring the benefits of metacognitive strategy instruction for struggling readers (Gersten et al., 2001; Hall et al., 2022; Denton et al., 2022). Additionally, students' positive feedback regarding the perceived usefulness and benefits supports the intervention's practical relevance. Consistent with our gradual gains, meta-analytic work suggests that strategy instruction is most effective when embedded in systematic, teacher-led routines with explicit practice and fading supports rather than offered as a set of isolated tips (Donegan & Wanzek, 2021; Denton et al., 2022). Syntheses also highlight particular advantages for upper-elementary learners with reading difficulties—the population targeted here—when guided practice is paired with accountability for text-based evidence.

Several limitations warrant caution. First, the small sample and single-case multiple-baseline design constrain generalizability, despite the design's strength in demonstrating functional relations (Horner et al., 2005); therefore, replication with larger and more diverse samples is needed. Second, the absence of follow-up assessments means we cannot determine maintenance or generalization of strategy use. This limitation is especially consequential for metacognitive instruction, where durable effects should be demonstrated through maintenance probes and transfer to novel

expository materials and other genres (Gersten et al., 2001). Third, although all participants were emergent bilinguals, no standardized assessment of German proficiency was administered. L2 vocabulary, syntax, and background knowledge likely influenced learning and performance; therefore, future work should include standardized L2 measures and consider proficiency in analyses.

Finally, our exclusive use of multiple-choice items may have underrepresented deeper comprehension and inferential reasoning. While multiple-choice formats improve objectivity and comparability, they can constrain insight into students' cognitive processes (Willingham, 2006–2007). Complementary assessments—e.g., UDL-enhanced story mapping, short-answer prompts with required text evidence ("underline and explain"), open-ended questions, and observational measures—could yield a fuller picture of comprehension and metacognitive engagement (Narkon & Wells, 2013). Future studies should therefore combine multiple-choice with these formats to capture both accuracy and the quality of evidence-based reasoning.

Regarding social validity, participants reported positive experiences and perceived benefits. To increase methodological transparency and credibility, we conducted a small, directed content analysis of interview notes using a priori codes aligned with the interview questions, with an audit by the first author. Given the small sample size (N = 3) and brief interviews, we report descriptive thematic summaries. Future studies should employ validated social validity instruments and audio-recorded interviews to facilitate formal reliability estimates and more comprehensive qualitative analyses.

Implications for Practice and Future Research

Despite these limitations, the findings offer valuable insights for both research and practice. Prompt fading appears to be a promising strategy for fostering self-regulated learning and improving comprehension skills in multilingual and inclusive educational settings. For instance, teachers could integrate prompt fading into guided reading sessions, gradually encouraging students to generate questions and monitor their comprehension independently. As suggested by Donegan and Wanzek (2021), differentiated and flexible instructional approaches are critical for addressing the diverse challenges faced by students with learning difficulties. In classrooms with many L2 learners, pairing self-questioning with vocabulary preview and explicit instruction on expository text structures (e.g., cause–and–effect, compare–and–contrast) may further enhance access to informational content.

Future research should prioritize longitudinal designs to examine the stability and generalizability of the observed effects. Comparative studies assessing the relative efficacy of prompt fading compared to other evidence-based metacognitive interventions could refine our understanding of best practices in reading instruction. Additionally, integrating prompt fading with technology-based learning tools offers opportunities for scalable and adaptive interventions. For example, digital platforms that provide real-time feedback and adaptive learning pathways could support the gradual release of responsibility by enabling students to practice self-questioning independently. Apps focused on reading comprehension, combined with teacher guidance, could further facilitate personalized learning experiences.

CONCLUSION

This study provides encouraging evidence that prompt fading can be a practical approach to enhancing reading comprehension in students with learning disabilities. Although the small sample size and short duration warrant cautious interpretation, the findings highlight the potential of structured interventions, such as prompt fading, to promote metacognitive growth and foster self-regulated learning. Given its relatively straightforward application, this strategy could enrich existing literacy programs, especially in multilingual and inclusive classrooms. Future studies should incorporate standardized L2 proficiency measures, plan follow-up maintenance and generalization probes to new expository and narrative texts, and include mixed-format comprehension assessments to capture deeper understanding. Future research should aim to validate these results with larger, more diverse samples and investigate how prompt fading can be adapted to different educational settings and sustained over the long term.

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DECLARATION OF INTEREST STATEMENT

The authors reported no potential conflict of interest.

ETHICAL STATEMENT

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REFERENCES

Albuquerque, A. R. de., & Melo, R. M. de. (2023). *Contributions of behavior analysis to reading and writing comprehension*. Springer.

Axelrod, J. (2019). Addressing reading problems: It's complicated. In G. Macklem & A. Silva (Eds.), *Lessons from school psychology: Practical strategies and evidence-based practice for professionals and parents* (pp. 75–87). Routledge.

Belland, B. R. (2017). Instructional scaffolding: Foundations and evolving definition. In B. R. Belland (Ed.), *Instructional scaffolding in STEM education: Strategies and efficacy evidence* (pp. 17–53). Springer.

Bruggink, M., Swart, N., van der Lee, A., & Segers, E. (2025). *Teaching reading comprehension in a digital world: Evidence-based contributions using PIRLS and digital texts*. Springer. https://doi.org/10.1007/978-3-031-75121-9

Cain, K., Compton, D. L., & Parrila, R. K. (2017). *Theories of reading development*. John Benjamins Publishing Company.

Catts, H. W. (2018). The simple view of reading: Advancements and false impressions. *Remedial and Special Education, 39*(5), 317–323. https://doi.org/10.1177/0741932518767563

Daniel, J., & Williams, K. J. (2021). Self-questioning strategy for struggling readers: A synthesis. *Remedial and Special Education, 42*(4), 248–261. https://doi.org/10.1177/0741932519880338

Denton, C. A., Hall, C., Cho, E., Cannon, G., Scammacca, N., & Wanzek, J. (2022). A meta-analysis of the effects of foundational skills and multicomponent reading interventions on reading comprehension for primary-grade students. *Learning and Individual Differences, 93*, 102062. https://doi.org/10.1016/j.lindif.2021.102062

Donegan, R. E., & Wanzek, J. (2021). Effects of reading interventions for upper elementary struggling readers: A look at recent research. *Reading and Writing, 34*(8), 1943–1977. https://doi.org/10.1007/s11145-021-10123-y

Fisher, D., & Frey, N. (2021). *Better learning through structured teaching: A framework for the gradual release of responsibility*. ASCD.

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research, 71*(2), 279–320. https://doi.org/10.3102/00346543071002279

Gersten, R., Haymond, K., Newman-Gonchar, R., Dimino, J., & Jayanthi, M. (2020). Meta-analysis of the impact of reading interventions for students in the primary grades. *Journal of Research on Educational Effectiveness, 13*(2), 401–427. https://doi.org/10.1080/19345747.2019.1689591

Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education, 7*(1), 6–10. https://doi.org/10.1177/074193258600700104

Grünke, M., & Cavendish, W. M. (2016). Learning disabilities around the globe: Making sense of the heterogeneity of the different viewpoints. *Learning Disabilities: A Contemporary Journal, 14*(1), 1–8.

Hall, C., Dahl-Leonard, K., Cho, E., Solari, E., Capin, P., Conner, C., Henry, A., Cook, L., Hayes, L., Vargas, I., Richmond, C., & Kehoe, K. (2022). Forty years of reading intervention research for elementary students with or at risk for dyslexia: A systematic review and meta-analysis. *Reading Research Quarterly, 58*(2), 285–312. https://doi.org/10.1002/rrq.477

Hasbrouck, J., & Tindal, G. (2017). An update to compiled ORF norms (Technical Report No. 1702). *Behavioral Research and Teaching*. University of Oregon.

Hitchcock, J. H., Kratochwill, T. R., & Chezan, L. C. (2015). What works clearinghouse standards and generalization of single-case design evidence. *Journal of Behavioral Education, 24*(4), 459–469. https://doi.org/10.1007/s10864-015-9224-1

Hoffman, J. V. (2009). In search of the "simple view" of reading comprehension. In S. E. Israel & G. G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 54–66). Routledge.

Hoover, W. A. (2024). The simple view of reading and its broad types of reading difficulties. *Reading and Writing: An Interdisciplinary Journal, 37*(9), 2277–2298. https://doi.org/10.1007/s11145-023-10471-x

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children, 71*(2), 165–179. https://doi.org/10.1177/001440290507100203

Kintsch, W., & van Dijk, T. A. (1978). Toward a model of text comprehension and production. *Psychological Review, 85*(5), 363–394. https://content.apa.org/doi/10.1037/0033-295X.85.5.363

Ledford, J. R., & Gast, D. L. (2024). *Single case research methodology: Applications in special education and behavioral sciences (4th ed.)*. Routledge.

Matson, J. L. (2023). *Handbook of applied behavior analysis*. Springer.

Minnery, A., & Smith, A. T. (2024). *A cyclical model of literacy learning: Expanding the gradual release of responsibility*. Teachers College Press.

Morgan, P. L., Farkas, G., & Wu, Q. (2012). Do poor readers feel angry, sad, and unpopular? *Scientific Studies of Reading, 16*(4), 360–381. https://doi.org/10.1080/10888438.2011.570397

Narkon, D. E., & Wells, J. C. (2013). Improving reading comprehension for elementary students with learning disabilities: UDL enhanced story mapping. *Preventing School Failure: Alternative Education for Children and Youth, 57*(4), 231–239. http://dx.doi.org/10.1080/1045988X.2012.726286

National Literacy Institute. (2024). *Literacy statistics 2022-2023*. National Literacy Institute.

Neitzel, A. J., Lake, C., Pellegrini, M., & Slavin, R. E. (2022). A synthesis of quantitative research on programs for struggling readers in elementary schools. *Reading Research Quarterly, 57*(1), 149–179. https://doi.org/10.1002/rrq.379

Organisation for Economic Co-operation and Development. (2023). *Education at a glance 2023: OECD indicators.* OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/09/education-at-a-glance-2023_581c9602/e13bef63-en.pdf

Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology, 8*(3), 317–344. https://doi.org/10.1016/0361-476X(83)90019-X

Peng, P., Wang, W., Filderman, M. J., Zhang, W., & Lin, L. (2024). The active ingredient in reading comprehension strategy intervention for struggling readers: A Bayesian network meta-analysis. *Review of Educational Research, 94*(2), 228-267. https://doi.org/10.3102/00346543231171345

Rouse, C. A., Alber–Morgan, S. R., Cullen, J. M., & Sawyer, M. (2014). Using prompt fading to teach self–questioning to fifth graders with LD: Effects on reading comprehension. *Learning Disabilities Research & Practice, 29*(3), 117–125. https://doi.org/10.1111/ldrp.12036

Rouse-Billman, C., & Alber-Morgan, S. (2019). Teaching self-questioning using systematic prompt fading: Effects on fourth graders' reading comprehension. *Preventing School Failure: Alternative Education for Children and Youth, 63*(4), 352–358. https://doi.org/10.1080/1045988X.2019.1619508

Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97–100). Guilford Press.

Snow, C. E. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Science and Technology Policy Institute.

Vaughn, S. (2024). *Strategies for teaching students with learning and behavior disabilities (11th ed.)*. Pearson.

Wanzek, J., Stevens, E. A., Williams, K. J., Scammacca, N., Vaughn, S., & Sargent, K. (2018). Current evidence on the effects of intensive early reading interventions. *Journal of Learning Disabilities, 51*(6), 612–624. https://doi.org/10.1177/0022219418775110

Wilbert, J., & Lüke, T. (2022). *Scan: Single-Case Data Analyses for Single and Multiple Baseline Designs* [Computer software]. University of Potsdam.

Willingham, D. T. (2006/2007). The usefulness of brief instruction in reading comprehension strategies. *American Educator, 30*(4), 39–50. https://www.aft.org/sites/default/files/media/2014/CogSci.pdf