



Developing Early Readers: A Study on the Effectiveness of Targeted Reading Programs for Kindergarten to Second Grade in Rural Alaskan Settings

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Santiago B. Hubahib Jr.

Koyuk Malimuit School, Bering Strait School District, Koyuk, Alaska, USA
<https://orcid.org/0009-0007-8143-9857>

Jercellyn Joy G. Dagoc

Aniguiin School, Bering Strait School District, Alaska, USA
<https://orcid.org/0009-0004-3036-7038>

Loida Marie S. Gumera

Aniguiin School, Bering Strait School District, Alaska, USA
<https://orcid.org/0009-0009-0541-6850>

Marlene G. Padigos

Lower Kuskokwim School District, Bethel, Alaska, USA
<https://orcid.org/0009-0001-6956-6112>

Ronalyn Cuyno

Paul T. Albert Memorial School, Tununak, Alaska, USA
<https://orcid.org/0009-0001-4114-9018>

Abstract:

This study examines the effectiveness of targeted reading programs for early readers (Kindergarten to Second Grade) in rural Alaskan settings, with a specific focus on dyslexia interventions. Through document analysis, literature review, and examination of statewide initiatives, it identifies key challenges and successful strategies. Targeted programs like Alaska Reading First and district-level interventions have shown positive impacts on reading proficiency, emphasizing evidence-based instructional approaches. Challenges include limited resources, teacher training gaps, and the prevalence of dyslexia among students. Statewide initiatives such as the Alaska Education Challenge and interventions like the STRIVE Dyslexia Program aim to address these challenges. Success stories highlight the significant impact of dyslexia interventions on improving reading outcomes. Early identification and evidence-based interventions are crucial for supporting students with dyslexia. Overall, this study underscores the importance of tailored support and evidence-based practices to enhance early reading skills in rural Alaskan settings.

Keywords: early reading, targeted reading programs, rural Alaska, dyslexia interventions, reading proficiency, evidence-based instruction

Introduction:

Reading proficiency is fundamental for academic achievement and overall success in life (Snow et al., 1998; National Reading Panel, 2000). However, many students, especially in rural areas, face challenges in developing strong reading skills, which can have long-lasting consequences (Shaywitz, 2003; Shaywitz et al., 1990). In Alaska, where educational disparities persist, improving early reading proficiency is crucial for ensuring all students have equal opportunities for success.

Research indicates that early intervention and evidence-based reading instruction are key factors in addressing reading difficulties (Torgesen et al., 2001; Ehri et al., 2001). Despite this knowledge, rural areas often lack access to effective reading programs and resources (Allington, 2013; National Research Council, 2012). Understanding the effectiveness of targeted reading programs for kindergarten to second grade students in rural Alaskan settings is essential for improving literacy outcomes and narrowing achievement gaps.

This study aims to examine the effectiveness of targeted reading programs in rural Alaskan settings and provide insights into best practices for early reading intervention. By evaluating existing programs and initiatives, this research seeks to inform policymakers, educators, and stakeholders about strategies to enhance early reading proficiency and support student success.



Literature Review:

Reading proficiency is a critical skill that forms the basis of academic success and lifelong learning. This literature review examines research on early reading development, challenges faced by students in rural settings, effectiveness of targeted reading programs, and initiatives to improve reading outcomes, particularly focusing on Alaska.

Research underscores the importance of early reading development and its impact on later academic achievement (Snow et al., 1998). Children who struggle with reading in the early grades often face long-term consequences (Shaywitz et al., 1992). In rural areas, students may encounter unique challenges such as limited access to resources, teacher shortages, and geographic isolation (Allington, 2013).

Dyslexia, a common reading difficulty, affects students' ability to decode words and affects reading fluency and comprehension (Shaywitz, 2003). Despite its prevalence, dyslexia often goes undiagnosed or unsupported in many educational settings (Shaywitz et al., 1990).

Evidence suggests that targeted reading programs can significantly improve early reading skills. Programs focusing on phonemic awareness, phonics instruction, vocabulary development, and comprehension strategies have shown positive outcomes (Ehri et al., 2001). Intensive interventions tailored to students' needs can lead to substantial gains in reading proficiency (Torgesen et al., 2001).

In Alaska, initiatives like the Alaska Reading First program aimed to improve reading instruction in K-3 grades. While such programs showed initial progress, sustaining improvements remained a challenge (Alaska Department of Education and Early Development, 2017).

Alaska has recognized the need to address reading proficiency through statewide initiatives. The Alaska Education Challenge prioritizes improving reading outcomes, particularly by third grade (Alaska Department of Education and Early Development, 2017). Recent legislation like SB 104 focuses on establishing evidence-based curriculum and providing training to educators (Alaska State Legislature, 2018).

District-level initiatives, such as those in the Matanuska Susitna Borough School District, have demonstrated success through multi-tiered support systems and evidence-based reading materials (Matanuska Susitna Borough School District, n.d.).

Dyslexia legislation in other states has emphasized early screening, teacher training, and intervention strategies (Gentry & Ouellette, 2019). States like Oregon have mandated universal screening for dyslexia to ensure early identification and support (Oregon State Legislature, 2017).

Intensive interventions targeting dyslexia, such as the STRIVE program in rural Alaska, have shown promising results in improving reading skills among students with dyslexia (Alaska Department of Education and Early Development, 2017).

Early reading proficiency is crucial for academic success and future opportunities. While challenges exist, targeted reading programs and statewide initiatives play a vital role in improving reading outcomes, especially in rural areas like Alaska. Addressing dyslexia through awareness, screening, and evidence-based interventions is essential for supporting all students in developing strong reading skills.

Methodology:

Document analysis was conducted to gather relevant information on targeted reading programs, challenges in early reading development, statewide initiatives, and interventions related to improving reading outcomes in rural Alaskan settings. The documents reviewed included academic papers, government reports, legislative documents, and program evaluations. Google Scholar, government education websites, and online databases were searched using keywords such as "early reading development," "reading programs," "Alaska education initiatives," and "dyslexia interventions."

A comprehensive literature review was conducted to synthesize existing research on early reading development, challenges faced by students in rural settings, effectiveness of targeted reading programs, and initiatives to improve reading outcomes. Peer-reviewed articles, books, reports, and relevant studies were searched and analyzed. Google Scholar and academic databases such as ERIC and PubMed were utilized for literature search.

Relevant documents were selected based on their significance to the study objectives. These included research articles, government reports, educational policies, and program evaluations. Key information regarding early reading development, challenges, targeted interventions, statewide initiatives, and dyslexia interventions was



extracted from the selected documents. The extracted data were analyzed to identify common themes, trends, and key findings related to the effectiveness of reading programs and initiatives in rural Alaskan settings.

The findings from document analysis and literature review were synthesized to provide a comprehensive overview of the factors influencing early reading development, challenges faced by students, effectiveness of reading programs, and initiatives undertaken to improve reading outcomes in rural Alaskan settings.

Findings and Discussion:

Effectiveness of Targeted Reading Programs:

Early literacy development is crucial for academic success and future opportunities. In rural Alaskan settings, targeted reading programs have shown effectiveness in enhancing early reading skills among kindergarten to second-grade students. Analysis of various programs indicates significant improvements in reading proficiency among participants, emphasizing evidence-based instructional approaches (Kilag et al., 2024).

The Alaska Reading First initiative stands out as one of the prominent programs aimed at improving early reading skills. This initiative, implemented from 2003 to 2009, focused on enhancing reading instruction in K-3 grades. Research has shown positive outcomes of the Alaska Reading First program in improving reading proficiency among students (Alaska Department of Education & Early Development, 2009).

District-level interventions complement statewide initiatives and have contributed to improving reading outcomes. These interventions often emphasize components such as phonemic awareness, phonics, fluency, comprehension, and vocabulary development, aligning with evidence-based practices in literacy instruction (Matanuska-Susitna Borough School District, 2020). For example, the Matanuska-Susitna Borough School District implemented a multi-tiered RTI approach and standardized curriculum with evidence-based reading materials, resulting in sustained improvement in reading proficiency and reduced rates of learning disabilities (Matanuska-Susitna Borough School District, 2020).

Research supports the effectiveness of evidence-based instructional approaches in early literacy. A study by Ehri et al. (2001) emphasized the importance of phonemic awareness and phonics instruction in early reading acquisition. Similarly, National Reading Panel (2000) findings underscored the significance of phonics instruction, fluency training, vocabulary development, and comprehension strategies in improving reading outcomes among young children.

Moreover, interventions focusing on phonological awareness and phonics have shown long-term benefits. The study by Torgesen et al. (1999) demonstrated that early intervention targeting these areas significantly improved reading skills and reduced the risk of reading difficulties persisting into later grades.

Additionally, programs that integrate technology with evidence-based instruction have shown promise. For instance, digital literacy programs like Lexia Core5 have been effective in improving reading outcomes among early elementary students (Lexia Learning, 2020). These programs provide personalized instruction targeting individual student needs in phonics, fluency, vocabulary, and comprehension.

Furthermore, culturally relevant interventions have been effective in improving reading proficiency, especially in diverse rural communities. Initiatives like the STRIVE Dyslexia Program in rural Southeast Alaska integrated culturally appropriate practices with evidence-based approaches, resulting in notable improvements in reading skills among participating students (Alaska Department of Education & Early Development, 2014).

Targeted reading programs in rural Alaskan settings have proven effective in improving early reading skills among kindergarten to second-grade students (Kilag et al., 2024). Evidence-based instructional approaches focusing on phonemic awareness, phonics, fluency, comprehension, and vocabulary development play a crucial role in these programs.

Challenges in Early Reading Development:

Early reading development poses various challenges, including limited resources, gaps in teacher training, and the prevalence of dyslexia among students. Document analysis and literature review underscored these challenges, indicating that many students encounter difficulties in reading acquisition, which are further exacerbated by factors such as remote location and limited access to specialized support services.

One of the primary challenges identified is the lack of resources in rural Alaskan settings. Remote communities often face resource constraints, including limited access to updated instructional materials, technology, and qualified personnel (Alaska Department of Education & Early Development, 2017). These resource limitations hinder the implementation of effective reading programs and interventions.



Teacher training gaps present another significant challenge. Many educators lack sufficient training in evidence-based reading instruction, including methods for addressing diverse learning needs such as dyslexia (Al Masud et al., 2020). Research suggests that teachers' unfamiliarity with the science of reading contributes to ineffective instructional practices (Moats, 1994).

Moreover, the prevalence of dyslexia poses a considerable barrier to early reading success. Dyslexia is a neurobiological condition that affects reading fluency, decoding, and spelling skills (Shaywitz, 1998). Studies indicate that dyslexia affects up to 20% of students, making it crucial to address in early reading instruction (Lyon et al., 2003).

Limited access to specialized support services further compounds reading challenges for students with dyslexia. In rural areas, there may be a shortage of dyslexia specialists, diagnostic tools, and intervention programs (Alaska Department of Education & Early Development, 2017). This lack of support can delay identification and appropriate intervention for students with dyslexia.

Additionally, cultural and linguistic diversity adds complexity to early reading instruction. Many rural Alaskan communities have diverse populations with varying language backgrounds, requiring culturally responsive instructional approaches (Jester & Fickel, 2013). Failure to address linguistic diversity can create additional barriers to reading proficiency.

Furthermore, the vast geographical spread of rural communities poses logistical challenges in delivering effective reading interventions. Students in remote areas may have limited access to libraries, literacy programs, or internet connectivity, hindering their exposure to reading materials and educational resources (Alaska Department of Education & Early Development, 2017).

Addressing these challenges requires a comprehensive approach involving policy changes, teacher training initiatives, and targeted interventions. Providing professional development opportunities for teachers in evidence-based reading instruction is essential (Moats, 1994). Moreover, increasing access to dyslexia screening and intervention services, even in remote areas, is crucial for early identification and support (Alaska Department of Education & Early Development, 2017).

Challenges in early reading development in rural Alaskan settings include limited resources, gaps in teacher training, and the prevalence of dyslexia among students. Addressing these challenges is vital to ensure all students have equitable opportunities for early reading success.

Statewide Initiatives and Interventions:

Statewide initiatives and interventions play a crucial role in addressing early reading challenges in rural Alaskan settings. This section explores key initiatives such as the Alaska Education Challenge and targeted programs like the STRIVE Dyslexia Program, along with recent legislative efforts focusing on evidence-based curriculum and teacher training.

The Alaska Education Challenge (Alaska Department of Education & Early Development, 2017) represents a comprehensive effort to improve educational outcomes across the state. It prioritizes three main goals: increasing student success, cultivating safety and well-being, and supporting responsible and reflective learners. As part of this initiative, there has been a concerted effort to enhance early literacy instruction and support mechanisms.

Recent legislative efforts have also been instrumental in addressing early reading challenges. For instance, Alaska's legislation has increasingly emphasized evidence-based curriculum and teacher training to improve reading instruction quality (Alaska State Legislature, 2019). Such legislative measures aim to ensure that educators are equipped with the knowledge and resources needed to effectively teach reading.

One notable intervention program is the STRIVE Dyslexia Program. This program focuses on early identification, intervention, and support for students with dyslexia in rural Alaskan settings (Wolfe et al., 2024). The program provides professional development for educators, dyslexia screening for students, and evidence-based intervention strategies tailored to individual needs.

Evidence suggests that targeted interventions like the STRIVE Dyslexia Program have been effective. Research conducted by Wolfe et al. (2024) demonstrated significant improvements in reading outcomes among students who received intervention through the program. Early screening and intervention have shown promise in mitigating the impact of dyslexia on reading proficiency (Abella, et al., 2024).

Moreover, the Alaska Reading First initiative has been a cornerstone in promoting early literacy skills. This federally funded program aimed to improve reading instruction in high-need schools, emphasizing scientifically based



reading practices (Alaska Department of Education & Early Development, 2006). Although the initiative faced challenges, it contributed to the implementation of evidence-based strategies in many rural schools.

In addition to these statewide initiatives, district-level interventions have been implemented to address early reading challenges. Many districts have adopted multi-tiered systems of support (MTSS) frameworks to provide targeted interventions for struggling readers (Alaska Department of Education & Early Development, 2017). These frameworks typically include universal screening, progress monitoring, and evidence-based interventions.

Despite these efforts, challenges persist in implementing statewide initiatives and interventions effectively. Limited funding, geographical barriers, and the need for ongoing professional development remain significant hurdles (Alaska Department of Education & Early Development, 2017). Furthermore, ensuring cultural relevance and sensitivity in interventions is essential in diverse rural communities (Jester & Fickel, 2013).

Statewide initiatives and interventions such as the Alaska Education Challenge, legislative efforts, and targeted programs like the STRIVE Dyslexia Program play a vital role in improving early reading outcomes in rural Alaskan settings. These initiatives emphasize early screening, evidence-based instruction, and support mechanisms to address reading difficulties effectively.

Impact of Dyslexia Interventions:

Dyslexia interventions play a crucial role in improving reading outcomes for students with dyslexia, particularly in rural Alaskan settings. This section explores the impact of interventions on reading abilities, emphasizing the significance of early identification and evidence-based approaches.

Ambrose's success story, as highlighted in the study, exemplifies the positive impact of dyslexia interventions. Ambrose, a second-grade student from a rural Alaskan community, struggled with reading until he received targeted intervention through the STRIVE Dyslexia Program. Following intervention, Ambrose showed significant progress in his reading abilities, indicating the effectiveness of tailored support (Wolfe et al., 2024).

Early identification of dyslexia is crucial for providing timely interventions. Research indicates that early screening can lead to better outcomes for students with dyslexia (Fletcher et al., 2007). In rural areas where access to specialized services may be limited, early identification becomes even more critical to prevent reading difficulties from persisting.

Evidence-based interventions tailored to the needs of students with dyslexia are essential for improving reading proficiency. The STRIVE Dyslexia Program, implemented in rural Alaskan settings, offers such interventions. It includes structured literacy instruction, multisensory teaching methods, and individualized support (Wolfe et al., 2024).

Research has shown positive outcomes resulting from dyslexia interventions. A study by Wolfe et al. (2024) demonstrated significant improvements in reading skills among students who received intervention through the STRIVE Dyslexia Program. These improvements include gains in phonological awareness, decoding skills, and reading fluency.

Parental involvement is another crucial factor in the success of dyslexia interventions. Parents play a vital role in supporting their child's reading development and reinforcing intervention strategies at home (Miciak et al., 2015). In rural communities, where access to educational resources may be limited, involving parents becomes even more critical.

Equipping educators with the knowledge and skills to support students with dyslexia is essential. Professional development programs focused on dyslexia awareness and evidence-based instructional practices can improve teacher efficacy in addressing the needs of struggling readers (Ehri et al., 2001).

Community support and collaboration are integral in ensuring the success of dyslexia interventions. Partnerships between schools, communities, and local organizations can enhance access to resources and support services for students with dyslexia (Coyne et al., 2013).

Dyslexia interventions have a significant impact on improving reading outcomes for students in rural Alaskan settings. Early identification, tailored interventions, parental involvement, professional development for educators, and community support are key components of effective dyslexia intervention programs. Ambrose's success story underscores the importance of targeted support in empowering students with dyslexia to achieve reading success.

Conclusion:



The study investigated the effectiveness of targeted reading programs and interventions for early readers in rural Alaskan settings, with a particular focus on dyslexia. Through document analysis, literature review, and examination of statewide initiatives, several key findings emerged.

Targeted reading programs, such as the Alaska Reading First initiative and district-level interventions, have shown effectiveness in improving early reading skills among kindergarten to second-grade students. These programs emphasize evidence-based instructional approaches, including phonemic awareness, phonics, fluency, comprehension, and vocabulary development.

Challenges in early reading development, including limited resources, teacher training gaps, and the prevalence of dyslexia, were identified. Many students face difficulties in reading acquisition, exacerbated by factors such as remote location and limited access to specialized support services.

Statewide initiatives such as the Alaska Education Challenge and interventions like the STRIVE Dyslexia Program have been implemented to address reading difficulties. These initiatives underscore the importance of evidence-based curriculum, early screening, intervention, and support for students with reading difficulties.

The positive impact of dyslexia interventions on improving reading outcomes for students was highlighted. Success stories, supported by interventions like the STRIVE Dyslexia Program, emphasize the importance of early identification and tailored support for students with dyslexia.

In conclusion, targeted reading programs and interventions play a crucial role in improving early reading skills among students in rural Alaskan settings. However, challenges such as resource limitations and the prevalence of dyslexia need to be addressed. Statewide initiatives focusing on evidence-based practices and early intervention are vital for ensuring that all students receive the support they need to become proficient readers. Further research is needed to explore additional strategies for supporting early readers in rural areas and to evaluate the long-term effectiveness of interventions on reading outcomes.

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