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Multi-Tiered System of Supports for Homeschool Families in a Home School Assistance Progra

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Multi-Tiered System of Supports for Homeschool Families in a Home School Assistance Program

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Capstone Project: A Program Improvement Plan

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Abstract

Systematic, explicit reading instruction including phonemic awareness, phonics, fluency, vocabulary, and comprehension has been shown to be effective at teaching nearly all children to read. The Multi-Tiered System of Supports (MTSS) framework is used in schools for identifying students who need supplemental instruction and ascertaining their areas of weakness. It is also used for monitoring the progress of students and facilitating ongoing instructional decisions. Homeschool families typically do not have access to scholarly research about effective reading instruction or to tools for determining if their children are making adequate progress or if a change in instruction is needed. The Knoxville Home School Assistance Program (KHSAP) serves approximately 60 students in Knoxville, Iowa. Parents in the program seek confirmation their children are making adequate progress, but KHSAP staff are not in a position to definitively give affirmation. The purpose of this program improvement plan is to create an MTSS framework within KHSAP to provide families in the program with access to education about evidence-based reading instruction, universal screening, progress monitoring, and the support of KHSAP staff in making instructional decisions.

Keywords: homeschool, multi-tiered system of supports, reading intervention, universal screening, progress monitoring, structured literacy, the science of reading, response-to-intervention

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Multi-Tiered System of Supports for Homeschool Families in a Home School Assistance Program

The number of homeschooled students in the United States has increased dramatically over the past fifty years. In the early 1970s, there were approximately 13,000 homeschooled students in the United States. By 2017, the number had grown to roughly 2.4 million (Ray, 2020). The COVID-19 pandemic accelerated the growth of homeschooling exponentially, as it thrust nearly every American family into some form of schooling at home for a time and ushered in a new era of flexible, collaborative, technology-enriched home education. This unprecedented shift opened the door for many families to continue to seek ways to educate their children outside the confines of traditional public or private schools, even after pandemic restrictions had passed and schools had reopened their doors for in-person education (Dwyer, 2022).

Parents who decide to educate their children at home bear a great responsibility. Although many of the parents who take on this responsibility do not have a background or training in education, the few researchers who have studied homeschooling have shown it can be an effective method of educating children (Ray, 2020). Nonetheless, many people who have exposure to multiple homeschool families, this author included, are aware of cases of homeschool educational failures. There are children whose parents, though well intentioned, have been unable to teach them to read. Sometimes, as in the case of Jack (pseudonym), a boy tutored by the author seven years ago, parents have taken their child to see multiple specialists and have received multiple diagnoses—Jack has been diagnosed with auditory processing disorder, visual processing disorder, ADHD, dyslexia, and autism from various professionals—but they have never received the necessary support to help their child learn to read. When Jack was in the fourth grade, his parents sent him to the public school where he was enrolled in special education, but he was not able to close the gap with his peers and become a fluent reader.

In cases such as Jack's, it is tempting to blame the parents for failing to educate their child appropriately or, at the very least, for failing to realize earlier their child needed special education. The

problem is, there is not a system currently in place to help homeschool parents recognize when a child is falling behind in early literacy skills or to help them design an evidence-based plan of instruction for their child. If a child has undetected dyslexia, it might be years before his or her parents discern there is a problem.

There is not a universally accepted definition of dyslexia, although it is generally accepted it is a language disorder that affects, amongst other things, a person's ability to read. The lack of an accepted definition means an accurate percentage of students who are affected by the reading disorder is elusive. However, it is estimated as many as 20% of students might be afflicted to some degree (Wagner et al., 2020). If this estimate is correct, there are approximately half a million students with dyslexia being homeschooled in the United States. In the Knoxville Home School Assistance Program (KHSAP) in Knoxville, Iowa, there may be as many as 12 out of 60 students who are struggling to learn to read because of dyslexia. These students are at risk of not becoming proficient readers if their parents do not ensure they are receiving the appropriate instruction.

The purpose of this program improvement plan is to establish a multi-tiered system of supports (MTSS) for KHSAP. This system will educate parents about what an evidence-based, structured literacy program is, help parents recognize if their child is at risk of falling behind in reading, help parents develop and implement a plan for supplemental instruction when needed, and help them detect if their child might need special education through the public school. The research in this paper demonstrates the most effective way to teach children to read is through explicit, systematic instruction in phonological awareness, phonics, fluency, vocabulary, and comprehension, and the MTSS framework is effective at identifying students who are at risk of falling behind so they can receive targeted instruction in their areas of weakness and learn to read proficiently. The research also demonstrates for a structured literacy program to be effective, teachers must be appropriately trained to implement the reading instruction, to monitor student progress, and make evidence-based decisions regarding changes to students' educational plans. Although the research has focused solely on students in traditional schools, it stands to reason the

same principles of effective instruction apply to students in a classroom would apply to students in a homeschool. KHSAP is uniquely positioned to provide parents with the knowledge, tools, and support to implement a structured literacy program will optimize the likelihood all homeschooled students in the program will learn to read proficiently.

The research for this project was done using the ProQuest and ERIC databases through Northwestern College of Orange City, Iowa, and Google Scholar. Included are 35 peer-reviewed, scholarly journal articles and five government publications. Of the journal articles, 13 were published within the past five years, and 23 were published within the past ten years. The government publications include meta-analyses and guidance on reading instruction, MTSS, and response to intervention (RTI). The literature review gives an overview of the components of evidence-based literacy instruction, demonstrates the effectiveness of reading interventions, explores some of the elements of structured literacy which are given less attention than alphabetic (phonological awareness and phonics), and discusses effective ways to educate teachers and parents who are instructing children in literacy.

Review of the Literature

Foundations of Evidence-Based Literacy Instruction

National Reading Panel

In 1997, the National Reading Panel (NRP) was formed by Congress to research and report on effective methods of teaching children to read. The findings of this report were to be disseminated to schools for the purpose of improving reading instruction in the United States. In their meta-analysis, the panelists determined phonemic awareness and phonics were critical components of reading instruction in alphabetic; repeated oral reading with feedback and guidance were necessary for learning to read fluently; and vocabulary instruction, text comprehension instruction, and the modeling of thinking processes encourage interaction with the text were important for developing reading comprehension. It was also determined appropriate teacher education was necessary to improve student achievement. The NRP report, published in 2000, marked a shift in thinking about reading instruction, as the panel adopted the

"evidence-based methodological standards…normally used in research studies of the efficacy of interventions in psychological and medical research" (Langenberg et at., 2000, p. 1-5).

Simple View of Reading

Complementary to the findings of the NRP was a model developed by Gough and Tunmer (1986) called the Simple View of Reading (SVR) (see Figure A2). The SVR used the following algebraic equation to explain reading comprehension: Decoding (D) x Language Comprehension (LC) = Reading Comprehension (RC). Several studies have confirmed the general validity of the SVR model for explaining much of the variance in reading comprehension in English as well as other languages (Aouad & Savage, 2009; Florit & Cain, 2011; Catts, 2018). Against the backdrop of the whole language v. phonics debate, the SVR model was used to support the NRP findings phonics should be taught explicitly and systematically.

What Works Clearinghouse Practice Guides

As studies continued to confirm and expand upon the findings of the NRP, the U.S. Department of Education's Institute of Education Sciences (IES) and What Works Clearinghouse (WWC) jointly published guides to share evidence-based practices for teaching reading with educators. In 2010, *Improving Reading Comprehension in Kindergarten Through 3rd Grade* made the following five recommendations:

1. Teach students how to use reading comprehension strategies.
2. Teach students to identify and use the text's organizational structure to comprehend, learn, and remember context.
3. Guide students through a focused, high-quality discussion on the meaning of text.
4. Select texts purposefully to support comprehension development.
5. Establish an engaging and motivating context in which to teach reading comprehension.

(Shanahan et al., 2010)

Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade (2016) made the following four recommendations:

1. Teach students academic language skills, including the use of inferential and narrative language, and vocabulary knowledge.
2. Develop awareness of the segments of sounds in speech and how they link to letters.
3. Teach students to decode words, analyze word parts, and write and recognize words.
4. Ensure each student reads connected text every day to support reading accuracy, fluency, and comprehension.

(Foorman et al., 2016)

Structured Literacy

The recommendations found in the practice guides can be broken down further into specific skills to be taught. Moats (2019) recommended explicit, systematic instruction including phoneme awareness, phoneme-grapheme correspondences, orthography, morphology, syntax, and semantics. According to Moats, the most effective instruction is cumulative, hands-on, engaging, multimodal, diagnostic, and responsive. This approach is known as Structured Literacy (SL).

Are the Simple View of Reading and Structured Literacy Too Simple?

In 2009, the Reading for Understanding (RfU) initiative was established by the IES to examine the SVR model and determine its validity. The RfU determined the SVR model served a valid purpose as a broad conceptual model, but it should not be construed to advocate for an exclusive focus on word-reading instruction (Cervetti et al., 2020). Aouad & Savage (2009) pointed out children "differ concerning decoding and comprehension dimensions, thus requiring different teaching strategies and interventions to support their reading development" (p. 197). In other words, oral language has been found to be more complex than often portrayed, and children do not all possess the same degree of language comprehension. Cervetti et al. (2020) warned against the popular idea language comprehension develops naturally; there is a great deal of language comprehension that can and should be taught to students.

Researchers have also found there is a changing interplay between the two factors in the SVR's equation. For beginning readers, decoding skills are more influential on a child's reading comprehension. Over time, as a child becomes better at decoding and reading becomes automatic, language comprehension plays a larger role in reading comprehension (Aouad & Savage, 2009; Ouellette & Beers, 2010; Florit & Cain, 2011). Particularly in middle and high school students, background knowledge, vocabulary knowledge, word-reading skill, inference making, and reading strategies play a more important role in reading comprehension than decoding skills (Cervetti et al., 2020).

Although the Simple View of Reading is a valid and useful heuristic in explaining reading comprehension (Aouad & Savage, 2009; Florit & Cain, 2011), researchers have found there is a large amount of variance in reading comprehension is not explained by the two-factor equation of D x LC = RC. In some studies, an equally large proportion of reading comprehension variance was not explained by decoding and language comprehension as was (Georgiou et al., 2009). Ouellette and Beers (2010) called the SVR "misleading" insofar as it was interpreted to mean decoding stood apart from visual word recognition, vocabulary, and other important aspects of reading (p. 203). Thomas (2022) called SVR "an inadequate theory for classroom instruction," despite its continued popularity (p. 12). According to Burns (2023), the SVR seems to leave out other intervention targets such as fluency, and "representations of reading with greater specification may have better explanatory value in some cases" (p. 31).

Alternatives to SVR: Scarborough's Rope and the Active View of Reading

A model for reading which incorporates a greater number of factors in reading is Scarborough's Reading Rope (see Figure A3). In this model, language comprehension includes the strands of background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge. Word recognition consists of phonological awareness, alphabetic principles, and sight word recognition. These multi-stranded threads of language comprehension and word recognition are then woven together into skilled reading (Altun & Sarı, 2018).

Although Scarborough's Reading Rope fleshes out more individual components of language comprehension and word recognition, Clemens et al. (2023) have pointed out there is a "confluence of environmental risk factors related to family economic disadvantage in early childhood" predicts deficient self-regulation skills and leads to negative effects on academic achievement (p. 18). Duke and Cartwright (2021) have also advocated for a more complex view of reading and developed their own model called the Active View of Reading (AVR) (see Figure A4). Their proposed model includes self-regulation skills—motivation and engagement, executive function skills, and strategy use—as well as bridging processes that fall in the intersection of word recognition and language comprehension. These bridging processes are print concepts, reading fluency, vocabulary knowledge, morphological awareness, and graphophonological-semantic cognitive flexibility. Clemens et al. (2023) have stated their preference for the AVR model and its inclusion of self-regulation skills.

Structured Literacy

SL, as it has been interpreted, developed, and marketed by organizations, has also been criticized for being incomplete. Woods and Graham (2020) recommended exercising caution when adopting an SL program because these programs often do not "address all of the components of evidence-based reading identified by the National Reading Panel (2000)" (p. 6). They further stated although "groups supporting specified programs and methods for early reading instruction likely have pure intentions…recommendations from these interest groups should be considered *in tandem* with the original research on [scientific reading instruction]" (p. 8).

Despite being criticized for their simplicity, both the SVR and a structured literacy approach have continued to be upheld by researchers as valuable. According to Cervetti et al. (2020), Gough—one of the creators of the SVR—with Hoover and Peterson declared, "'only a fool would deny reading is complex. Reading clearly involves many subprocesses, and those subprocesses must be skillfully coordinated'" (p. S167-8). As more research on literacy is completed, it is likely a more comprehensive model will be shown as valid in explicating the process of learning to read.

Multi-tiered System of Supports

MTSS, sometimes referred to as a response to intervention (RTI), is the framework used to implement explicit, systematic SL instruction in a manner targets the various needs of all students in the classroom. The IES and WWC have published two practice guides to inform schools of how best to accomplish this mission. *Assisting Students Struggling with Reading: Response to Intervention and Multi-Tier Intervention in the Primary Grades* was published in 2008 and contained the following recommendations:

1. Screen all students for potential reading problems at the beginning of the year and again in the middle of the year.
2. Provide time for differentiated reading instruction for all students based on assessments of students' current reading levels.
3. Provide intensive, systematic instruction on up to three foundational reading skills in small groups to students who score below the benchmark score on universal screening.
4. Monitor the progress of tier 2 students at least once a month.
5. Provide intensive instruction daily promotes the development of the various components of reading proficiency to students who show minimal progress after reasonable time in tier 2 small group instruction (tier 3).

(Gersten et al., 2008)

In 2022, IES and WWC published *Providing Reading Interventions for Students in Grades 4-9.* This practice guide recommended older students whose reading scores are below the benchmark receive the following reading interventions in addition to core instruction:

1. Build students' decoding skills so they can read complex multisyllabic words.
2. Provide purposeful fluency-building activities to help students read effortlessly.
3. Routinely use a set of comprehension-building practices to help students make sense of the text.

4. Provide students with opportunities to practice making sense of stretch text (i.e., challenging text) will expose them to complex ideas and information.

(Vaughn et al., 2022)

These recommendations have been implemented in schools across the United States and other countries, and many studies have shown their effectiveness.

Studies on MTSS

Siegel (2020) described the study of a school district in Vancouver, Canada, in 1996 that switched from using a whole language approach to reading instruction to using SL coupled with RTI. These six principles were followed by the school in their implementation of RTI:

1. Intervention should begin as soon as the child is experiencing some difficulties.
2. Early screening is critical, and children should be screened for potential problems as soon as possible.
3. Good classroom instruction in reading is essential and should begin as early as possible.
4. Teachers need to be trained in developing phonological awareness and phonics skills in their students.
5. Monitoring progress is key to understanding student development and detecting the difficulties students may experience.
6. Emphasis should be on intervention, rather than labeling and classifying students.

(Siegel, 2020, p. 141)

All interventions were implemented in the general education classroom as supplemental reinforcement of the SL instruction being taught to all students. The district saw a decrease in the number of students considered at risk from 25% of students for whom English was their first language and 50% of English Language Learners (ELL's) in kindergarten to 1.5% of students in both groups in 7th grade. The SL program used by the district coupled with RTI ameliorated not only the achievement differences in

students from various language backgrounds but also the differences in students of disparate socioeconomic status.

Blachman et al. (2004) studied the progress of second- and third-grade students who were at risk for reading failure and who received eight months of intensive, systematic, and explicit SL interventions in addition to their core classroom instruction. The students who received this intensive instruction showed significantly greater gains in their reading skills than those of the control group who received the regular, remedial reading interventions provided by the school. One year later, many of the gains of the treatment group remained significant.

The researchers followed up with the original participants of the study a decade later to determine if the significant gains of the students who had received the intensive intervention had been sustained. This follow-up study found only moderate effect sizes between the treatment and control groups. The study acknowledged explicit instruction in comprehension and fluency were lacking, which might have accounted for the loss in rates of gain for the treatment students. The researchers also theorized the students who were further behind might not have received the intensity or the length of treatment necessary to achieve a level of self-teaching where words are committed to sight memory. The researchers concluded reading intervention was "more appropriately viewed as analogous to insulin therapy, rather than as an inoculation against further reading failure" (Blachman et al., 2014). In other words, for a student with a reading disability, interventions are likely to be ongoing rather than episodic.

Gersten et al. (2017) studied 20 SL reading interventions and found all but one had positive or potentially positive effects on reading outcomes for students in grades 1-3. Over half of the tested interventions were administered in one-to-one settings; the rest were administered in small-group settings. The effectiveness of one-to-one and small group settings for intervention for students with dyslexia was also noted by Peterson and Pennington (2012). According to Whitbread et al. (2021), SL instruction and interventions are also effective for teaching students with intellectual disabilities.

Universal Screening

Universal screening is the method used to identify students who need intervention within an MTSS framework. Compton et al. (2006) stated the success of the framework "hinges on the accurate determination of a risk pool of children to enter the Tier 2 intervention" in kindergarten and first grade to prevent the onset of significant reading problems (p. 395). Through a two-year longitudinal study of first graders, the researchers determined universal screening predicted the students who were at risk of reading disability with acceptable accuracy.

However, the researchers acknowledged there were problems related to false positives and false negatives. They found, while false negatives put students at risk of not learning to read proficiently, false positives were equally problematic, as they "undermine the preventive purpose of RTIs by increasing the number of children identified as at risk and thereby further stressing school resources to provide effective Tier 2 intervention to an inflated percentage of the population" (p. 395). Balu et al. (2015) identified another problem with overidentification. In a study of 146 schools, the researchers found students who were just below the cut point for needing interventions experienced a significant negative effect from being assigned to Tier 2. The researchers concluded, while interventions can be beneficial to students, the framework for the interventions should be well-designed and the interventions closely monitored to ensure students are making progress. Gersten et al. (2009) also recognized overidentification was a problem with universal screening, but stated: "Nonetheless, the extensive body of replicated correlational research supports our conclusion these are reasonable batteries of measures to use for early screening, particularly in grades 1 and 2" (p. 12).

Two-stage Gated Screening

Compton et al. (2010) recommended using a two-stage gated screening process for the identification of students in need of interventions. With this method, all children are administered a single, brief measure of decoding skills, and the children who score within the at-risk range are given additional tests to determine if they need interventions. The researchers found this approach to be effective at eliminating both false positives and false negatives. However, not all researchers have found

this to be an effective approach; some studies have shown administering multiple screeners to determine if a student should be moved to Tier 2 does not increase the accuracy of placement, and might even decrease the accuracy (Vanderheyden et al., 2018; Kent et al., 2019).

Curriculum-Based Measurement

Another way of addressing the problem of inaccurate identification of students for tier 2 interventions is the use of curriculum-based measurement of reading (CBM-R). The meta-analysis of Kilgus et al. (2014) revealed curriculum-based measurement of reading (CBM-R) was more accurate at detecting students at risk of failing to learn to read than other universal screeners. In their study of 287 first and second graders, January et al. (2016) also found CBM-R was a more accurate predictor of students in need of intervention than subskill mastery measures. Missall et al. (2019) found, while teachers were not as good as CBM-R at predicting nonproficiency in reading, they were more accurate than CBM-R at predicting proficiency in their students. This suggests the opinions of teachers should be considered when determining if students near the cut point should be included in Tier 2.

Teacher Education

The need for teacher training in reading instruction was identified by the NRP in its report. Martínez et al. (2022) found intensive professional development in evidence-based literacy instruction led to a significant decrease in the number of 5-year-old students who were at risk of reading failure. In a randomized field trial, Gersten et al. (2010) found teacher study groups led to teachers significantly altering their practices. The researchers also found there were significant gains in teacher knowledge about literacy, which resulted in a marginally significant impact on student outcomes.

Some researchers have found teachers' learning about reading instruction and dyslexia has occurred primarily through means other than formal undergraduate and graduate programs. Through interviews, Ohi (2007) found teachers identified three main influences on how they taught children to read:

1. Professional experience
2. Learning from other teachers

3. Networking with other professionals

Reid and Weiser (2009) noted a "disconnect between what teachers must know and what they are actually taught in their undergraduate and graduate preparation" as well as a "substantial gap between what licensure tests measure and the knowledge teachers must have to effectively teach reading (and math) concepts" (p. 478). This was echoed more recently by Gonzalez (2021), who found most teachers interviewed did not believe their undergraduate or graduate education prepared them for working with students with dyslexia. School district PD and outside training in multi-sensory approaches were the most frequently cited avenues teachers had found helpful in preparing them to work with students with reading disabilities. This is a significant finding for educating homeschool parents about SL because it indicates training resources are readily available outside the confines of universities.

Wright State University (WSU) has taken an innovative approach to educating their community about evidence-based reading instruction and dyslexia. WSU has begun offering a graduate certification program on dyslexia, PD for in-service training for schools, and a dyslexia center to educate students, parents, and local community residents on what dyslexia is and what comprises evidence-based reading instruction (Mills & Clarke, 2017).

Training in SL has been shown to have a positive impact on teachers' perceived self-efficacy; Bernadowski (2017) found training on evidence-based reading instruction significantly increased teachers' perceptions of their ability to teach students with reading disabilities. This is important because it has been shown an increase in a teacher's perceived self-efficacy can have a positive impact on the instruction and learning that happens in the classroom (Zee & Koomen, 2016). The implication for homeschooling parents is training in SL will increase their confidence as well as their ability to teach their children effectively.

Summary of Literature

The 2000 report of the NRP identified five key elements to evidence-based reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. In light of this report, the SVR and SL have been the object of much research and discussion. Although they have been criticized for their simplicity, research has upheld SVR and SL's validity and positive impact on student reading and comprehension. Under the guidance of the findings of the NRP and the IES and WWC practice guides, implementation of MTSS using evidence-based, SL instruction and universal screening has proven to be an effective method of teaching nearly all students to read. However, teachers must be trained in SL and MTSS for this approach to be effective. Teachers have identified training in multi-sensory approaches to reading instruction as the most effective in preparing them to work with students who struggle to learn to read.

Within the homeschool community, parents teach their children to read, often without any training on evidence-based reading instruction. Parents may be unsure of whether their children are making adequate progress or getting what they need educationally. It is important homeschool parents are given the opportunity to learn about SL instruction, granted access to universal screening, supported in developing educational plans for their children that will meet their needs, and provided progress monitoring so they know their children are on track to become proficient readers.

Site Profile

Community Characteristics

Knoxville is the county seat of Marion County in south central Iowa. According to the United States Census Bureau, on July 1, 2022, the population of Marion County was 33,642, and the population of Knoxville was 7,451. 19.9% of Knoxville residents were under 18 years old and 96% were white. The median household income for Knoxville residents was $52,125, which is below the median household income for Marion County at $66,822. Persons in poverty comprised 12% of the population of Knoxville as compared to 8.6% for all of Marion County (United States Census Bureau).

School District Characteristics

Knoxville Community School District (KCSD) serves approximately 1,600 students within four schools. According to the district's student management system, during the 2022-2023 school year West Elementary served 371 students in kindergarten through 2nd grades; Northstar Elementary served 345 students in 3rd through 5th grades; Knoxville Middle School served 369 students in 6th through 8th grades; and Knoxville High School served 500 students in 9th through 12th grades. In 2022, 89.5% of KCSD students were white, 14.4% had an individual education plan (IEP), and 39.5% qualified for free or reduced lunches (Iowa Department of Education).

Program Characteristics

KHSAP was started during the 2016-2017 school year by Superintendent Cassi Pearson. Since its inception, KHSAP has grown from serving 12 students to serving over 60 students in kindergarten through 12th grade. The distribution of students has tended to be higher in the upper levels, with kindergarten through 5th grade comprising anywhere from 23 to 46% of the students each year.

The mission of KHSAP is to support families as they make their homes the best places of learning they can be. Its vision is to cultivate a vibrant community of staff and homeschool families who learn from one another. KHSAP staff strive to constantly improve the services provided to families so families can always improve the education their children receive at home. KHSAP serves families by offering a lending library of curricula and homeschool materials, enrichment classes for students, field trips, open gym days, and other activities. Last year, KHSAP began offering classes for parents to help them learn about best educational practices and develop as parent-teachers.

KHSAP staff consists of two regular, part-time staff and several adjunct teachers as needed. The duties of the part-time staff are varied. These include but are not limited to meeting with families; teaching classes; organizing and maintaining the lending library; organizing activities, classes, and field trips; applying for grants and awards; communicating with families via monthly newsletters, emails, texts, and phone conversations; representing the program to the local school board; and communicating with

administrative staff. Professional Development for KHSAP staff consists of the online trainings required by the school district for all teachers, summer training for STEM scale-up awards, and weekly staff meetings to plan and discuss important items.

Parents are integral to and highly involved in KHSAP. At a minimum, KHSAP staff meet face-to-face with the parents in the program twice per quarter, although many parents are seen on a weekly basis or even multiple times per week. KHSAP staff works with parents in an advisory capacity as requested by the parents. Other than the required face-to-face visits and two other contacts per quarter, every service offered by KHSAP is optional. Many parents attend classes and workshops, field trips, and volunteer for various activities.

Income information is not collected from KHSAP families. However, most of the participating families are single-income households, so it can be assumed there is a fair number of families of low socioeconomic status. Most of the families in KHSAP put a high priority on traditional family values and religious instruction. During the 2022-2023 school year, 98.4% of the students in KHSAP were white, with 1.6% being of Asian descent.

Student Portfolio & Performance

In 2022, KCSD scored slightly below the state average on school achievement in English language arts and mathematics (ELA 48.55%; Math 48.45%). The percentage of students proficient in English language arts was 66.76% and the percentage proficient in mathematics was 62.21% (Iowa Department of Education).

KHSAP offered FastBridge universal screening for the first time during the 2021-2022 school year, and eight students participated. Of those eight students, 63% of their reading subtest scores were below the benchmark, with 28% being categorized as some risk and 35% being high risk (N=43). Seven KHSAP students participated in FastBridge testing during the 2022-2023 school year, four of whom had participated the previous year. 42% of the reading subtest scores were below benchmark, with 24% being categorized as some risk and 18% being high risk (N=38).

Curriculum, Instruction, & Assessment

Parents in KHSAP are free to choose the curricula they use to educate their children at home. KHSAP staff is available and willing to offer advice on curricula choices, but the final decision always rests with parents. KHSAP has a budget for purchasing new curricula and materials not currently in the library as requested by parents. Curricula and materials purchased for the library must be for an academic subject appropriate for public school use.

Enrichment classes offered by KHSAP are not meant to replace core instruction in academic subjects, as it is assumed parents will provide their children with instruction in reading, mathematics, language arts, science, and social studies. Classes offered by KHSAP are meant to be supplemental and/or cover elective subject areas. Curricula for these classes is not aligned to the common core; the curriculum and approach to use for any given class is generally at the teacher's discretion.

KHSAP classes allow staff to informally assess how students are progressing in their education. FastBridge testing is offered, and the interventions suggested by FastBridge are communicated to the parents of students who score below benchmark. However, no progress monitoring is currently being offered. Standardized tests such as Iowa Assessments have not been offered by KHSAP, although parents are made aware their students can take the Iowa Assessments through Heartland AEA in Johnston, Iowa.

Needs Assessment

Parents teaching their children at home often lack access to tools such as current research on which to base instructional decisions, universal screening, diagnostic tools, progress monitoring, and trained professionals with whom they can collaborate. They may not realize if their child is falling behind. Parents who are aware their child is behind may not know what specific skills to target for supplemental instruction or what tools to use to monitor whether their child is making progress. Homeschool families would benefit from a support system that provides these safeguards against failure.

KHSAP exists to support families who are educating their children at home. This support has consisted primarily of auxiliary and enrichment activities and providing families with curricula of their

choosing. KHSAP has done little in the way of offering guidance to families as to what are evidence-based instructional strategies and curricula or in providing targeted support for children who are at risk of falling behind grade level.

MTSS does not exist within the home school assistance program framework. Parents who are aware their child has fallen behind in school and/or suspect their child has a learning disability must do their own research to try to identify what the problem is or seek the advice of private professionals. This process is often overwhelming and cost prohibitive.

With the tools available through KCSD and Heartland AEA, KHSAP can alleviate some of the burdens on parents whose homeschooled children are falling behind and in need of more intensive support. KHSAP can educate parents about what current research says is necessary for effective instruction and optimal learning. By encouraging families to take advantage of FastBridge universal screening, KHSAP can help parents identify when their children have areas of weakness before the students fall far behind grade level. Staff can make recommendations and help parents develop intervention plans address a student's areas of weakness and can offer progress monitoring of students who are at risk of falling behind to assess whether the supplemental instruction is working. KHSAP staff can collaborate with the parents as well as KCSD and AEA staff to garner ideas and adjust a student's educational program. And finally, if a child continues to fail to make adequate progress despite targeted supplemental instruction, KHSAP staff will be able to recognize if he or she needs evaluation for special education through the public school and recommend this to the child's parents.

Data Analysis

Students who participate in FastBridge testing receive an assessed level in the reading of high risk, some risk, low risk, or college pathway. Students who receive an assessed level of low risk or college pathway are meeting the benchmark. Students who receive an assessed level of some risk or high risk are considered below benchmark and need better, evidence-based core instruction and/or supplemental instruction.

Of the eight KHSAP students who participated in FastBridge testing in 2021-2022, five (62.5%) received an assessed level of high risk in reading during the winter testing session (see Table 1). Of the remaining three students, two were assessed as low risk and one as college pathway in reading. The students who participated in testing ranged from kindergarten through sixth grade. There was a total of 22 kindergarten through 6th grade students enrolled in KHSAP in 2021-2022, which means at least 23% of kindergarten through 6th graders in KHSAP were at high risk of falling behind grade level if all the students who did not participate would have met benchmark. However, with only 36% of kindergarten through 6th graders participating in testing, it is safe to assume some of the students who did not test would have been below benchmark. Only three KHSAP students tested again in the spring of 2021-2022. Of those three, only Student 3 received an assessed level of high risk in the winter. Student 3's assessed level improved to some risk in the spring. Of the other two students who tested in the spring, Student 1 received an assessed level of low risk in the winter but decreased to some risk in the spring. Student 5 was assessed at college pathway in both the winter and the spring.

For the 2022-2023 school year, seven KHSAP students ranging from kindergarten through 3rd grade participated in FastBridge. This was 50% of the 14 kindergarten through 3rd grade students enrolled in KHSAP. In the fall, Student 2 received an assessed level of high risk in reading for the second year in a row. Student 3 again received an assessed level of some risk, as well as Student 10. Student 9 was assessed at low risk, and Students 5 and 11 were college pathway. Three of the seven students (43%) were below benchmark, meaning at least 21% of kindergarten through 3rd grade students enrolled in KHSAP were below benchmark. Only two students participated in FastBridge testing in the winter and spring. Student 9 remained at low risk in the winter but dipped to some risk in the spring. Student 11 was assessed at college pathway for all three testing windows.

Table 1

Knoxville Home School Assistance Program FastBridge Testing Results

	2021-2022	Fall												Winter												Spring											
Student	Grade	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL
1	K																SR	LR	LR				LR					LR				LR	LR			SR	SR					SR
2	1																	HR			HR	SR						HR													
3	2																						HR	HR	HR	HR	HR									SR	SR	SR	SR	SR
4	2																						HR	HR	HR	HR	HR													
5	2																						CP	CP	CP	CP	CP									CP	CP	CP	CP	CP
6	3																						CP	LR	LR	SR	LR													
7	4																						SR	HR	HR	SR	HR													
8	6																						HR				HR													
9	N/A																																							
10	N/A																																							
11	N/A																																							

	2022-2023	Fall												Winter												Spring											
Student	Grade	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL	CP	LN	LS	NW	OS	SR	SW	WS	aR	P1	P2	P3	AL
1	1				LR		LR	SR	LR					LR																									
2	2									HR	HR	HR	HR	HR																									
3	3									LR	SR	SR	SR	SR																									
4	3																																							
5	3									CP	CP	CP	CP	CP																									
6	4																																							
7	5																																							
8	7																																							
9	K	LR	LR	LR		LR								LR			LR	LR	SR			LR					LR			LR	SR			SR	LR					SR
10	K	LR	HR	SR		SR								SR																											
11	2									CP	CP	CP	CP	CP									CP	CP	CP	CP	CP											CP	CP	CP	CP	CP

CP - Concepts of Print
LN - Letter Names
LS - Letter Sounds
NW - Nonsense Words
OS - Onset Sounds
SR - Sentence Reading
SW - Sight Words
WS - Word Segmenting
aR - Auto Reading
P1 - CBMR Paragraph 1
P2 - CBMR Paragraph 2
P3 - CBMR Paragraph 3
AL - Assessed Level
CP - College Pathway
LR - Low Risk
SR - Some Risk
HR - High Risk

Offering FastBridge testing within KHSAP was a first step toward implementing MTSS within the program. However, it is apparent the number of students who participate in FastBridge testing needs to increase. It is difficult to identify which students need better, evidence-based core instruction and/or interventions if they do not participate in universal screening. It is also apparent those who do choose to participate need to do so on a regular basis. Only testing once per year does not give a full picture of a child's areas of weakness or whether the student is making progress or regressing.

Given the number of students who tested below benchmark in reading, it is apparent a plan must be implemented for educating parents about what solid, evidence-based reading instruction is. A plan for supplemental instruction and progress monitoring is also necessary to help parents determine what interventions, if any, are needed, and to help parents determine if their students are making adequate progress. For students who are below benchmark, further diagnostic assessments will be necessary to determine the appropriate interventions. For students for whom a learning disability is suspected, testing through the AEA will be necessary to determine if special education is an appropriate next step.

Action Plan

There are six action steps to implementation of MTSS in KHSAP. Table 2 provides the basic outline of these steps.

Table 2

Action Steps to Implementation of MTSS in KHSAP

Step	Purpose	Action	Special Considerations/ Emphases
#1 Parent Workshop	• To give a brief overview of evidence-based reading instruction • To educate parents about how MTSS can benefit their homeschools • To encourage parents to attend the literacy class for parents • To encourage parents to have their children participate in FastBridge testing	Hold a one-day workshop covering the following topics: • Evidence-based reading instruction: ◊ What is it? ◊ How can it benefit homeschool families? • FastBridge screening: ◊ How is it different from Iowa Assessments? ◊ How can it benefit homeschool families? • What happens if a student tests below benchmark on FastBridge? • Progress monitoring: ◊ What is it? ◊ How can it benefit homeschool families?	• This program is being offered as a service to assist parents in providing the best reading instruction to their children they can, not to evaluate their homeschools or them as parent-teachers. • MTSS and each of its constituent parts are optional, and families who choose to participate may decline further participation at any time. • For optimal learning to occur, all components of the plan should be implemented.
#2 Fall FastBridge Testing and Progress Monitoring for K-8th	• To establish a baseline for students • To identify students' potential areas	• Administer FastBridge testing in September • Compile and analyze results • Discuss with parents: ◊ Results of testing	• Testing is meant to help parents assess a student's strengths and weaknesses for the purpose of

grade students	of strengths and weaknesses • To identify students potentially in need of a change in core instruction or supplemental instruction	◊ Reading instruction being given at home ◊ Potential changes to reading instruction at home ◊ How to implement supplemental instructional plans suggested by FastBridge, if any • Develop a plan for progress monitoring, if needed	making evidence-based instructional decisions, not to evaluate their homeschools or them as parent-teachers. • Parents are free to choose the curricula and instructional approach used in their homeschools.
#3 Literacy Course for Parents	• To educate parents about evidence-based reading instruction • To help parents make evidence-based instructional decisions for their homeschools • To help parents evaluate reading curricula and instructional approaches being used in their homeschools	Hold a weekly class covering the following topics: • Five pillars of reading instruction based on the NRP 2000 Report (See Figure A1) • Models for teaching reading: ◊ Simple View of Reading (See Figure A2) ◊ Scarborough's Reading Rope (See Figure A3) ◊ Active View of Reading (See Figure A4) • Structured literacy: ◊ Systematic and cumulative ◊ Hands-on, engaging, and multimodal ◊ Diagnostic and responsive • Dyslexia – what it is and what it is not • Word recognition: ◊ Phonological awareness – syllables, phonemes, etc. ◊ Decoding – alphabetic principle, spelling-sound correspondences, phonics ◊ Orthography – patterns and conventions of the written word such as spelling	• Evaluation of curricula is a joint effort between parents and staff. • Parents are free to choose the curricula and instructional approach used in their homeschools.

		◊ Sight recognition of familiar words • Language comprehension: ◊ Background knowledge – facts, concepts, etc. ◊ Vocabulary – breadth, precision, links, morphology, roots, and affixes ◊ Language structures – syntax, semantics, grammar, etc. ◊ Verbal reasoning – inference, metaphor, etc. ◊ Literacy knowledge – print concepts, genres, etc. • Fluency skills • Reading comprehension skills • FastBridge screening and implementation of supplemental instruction • Evaluation of reading curricula	
#4 Winter FastBridge Testing and Progress Monitoring for K-8th grade students	• To track if students are progressing in their reading skills • To identify students' potential areas of strengths and weaknesses • To identify students potentially in need of a change in core instruction or supplemental instruction	• Administer FastBridge testing in January • Compile and analyze results • Discuss with parents: ◊ Results of testing ◊ Progress since fall testing ◊ Reading instruction being given at home ◊ Potential changes to reading instruction at home ◊ How to implement supplemental instructional plans suggested by FastBridge, if any • Develop a plan for progress monitoring, if needed	• Testing is meant to help parents assess a student's strengths and weaknesses for the purpose of making evidence-based instructional decisions, not to evaluate their homeschools or them as parent-teachers. • Parents are free to choose the curricula and instructional approach used in their homeschools.
#5	• To track if students are	• Administer FastBridge testing in May	• Testing is meant to help parents

Spring FastBridge Testing for K-8th grade students	progressing in their reading skills • To identify students' potential areas of strengths and weaknesses • To identify students potentially in need of a change in core instruction or supplemental instruction	• Compile and analyze results • Discuss with parents: ◊ Results of testing ◊ Progress over the school year ◊ Reading instruction being given at home ◊ Potential changes to reading instruction at home for next year	assess a student's strengths and weaknesses for the purpose of making evidence-based instructional decisions, not to evaluate their homeschools or them as parent-teachers. • Parents are free to choose the curricula and instructional approach used in their homeschools.
#6 Assessment of MTSS	• To determine overall success of MTSS • To determine strengths and weaknesses of MTSS • To plan for improvements for future years	• Survey parents to assess their perceptions of MTSS and improvements for future years • Meet with teachers to discuss their perceptions of MTSS and improvements for future years • Meet with Director of Teaching and Learning to discuss success of MTSS and improvements for future years	

Implementation of Program Improvement Plan

Implementation of MTSS in KHSAP will require considerable effort on the part of KHSAP staff to benefit program participants for the 2023-2024 school year. The success of this collaborative project will be dependent upon its participants' timely cooperation in fulfilling their roles. The KHSAP Coordinator must present the plan to the Director of Teaching and Learning, KHSAP teachers, and

parents in such a way as to garner significant enthusiasm and buy-in. Table 3 establishes a timeline and delineates the roles of staff for the implementation of the plan.

Table 3

Timeline and Staff Responsibilities for KHSAP Implementation of MTSS and RTI

Date	Who	Process
August 2023	Coordinator	• Present plan to Director of Teaching and Learning for approval • Meet with teachers to present plan, assign roles, communicate expectations • Participate in district PD for FastBridge • Plan and prepare for parent workshop • Advertise parent workshop
	Director of Teaching and Learning	• Make suggestions for plan implementation • Approve plan • Arrange for staff to have access to FastBridge • Arrange for staff to attend district PD for FastBridge
	Teachers	• Meet with Coordinator to learn about plan, discuss roles and expectations • Participate in district PD for FastBridge • Plan and prepare for parent workshop
September 2023	Coordinator	• Coordinate parent workshop • Present at parent workshop • Plan and prepare for literacy class for parents • Coordinate FastBridge testing • Administer FastBridge testing • Meet with teachers to discuss FastBridge results • Prepare FastBridge results and supplemental instruction plans for parents
	Teachers	• Present at parent workshop • Plan and prepare for literacy class for parents • Administer FastBridge testing • Meet with Coordinator to discuss FastBridge results
October 2023	Coordinator	• Meet with parents to discuss FastBridge results, supplemental instruction plans, and progress monitoring • Begin teaching literacy class for parents • Begin progress monitoring for students with supplemental instruction plans
	Teachers	• Begin teaching literacy class for parents

		• Begin progress monitoring for students with supplemental instruction plans
November December 2023	Coordinator	• Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
	Teachers	• Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
January 2024	Coordinator	• Coordinate FastBridge testing • Administer FastBridge testing • Meet with teachers to discuss FastBridge results • Prepare FastBridge results and supplemental instruction plans for parents • Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
	Teachers	• Administer FastBridge testing • Meet with Coordinator to discuss FastBridge results • Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
February - April 2024	Coordinator	• Meet with parents to discuss FastBridge results, supplemental instruction plans, and progress monitoring • Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
	Teachers	• Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans
May 2024	Coordinator	• Coordinate FastBridge testing • Administer FastBridge testing • Meet with teachers to discuss FastBridge results • Prepare FastBridge results for parents • Continue teaching literacy class for parents • Continue progress monitoring for students with supplemental instruction plans • Prepare survey for parents to assess success of the plan
	Teachers	• Administer FastBridge testing • Meet with Coordinator to discuss FastBridge results • Continue teaching literacy class for parents

		• Continue progress monitoring for students with supplemental instruction plans
June 2024	Coordinator	• Meet with parents to discuss FastBridge results and progress over the past school year • Send out survey to parents to assess success of the plan • Collect surveys and synthesize results • Meet with teachers to discuss strengths and weaknesses of the plan and improvements for future years • Meet with Director of Teaching and Learning to discuss strengths and weaknesses of the plan and improvements for future years
	Teachers	• Meet with Coordinator to discuss strengths and weaknesses of the plan and improvements for future years
	Director of Teaching and Learning	• Meet with Coordinator to discuss strengths and weaknesses of the plan and improvements for future years

Resources

Resources to implement the plan will come from KHSAP, KCSD, and Heartland AEA. KHSAP will provide the staff necessary to implement the plan as well as the funds to purchase curricula. KCSD will provide access to computers, FastBridge, district PD, and the expertise of the Director of Teaching and Learning. Heartland AEA will provide access to EBSCO and experts in the field of education.

Monitoring Success

Participation

The plan cannot benefit anyone who does not take advantage of it. Therefore, one measure of success will be the level of participation in the parent workshop, the literacy class, and FastBridge testing. The goal is to have half of the parents of students in K-8 attend the parent workshop, half of the parents of students in K-3 attend the literacy class, half of the students in grades K-3 participate in FastBridge testing, and at least five students in grades 4-8 participate in FastBridge testing.

Attrition

Research has shown the need for monitoring to happen more than one time per year to get a more complete picture of a student's progress and be able to identify when a student is falling behind sooner

rather than later. Therefore, a second measure of success will be the rate of attrition. The goal is to have 75% of the students whose parents attend the parent workshop and/or the literacy class participate in FastBridge testing, and to have 75% of the students who participate in FastBridge testing do so during all three testing windows.

Progress

The third measure of success will be the progress of students who participate in FastBridge testing. The goal is for 100% of students who test above benchmark to maintain or improve their scores, and for 100% of students who test below benchmark to improve their scores. If these things are not happening, a close examination needs to be made to determine why.

Potential Challenges

One potential challenge to successful implementation of this plan is the unwillingness of parents to participate in MTSS. Homeschool parents can be wary of public-school supervision, and if they perceive the purpose of the program is to assess their suitability for educating their children at home, their participation is unlikely. Therefore, it is important to communicate throughout the workshop and literacy course the purpose is to give them the tools to make the education they are giving their children at home the best it can be.

Another potential challenge is the failure of parents to follow through with using evidence-based instruction and/or the plans designed for supplemental instruction. While this is out of the control of KHSAP staff, it is within the control of the staff to be supportive of families while being realistic about what they can accomplish when developing supplemental instruction plans. It is also within the control of KHSAP staff to communicate the importance of follow-through for the sake of the children's education.

Conclusion

Studies have shown homeschooling can be an effective method of education (Ray, 2020). However, when a homeschooled student is struggling to learn to read, his or her parents often lack access to the resources to help them determine why the child is struggling and how they can help him or her

become a proficient reader. Access to training in SL as well as to an MTSS framework which includes universal screening and assistance in making evidence-based decisions for supplemental instruction would alleviate this problem and significantly increase the likelihood the student will become a proficient reader.

The MTSS framework has been used successfully in schools, and it is believed it can be used successfully in a home school assistance program. However, the success of any MTSS system is dependent upon the careful implementation of each of its multi-faceted components: evidence-based core instruction, universal screening, targeted interventions, progress monitoring, and evidence-based decision making for instructional changes. This program improvement plan lays out action steps and an implementation guide to provide the tools for parents to give their students the instruction they need to be successful at learning to read.

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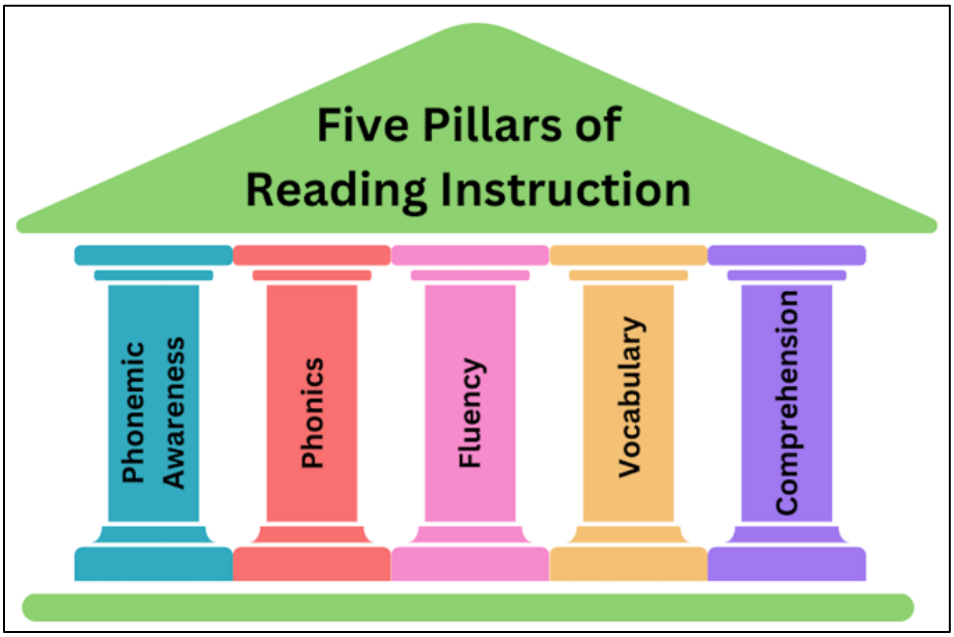
Appendix

Figure A1

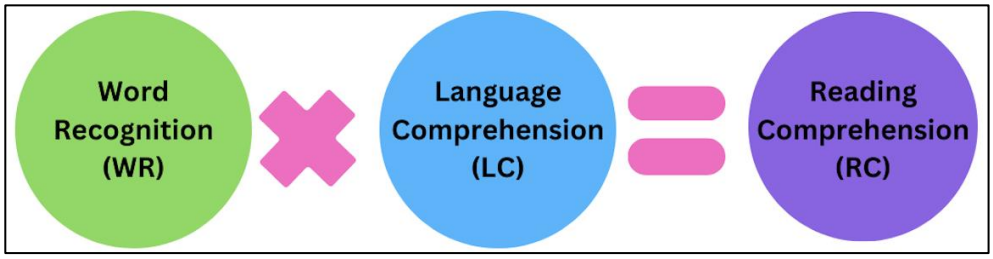
Five Pillars of Reading Instruction



Note. Adapted from "National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups" by Langenberg et al., 2000.

Figure A2

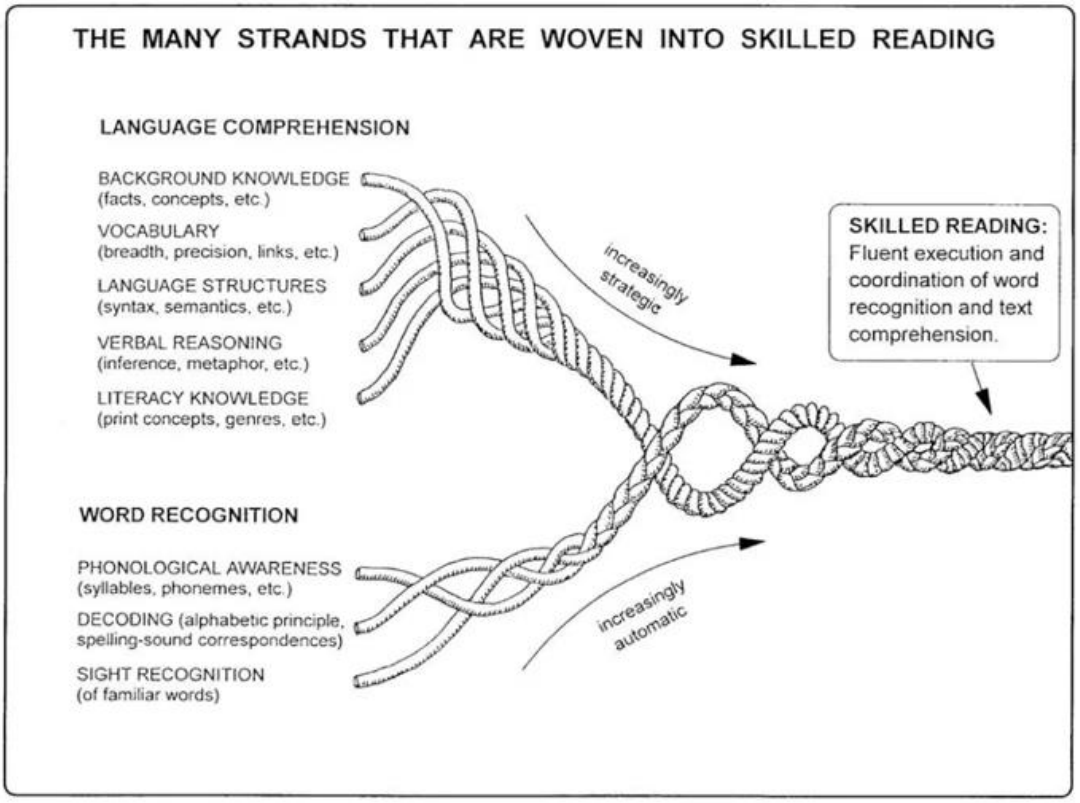
Simple View of Reading



Note. Adapted from "Decoding, Reading, and Reading Disability" by P. B. Gough and W. E. Tunmer, 1986, in *Remedial and special education*.

Figure A3

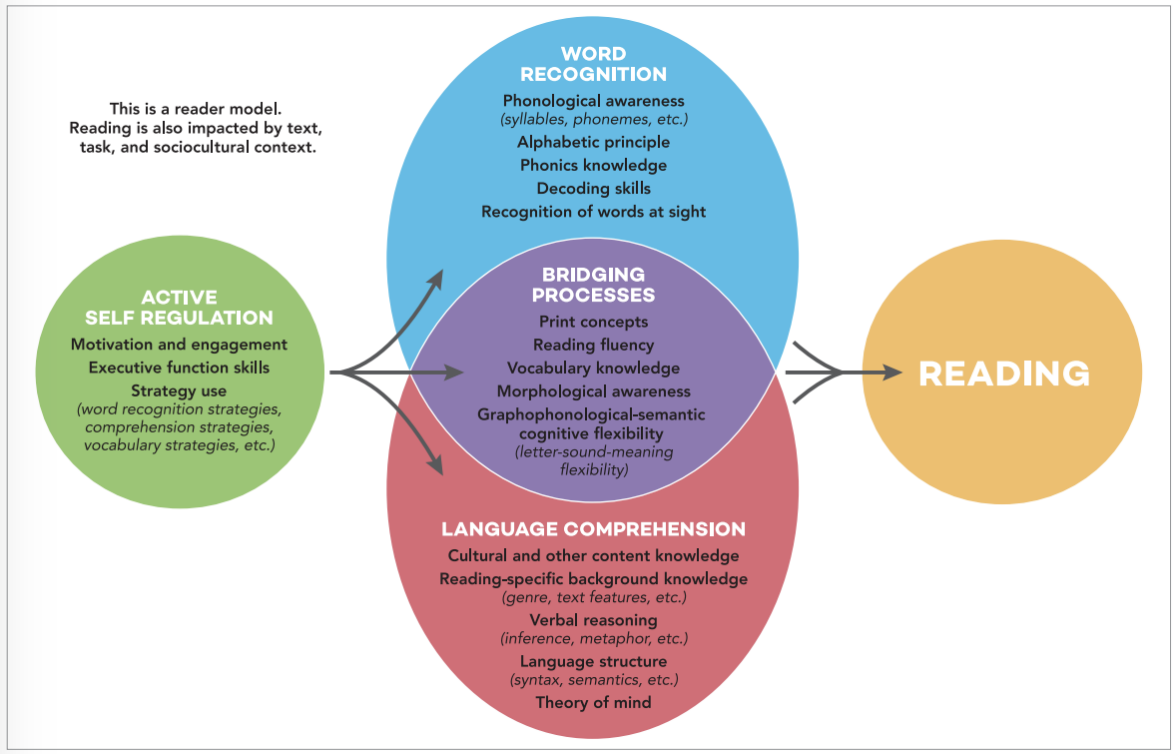
Scarborough's Reading Rope



Note. From "Connecting Early Language and Literacy to Later Reading (Dis)abilities: Evidence, Theory, and Practice," by H.S. Scarborough, 2001, in S.B. Neuman and D.K. Dickinson (Eds.), Handbook of Early Literacy Research (Vol. 1, p. 98), New York, NY: Guilford. Copyright 2001 by The Guilford Press.

Figure A4

Active View of Reading



Note. From "The Science of Reading Progresses: Communicating Advances Beyond the Simple View of Reading" by N. K. Duke and K. B. Cartwright, 2021, in *Reading Research Quarterly*. Licensed under Creative Commons Attribution-NonCommercial-NoDerivs License.