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The Effectiveness of Explicit Literacy Instruction on Kindergarten and First-Grade Student's Decoding Abilities

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The Effectiveness of Explicit Literacy Instruction
on Kindergarten and First-Grade Student's Decoding Abilities

A Quantitative Research Methods Proposal
A Project Presented to
The Graduate Faculty of Minnesota State University Moorhead

By
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Requirements for the Degree of
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Abstract

There is a growing concern among educators regarding how children best develop early literacy skills. Due to this educational concern, the purpose of this study was to investigate and build a better understanding of how explicit and systematic phonics, phonemic, and phonological awareness instruction impact kindergarten and first-grade student's ability to decode text. Participants of the study included students currently enrolled in the researcher's kindergarten and first-grade classrooms within two elementary schools consisting of 54 students. The researchers modeled and taught literacy skills and concepts on a daily basis with all students using explicit and systematic literacy instruction. The research design was a quantitative study using data collected through a FastBridge Nonsense Word Fluency screener (Illuminate Education Inc., 2023) on a biweekly basis analyzing a student's ability to decode. The study took place during the 2022-2023 academic school year. The results of the study indicate there is a significant correlation between explicit and systematic instruction of early literacy skills and a student's ability to decode.

Dedication

It is with tremendous gratification, we the researchers dedicate this action research project to our families who have inspired and supported us throughout the entirety of our academic journey. The researchers also wish to acknowledge their collaboration and support of each other throughout this undertaking. It is those around us who continue to give us strength and encourage us to meet our goals and ambitions in life.

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CHAPTER 1

Introduction

Recent discussion among educators and administrators within our school district, as well as across the state of Minnesota, has indicated there is a growing concern regarding how children best develop early literacy skills. Due to this educational concern, our focus as researchers within our kindergarten and first-grade classrooms, has turned to what we can do to best support our beginning readers so that they develop skills necessary to become independent readers. Cohen et al. (2016) stresses the significance and importance of reading when stating, “the ability to read well is key to success in school, and in life” (p. 654). When considering the implications of being an unsuccessful reader and the potential impacts that it may have on everyday life, this brings attention to the need for educators to modify their instructional practices to best support the development of literacy skills in early readers (Ehri & Flugman, 2017; Fountas & Pinnell, 2020; Hudson et al., 2021).

Previous research has revealed that in order to aid in the development of early reading skills teachers must provide lessons explicitly emphasizing phonics, phonemic, and phonological awareness (Castles et al., 2018; Ehri, 2022; Ryder et al., 2007; Semingson & Kerns, 2021). In order to effectively teach these skills, educators must receive adequate preparation and training for students to successfully acquire foundational reading abilities essential to become a confident and proficient reader (Flynn et al., 2021). If kindergarten and first-grade students fail to acquire the capabilities needed to be a competent reader they will “continue to fall further behind over time and their difficulties associated with reading persist through adulthood demonstrating that the consequences of untreated reading difficulties extend far beyond poor academic achievement” (Melesse & Enyew, 2020, p. 385). This propels us as educators to conduct our own

study documenting the effectiveness of teaching word decoding skills and the effect it has on producing adept readers.

Brief Literature Review

According to Ehri (2022), young learners acquiring beginning reading skills must have a firm understanding of letters, knowledge of decoding skills and the ability to apply word knowledge in context. Explicit and systematic phonics instruction promotes these introductory reading skills. In order to build a strong foundation in reading, students must start by focusing on and blending letter sounds found within consonant vowel consonant pattern words (Ehri, 2022). Focusing on letter sounds is a crucial component to develop an understanding of words, allowing students to acquire skills that are vital in the attainment of future independent literacy abilities (Castles et al., 2018).

Recently, there is a dominant trend indicating that teachers are ill equipped and underprepared to teach these reading skills due to wide variance in teacher education programs (Ehri & Flugman, 2017). This gap greatly impacts their student's abilities to gain the skills necessary to be an effective reader (Cohen et al., 2016). Ehri and Flugman (2017) share a concern that educators with more expertise of early reading skills, including teaching students how to decode unknown words, result in students making further growth in their reading achievement overtime as compared to educators with minimal expertise spending copious amounts of time teaching decoding skills. Providing students with the skills necessary to decode words gives them the opportunity to apply this knowledge to all words, both familiar and unfamiliar (Ehri, 2022; Mesmer & Kambach, 2022).

Statement of the Problem

In recent years, there has been a continued decline in elementary student's abilities to achieve grade level expectations in early reading skills. Due to this decline, more students are in need of early reading intervention as they have not retained or mastered the critical reading skills necessary to move forward on the path to becoming a successful independent reader. Cohen et al. (2016) maintains that students who struggle in the early years with reading typically don't become proficient readers. Findings such as this indicate the need for educators to examine their instructional practices to best support the students in their classroom. Students who lag in these early literacy concepts demonstrate the necessity for teachers to adjust their instructional practices to support their students to become skilled readers. This study examined the effect of explicit phonics, phonemic, and phonological awareness instruction on a student's ability to decode text.

Purpose of the Study

The goal of this study was to examine the effect on struggling readers when systematic phonics, phonemic, and phonological awareness instruction is explicitly used to teach beginning readers. The study focused on one kindergarten classroom and two first-grade classrooms placing an emphasis on the importance of teaching these crucial early literacy skills. The study examined the academic reading achievement in all three classrooms to determine if there was an association between explicit phonics, phonemic, and phonological awareness instruction on a student's ability to decode text. Aiken et al. (2021) proclaim that elementary educators are continually seeking ways to best support their student's reading achievement. Thus, there is a growing need for educators to reflect upon their current teaching strategies regarding phonics, phonemic, and phonological awareness as these skills segway to the development of a strong foundation in literacy competencies.

Research Question

What role does explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text?

Definition of Variables

Phonics (Independent Variable): Phonics is a type of instructional practice that educates early literacy learners the understanding of letter-sound association in a student's ability to read and write text (Ehri, 2020; Ehri, 2022).

Phonemic Awareness (Independent Variable): Ehri (2022) refers to phonemic awareness as “the ability to focus on, distinguish, separate, and manipulate phonemes within pronunciations of words” (p. 53). It also involves “the ability to segment spoken words (e.g., “dog”) into phonemes (e.g., /d/-/o/-/g/) to form whole words; adding, substituting, or deleting phonemes in spoken words (e.g., say “dog” without /d/)” (Ehri, 2022, p.53).

Phonological Awareness (Independent Variable): According to Bratsch-Hines et al. (2020) phonological awareness is the ability to recognize and maneuver parts of spoken “words, syllables, onsets, rimes, and phonemes” (p. 215).

Decoding (Dependent Variable): Decoding, according Ehri (2022) is defined as “transforming graphemes into phonemes and blending them to form a recognizable word” (p. 56).

Significance of the Study

This study allowed the researchers to obtain a more in depth understanding of how kindergarten and first-grade students gain and use early literacy skills to support further reading development. It highlighted the opportunity for teachers to engage in high quality teacher training, as well as professional learning communities, to obtain essential instructional skills to

help children become proficient readers. In addition, this study emphasized the critical need for teachers to acquire knowledge of explicit word decoding skills so they may effectively instruct students in how to use these skills as early readers.

Research Ethics

Permission and IRB Approval

In order to conduct this study, the researcher sought approval from MSUM's Institutional Review Board (IRB) (See Appendix A) to ensure the ethical conduct of research involving human subjects (Mills, 2018). Likewise, authorization to conduct this study was sought from the school district administrative team and parents/guardians of the participants where the research project took place (See Appendix B; Appendix C).

Informed Consent

Protection of human subjects participating in research was assured. Participant minors were informed of the purpose of the study via the Method of Assent (See Appendix D) that the researcher read to participants before beginning the study. Participants were made aware that this study was conducted as part of the researcher's Master Degree Program and that it would benefit their teaching practice. Informed consent means that the parents of participants have been fully informed of the purpose and procedures of the study for which consent is sought and that parents understand and agree, in writing, to their child participating in the study (Rothstein & Johnson, 2021). Confidentiality was protected through the use of pseudonyms (e.g., Student 1, participants) without the utilization of any identifying information. The choice to participate or withdraw at any time was outlined both verbally and in writing to the participants and their families.

Limitations

While several factors may influence a student's reading abilities, this study specifically examined the effects of phonics, phonemic, and phonological awareness instruction on a student's ability to decode. This study has been conducted within one kindergarten and two first-grade classrooms among two rural Minnesota elementary schools. The instruction delivered in each classroom was provided by the individual classroom teacher, for a total of three educators providing the instruction within their own classroom through the eight-week of the study. In addition to this limitation, researchers were also limited in the amount of time allowed for the study within classroom reading blocks as this may vary from classroom to classroom. Another limitation the researchers encountered was the setting in which the assessment took place. Given that the assessment and FastBridge Nonsense Word fluency was given in the general education classroom during the school day, the researcher or participant may have been interrupted by other students or staff members during the assessment, potentially impacting the results of the participant's assessment. There was also one participant who was unable to complete the entire duration of the study as the participant had moved out of the district midway through the study. Therefore, this participant did not complete the final progress monitoring assessment for the study.

Conclusions

The recent increase in struggling reader's inability to apply word decoding skills drives educators to seek out research based reading practices to best support the learners in their classrooms. This study brought awareness regarding the importance of explicit and systematic literacy instruction on a student's ability to decode words. Researchers emphasize the urgency in educators being able to provide explicit and systematic phonics, phonemic, and phonological awareness instruction for students as they learn the beginning principles of reading. The next

chapter explores current research supporting the importance of educators utilizing this approach for literacy instruction in early elementary classrooms.

CHAPTER 2

Literature Review

Introduction

Explicit instruction in phonics, phonemic and phonological awareness has been proven to lead students to positive outcomes with regard to reading achievement. Research in the area of reading interventions has identified the most effective approaches for building a foundation to becoming a skilled reader includes explicit instruction in phonics as well as alphabetic knowledge (Castles et al., 2018). Teachers of reading should ensure students are provided opportunities to receive explicit and systematic instruction allowing the learner to work with both the letters and sounds so they can accurately develop a connection demonstrating the letter-sound relationship (Mesmer & Kambach, 2022, as cited in Lonigan & Shanahan, 2010). Mesmer and Kambach (2022), insist that not enough emphasis is placed upon teaching students how to decode multisyllabic, multimorphemic words within the elementary classroom. Such an argument demonstrates the necessity for teachers to engage in professional development in the area of phonemic and phonological awareness to strengthen their instructional methods to meet the needs of the beginning readers in their learning environments.

The articles used in this research detail the importance of explicit and systematic phonics, phonemic and phonological awareness instruction as well as the importance of teacher knowledge and preparation to enhance student abilities to decode text.

Explicit Instruction in Phonics.

According to Castles et al. (2018), there is powerful correlation regarding the use of explicit phonics instruction for early readers. Research strongly advocates that when teachers provide early readers with systematic and explicit instruction in phonics, they learn decoding and spelling skills that are invaluable (Foorman et al., 1998). Utilizing systematic and explicit

phonics instruction necessitates and works best when teachers utilize a scope and sequence for learning phonics skills. It is necessary for the scope and sequence to be consistent among teachers as phonics instruction becomes unified when there is a shared vocabulary which makes phonics instruction more productive for students (Castles et al., 2018; Mesmer & Kambach, 2022). When teachers instruct students utilizing a systematic approach to phonics while teaching letter-sound correspondences, student reading abilities are enhanced (Schaars et al., 2017; Vazeux et al., 2020).

Vadsay and Sanders (2020) argue that learning to read and acquiring beginning reading skills in English orthography is one of the most challenging compared to other standard orthographies. Therefore, “teaching phonics is crucial because it gives children the skills to translate orthography into phonology” (Castles et al., 2018, p. 15). Students who demonstrate a greater depth of orthographic knowledge skills tend to achieve better outcomes in reading with regard to reading irregular words efficiently (Collins, 2016). Fuchs et al. (2001) claim that students need to apply word recognition skills effectively to read text aloud. Ehri (2020), makes a case in which she proclaims that educating young readers to use decoding strategies as well as the spelling of known words is at the core of beginning reading instruction when presented with an unacquainted word.

One of the most crucial strategies taught during explicit phonics instruction is word decoding which involves altering letters into sounds and blending the sounds to read a given word (Ehri, 2022; Parker et al. 2020). Ryder et al. (2007) recommends that the use of systematic phonics instruction is extremely beneficial in instructing beginning readers to decode words. When teachers begin to coach students on word decoding during the initial stages of phonics instruction students learn to apply these alphabetic principles to all unfamiliar words (Mesmer &

Kambach 2022; Schaars et al., 2017). Research supports that all readers, not just beginning readers, benefit from systematic teaching practices on decoding (Ehri, 2020). Castles et al. (2018) and Parker et. al, (2020) support the idea of using decodable books, texts and passages with children in the early grades as it gives them adequate time to acquire and apply decoding skills, thus allocating opportunities for more progress in reading achievement in the early stages of learning to read independently. Current examinations of reading imply that word level decoding helps readers become successful even when they are unable to comprehend the text (Michaud et al., 2017). Consequently, even though comprehension may be limited, instruction in phonics skills enables students to become more competent readers (Schaars et al., 2017).

Explicit Instruction in Phonemic and Phonological Awareness.

The development of phonemic awareness skills in young children is crucial in the facilitation of better reading performance (Melesse & Enyew, 2020). Aiken et al. (2021) argues when teachers place an emphasis on learning sounds at the beginning of the school year, this will help boost and improve students reading and writing skills, thus opening the door for students to achieve better growth in the area of reading. Melesse and Enyew (2020) also declare that to assist young readers in developing knowledge of letters and sounds, teachers need to focus on explicitly teaching phonemic awareness, which results in the student's ability to decode sounds in words. According to Vazeux et al. (2020) the ability of a student to attain and use phonemic awareness skills is a very good indicator of a child's future reading and spelling performance. When teachers fail to instruct students to accurately utilize phonemic awareness skills through the use of the alphabetic principle students will continue to struggle with reading skills (Melesse & Enyew, 2020).

Children's understanding of phonemes and graphemes within the alphabetic phase does not come instinctively or without challenges for young readers. The acquisition of phonemes and graphemes needs to be explicitly taught during classroom reading instruction in order for students to continue to make gains in their reading abilities (Castles et al., 2018). According to Ehri (2022), when teachers focus on teaching phonemic awareness and decoding skills using a systematic approach, students are able to move through the partial alphabetic phase in a quicker fashion. Vazeux et al. (2020) supports the argument that when early readers have knowledge of and apply the alphabetic code in their reading and spelling they make larger gains in phonemic awareness abilities as a result of the training in phonological awareness prior to learning to read. Additionally, Ehri (2022), reports teachers find it to be beneficial when students work with and manipulate the phonemes in spoken words before they work with the spellings of words. This finding is also supported by Holopainen et al. (2020) who states that "first grade reading skills were best practiced by letter sound connection and phoneme blending tasks" (p. 480).

When teachers utilize phonemic awareness interventions and strategies in their classrooms it has been widely researched and reported that students will have greater success in learning to decode (Melesse & Enyew, 2020). When struggling readers are in need of intervention and receive targeted reading support they demonstrate better abilities in regard to decoding and over time are at a decreased risk for reading difficulties later in school (Bratsch-Hines et al., 2020; Melesse & Enyew, 2020).

Teacher Knowledge, Preparation, and Training.

"The effectiveness of literacy education within the classroom is dependent on the expertise of the teacher" (Fountas & Pinnell, 2020, p. 223). Cohen et al. (2016) suggests that effective phonics instruction requires educators to be "highly trained" (p. 679). Preceding

investigations have determined that in order for a teacher to adequately support beginning readers, they must exhibit background knowledge in introductory literacy skills and use that knowledge to drive their reading instruction (Ehri & Flugman, 2017; Hudson et al., 2021). When educators “do not possess extensive knowledge of language structure and code-based concepts, as well as the ability to apply that knowledge in practice, their struggling readers are less likely to develop critical reading skills” (Cohen et al., 2016, p. 655). Therefore, it is extremely important and necessary for both teacher education students and professional teachers to take part in professional development opportunities in the field of literacy education to learn ways to incorporate reading skills in a cohesive way (Bratsch-Hines et al., 2020).

One of the bigger issues related to teacher preparation includes the fact that many individuals involved in making decisions about literacy education in the elementary classroom have never worked in a classroom or visited with teachers about literacy instruction, as well as the fact that inferences about literacy tend to be contrived by confined proof (Tesar, 2019). Across the United States explicit phonics instruction has been incorporated through the Common Core Standards, however not every state has implemented the Common Core Standards, highlighting a lack of consistency in how beginning readers are being instructed across the country (Castles et al., 2018). Ehri and Flugman (2017) discuss how educators are given a set of objectives for literacy instruction, however they are not adequately prepared to guide students to meet these Common Core State Standards. Results have shown when educators are adequately trained in early reading skills they become more capable in regard to instruction and supporting early readers to achieve better academic success with their own early literacy skills (Ehri & Flugman, 2017; Hudson et al., 2021). “Teachers’ subject knowledge for teaching phonics is

crucial; teachers are sometimes unaware of what they do and do not know” (Flynn et al., 2021, p. 305).

Teacher education programs must deliver specific training and opportunities for pre-service teachers to demonstrate the skills they have obtained in their coursework (Cohen et al., 2016; Ehri & Flugman, 2017). It is widely known that in order for teachers to become masters in the art of teaching reading, findings indicate that teacher preparation programs must ensure they are providing high-quality experiences in regard to early literacy training to initiate efficiency and superior outcomes for beginning teachers (Ehri & Flugman, 2017). Melesse and Enyew (2020) claim that educators experience better success with beginning reader’s skills when they are provided with professional development on how to utilize reading strategies within text at various levels. When the classroom teacher’s focus is placed upon understanding the strengths and areas for improvement of their students, the outcome results in sound literacy decisions (Fountas & Pinnell, 2020).

A highly effective method which has led to improved results in success in strengthening literacy instructional practices is to offer educators literacy coaches who mentor and recommend areas for improvement in how to best meet the literacy needs of their students (Ehri & Flugman, 2017; Ehri 2020). In addition, educators who have been involved in ongoing professional development in developing their skills and background knowledge through the use of expert guidance have seen benefits from this type of focused training (Hudson et al., 2021). Cohen et al. (2016) advocates the importance of providing ongoing professional development training to all educators, emphasizing the need for those who teach struggling readers.

Theoretical Framework

As discussed previously phonics, phonemic awareness, and teacher training all play a vital role in a student's ability to decode text. Decoding, according Ehri (2022) is defined as “transforming graphemes into phonemes and blending them to form a recognizable word” (p. 56). Whereas “graphemes are one or more letters that symbolize single phonemes” and “phonemes are the smallest units of pronunciations of words” (Ehri, 2022, p. 53). This study aimed to identify the effects of teaching students using explicit phonics, phonemic and phonological awareness instruction and the impact it plays on a student's ability to decode text.

The approach the researchers used has roots in cognitive constructivism which aims to scaffold student learning by facilitating student instruction in key concepts to assist students in learning. By using the key ideas of the constructivist theory, the researchers were able to support struggling readers in learning essential early literacy skills. Students were able to demonstrate the ability to tap into their prior knowledge and build upon their existing schema through the use of explicit and systematic instruction in phonics, phonemic and phonological awareness.

Research Question

What role does explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text?

Conclusions

Throughout this chapter, the researchers presented evidence urging the importance for beginning readers to acquire and learn phonemic, phonological awareness and phonics skills through explicit instruction from qualified instructional leaders. “We have discussed how the process of alphabetic decoding is essential for learning to read” (Castles et al., 2018, p. 16). Developing the skills necessary to decode words is essential for beginning readers to experience success with early literacy skills and to become a well rounded reader. This knowledge of

decoding and developing beginning reader skills gradually develops over a period of time and is critical for students to become successful readers (Castles et al., 2018). This study aims to determine the effects of educators using explicit instruction in these skills on a student's ability to decode text. In the next chapter the researchers discuss the methodology for how the study was conducted.

CHAPTER 3

Methods

Introduction

This study examined the importance of explicit phonics, phonemic and phonological awareness instruction in one kindergarten and two first-grade classrooms. Melesse and Enyew (2020) stress that when young learners begin instruction in reading, it is critical for them to gain an understanding of literacy and the process of reading. Kindergarten and first-grade teachers must prioritize reading instruction that facilitates early readers to develop fluency skills through the use of targeted phonics instruction (Semingson & Kerns, 2021). When students are not explicitly taught word decoding as well as essential systematic phonics skills while learning to read, this can greatly hinder a student's reading performance (Foorman et al., 1998). When contemplating the consequences of an ineffective reading knowledge base, there are potential detrimental impacts for the individual (Melesse & Enyew, 2020). This study sought to understand the impact that explicit phonics, phonemic and phonological awareness instruction may have on a student's ability to decode text. The findings have the capacity to influence an educator's instructional practices in early literacy in hopes of increasing the probability of producing proficient readers.

Research Question

What role does explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text?

Research Design

This study was quantitative in nature using numerical data from FastBridge Nonsense Word fluency screeners and progress monitoring probes in one kindergarten and two first-grade classrooms. This screener encompasses data which is part of the FastBridge Early Reading

Assessments, which are used for literacy assessments with the researcher's school district for kindergarten and first-grade students. Researchers examined the impact of the independent variables (i.e., phonics, phonemic and phonological awareness skills) on a dependent variable (i.e. decoding). Researchers selected the quasi-experimental research design as students are assigned to classrooms by administration prior to the beginning of the school year.

Setting

This study took place in two rural Minnesota elementary schools within the same public school district. The town in which the public school district is located consists of approximately 7,300 people and is known for its agricultural contributions to the area. The school district is composed of multiple schools with approximately 1,150 total students enrolled. Race/Ethnicities of the school district are as follows: American Indian or Alaskan Native (7.9%), Asian (0.9%), Black or African American (1.7%), Hispanic or Latino (23.9%), Native Hawaiian or Pacific Islander (0.1%), and White (61.1%). Within this district, 4% of the student body report being homeless, 50% of students enrolled receive free and reduced breakfast/lunch and 23% of the student body receive special education services. Parental involvement varies throughout the school district.

Participants

The study consisted of 54 participants ranging in age from five to seven enrolled in kindergarten or first-grade. Of the 54 participants, 29 were female and 25 were male. The participant's race/ethnicities are as follows: American Indian or Alaskan Native (7.4%), Asian (7.4%), Black or African American (11.1%), Hispanic or Latino (18.5%), and White (55.5%). Amongst the 54 students included in the study thirteen students (24%) were on an Individualized

Education Plan and one student was on a 504 plan. Within the three participating classrooms, about 67% of the students receive free or reduced lunch.

Sampling

The study consisted of a purposive sample of 54 kindergarten and/or first-grade students as they were students enrolled within the researcher's classrooms.

Instrumentation

The instrument used for data collection during the study was already familiar to both the researchers and participants as it was an assessment adopted by the local school district provided by FastBridge Learning. The nonsense word fluency data collection tool and screener (see Appendix E) is one component of the earlyReading English literacy proficiency composite assessments provided by FastBridge Learning. The subtest is a one-minute timed literacy test administered by the individual classroom teacher which directly assesses a student's ability to decode and read nonsense words using their knowledge of alphabetic principles and phonics skills. The nonsense words composed in the assessment are made up consonant-vowel-consonant pattern words that are not real words, but can be decoded by using known letter sound knowledge. The classroom teacher placed the nonsense word fluency practice page in front of the participant and explained that they are going to have the participant read some nonsense words on the following page. The classroom teacher then modeled one example of reading a nonsense word and then the participant practiced one nonsense word before the classroom teacher displayed the nonsense word fluency progress monitoring probe in front of the participant. The classroom teacher stated, "try to say each word as a whole word but if you can't say it as a whole word then try to sound out the letters to read the word." Once the directions had been given to the participant, the classroom teacher set the timer for one-minute and started the

timer only when the participant began the assessment. No help or advice was given to the participant during the assessment.

The assessment tool may be used as both a screener and used to progress monitor a student's decoding abilities. Scoring of the nonsense word fluency assessment may be interpreted in two ways; the student may correctly identify each individual sound or they may read the nonsense word in its entirety. For the purpose of this research, participants were expected to correctly decode and blend the sounds for the entire nonsense word as recommended by FastBridge. According to Illuminate Education Inc. (2023) the FastBridge nonsense word assessment is valid and reliable as it provides an opportunity for students to demonstrate decoding skills on words that are not within their vocabulary allowing for an accurate depiction of the student's true decoding skills.

Data Collection

Nonsense word fluency data was initially collected in December as part of the participant's early literacy profile to determine the student's baseline literacy and decoding scores. The nonsense word fluency assessment was administered by the classroom teachers to the kindergarten and first-grade participants on a biweekly basis at the beginning of the study to determine the effect of explicit and systematic phonics, phonemic and phonological awareness instruction on a student's ability to decode text. Each participant was assessed individually through a one-minute timed test. During the assessment participants were not provided with instruction or coaching of any kind. Scoring was completed by the classroom teacher and submitted online through the password protected FastBridge Learning website. During the assessment the teacher marked incorrect responses made by the participant electronically on the participant's recording sheet within the FastBridge progress monitoring recording system.

Reading the word incorrectly was marked as an error, as the study reviewed a participant's ability to correctly decode words using phonics skills. Any incorrect responses marked by the classroom teacher were not seen by the participant, as the incorrect response was only recorded on the classroom teacher's computer. Once one-minute had passed, the classroom teacher marked the last attempted word and told the participant, "Good job, thanks for doing your best work.". After the participant's score had been recorded, the classroom teacher called the next participant to complete the assessment.

Data Analysis

Upon collection of the participant's nonsense word fluency data, the classroom teachers recorded the scores for each participant within a Google sheets document with pseudonyms to protect the identity of each participant. Once the eight-week study was completed and all the data for each participant was recorded, the researchers used an extension add-on within Google sheets called XLMiner Analysis ToolPak to derive statistical representations, including tables and charts, of the data from the purposive sample group. A mean or average score was derived for the baseline data retrieved in December prior to the beginning of the study as well as for each biweekly assessment. The researchers analyzed this data in order to demonstrate how the participant's scores were related to the effectiveness of explicit and systematic phonics, phonemic, and phonological awareness instruction on a student's ability to decode text.

Research Question and System Alignment

Table 3.1 provides a description of the alignment between the study Research Question and the methods used in this study to ensure that all variables of the study have been accounted for adequately.

Table 3.1*Research Question Alignment*

| Research Question | Variables | Design | Instrument | Validity & Reliability | Technique (e.g., interview) | Source |
|---|---|---|---|---|--|---|
| What role does explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text? | DV: Decoding IV: Phonics IV: Phonemic Awareness IV: Phonological Awareness | The design of this study is Quasi-Experimental. | FastBridge Nonsense Word fluency assessment | The nonsense word fluency assessment developed by FastBridge Learning was utilized by trained classroom teachers. All scores have been norm referenced by FastBridge Learning for each grade level. | FastBridge Learning Nonsense Word fluency assessment | Kindergarten and First-grade Students Sample size: 54 students |

Note. Within the variables of the table, one dependent variable (DV) is recognized and three independent variables (IV) are identified.

Procedures

The study took place over an eight-week period during the regular school day during the 2022-2023 academic school year. The kindergarten and first-grade classroom teachers used a literacy curriculum developed by Benchmark Education Company. Phonics Word Study Workshop was the curriculum adopted by the school district to explicitly and systematically

teach phonics skills to students in a whole group setting for approximately 20-minutes in the morning each school day that the students were present. Teachers modeled early literacy skills within the mini lessons using sound boxes, Heidi songs, picture word cards, sound spelling cards, decodable phonics books, magnet letters, whiteboards, and dry erase markers. Once the skills were modeled, the students were then gradually released into guided practice during the whole group lesson. After guided practice, students were encouraged to use newly acquired literacy skills during independent practice. Every two-weeks the participants were assessed individually by the classroom teacher using the FastBridge Nonsense Word fluency progress monitoring probes to measure progress on word decoding skills.

Ethical Considerations

To protect the rights and wellbeing of the participants, the researchers obtained informed consent from the parents as the kindergarten and first-grade students are minors and not legally able to provide consent independently (See Appendix C). The participant's identities were protected and have remained anonymous throughout the course of the study. The researchers have reassured parents that the FastBridge Nonsense Word fluency assessment tool is a part of the literacy assessments that all students who attend these rural elementary schools already complete. Guardians were also made aware of the potential educational benefits to their child's learning and that this study posed no harm to the participants. Consent to complete the study was also obtained by the local school district's administrative team (See Appendix B).

Conclusions

This chapter addressed critical components of the study in regard to how data was collected, analyzed, and the procedures that were followed by the researchers during the course of the study. The researchers also discussed the setting, participants, and ethical considerations

that were followed throughout the study. In the next chapter the researchers discuss the overall results which includes an analysis and detailed interpretation of the findings from the study as well as their implications to professional practice for early literacy educators.

CHAPTER 4

Results

Introduction

The intention of this study was for the researchers to examine and acquire a well rounded understanding of how explicit and systematic phonics, phonemic, and phonological awareness instruction impact kindergarten and first-grade student's ability to decode text. As research has suggested, it is imperative that early learners who demonstrate difficulties in reading need a robust foundation in word decoding abilities (Parker et al., 2020). As early elementary teachers, the researchers strived to create meaningful and structured learning opportunities for their students based upon proven research that has demonstrated positive growth in literacy skills. Over the last decade, the researchers noticed a trend that indicated a decline in their student's decoding abilities. This alarming shift drove the researchers to study how they may become more effective as early literacy educators in order to build a foundation for students to become successful independent readers. The ultimate goal of the study was for the researchers to identify the correlation between how their explicit and systematic phonics, phonemic, and phonological awareness instruction supported students in transferring these skills to independently decode words.

Throughout the course of the eight-week study, the participants in the researcher's kindergarten and first-grade classrooms were explicitly and systematically taught phonics, phonemic, and phonological awareness with fidelity for approximately 20-minutes of whole group instruction daily. Students involved in the study were given the opportunity to practice these early literacy skills through whole group mini lessons, guided practice, as well as independent practice in their classrooms. The researchers aim was to determine if their

instruction was effective for students to develop competency in their abilities to decode words accurately.

Data Collection

Whole group mini lessons were utilized by the classroom teachers for instructional purposes throughout the study. These mini lessons consisted of the researcher modeling literacy skills, guided practice, and independent application of skills. Within their kindergarten and first-grade classrooms, each researcher engaged the participants throughout the whole group lesson by using a variety of hands-on and motivating approaches to learning including sound boxes, Heidi songs, picture word cards, sound spelling cards, decodable phonics books, magnet letters, whiteboards, and dry erase markers. The use of these materials allowed the researcher to model and involve participants in a plethora of literacy skills needed for word decoding.

In order to collect data from the participants in regard to their word decoding abilities, the researchers utilized baseline nonsense word fluency data that had originally been collected in December 2022. The nonsense word fluency assessment was chosen by the researchers as student's are able to demonstrate true decoding abilities since the words are unfamiliar which leads to an accurate depiction of their abilities (Illuminate Education Inc., 2023). The researchers utilized FastBridge Learning Nonsense Word fluency progress monitoring probes (See Appendix F; Appendix G; Appendix H; Appendix I) from Illuminate Education to assess and determine the effect of explicit and systematic phonics, phonemic, and phonological awareness instruction on the participant's decoding progress throughout the course of the study. The participants were assessed individually by the classroom teacher for one-minute on a biweekly basis using the progress monitoring probe during the school day. The results were recorded within the FastBridge Learning platform.

Results

Research Question: What role does explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text?

Individual FastBridge Learning Nonsense Word fluency progress monitoring probes (Illuminate Education Inc., 2023) were used to assess and track growth for the participants of the study throughout the eight-week duration of the study in the kindergarten and two first-grade classrooms. Upon completion of the eight-week study, 47 of the 54 (87%) participants enrolled in the study demonstrated growth in word decoding when compared to their original baseline score. The results shown in Table 4.1 are a statistical representation of the participant's nonsense word fluency scores throughout the duration of the study.

Table 4.1

Statistical Representation of Nonsense Word Fluency Scores

| | | Week 2 | Week 4 | Week 6 | Week 8 |
|--------|----------|----------|----------|----------|----------|
| | Baseline | NWF PM 1 | NWF PM 2 | NWF PM 3 | NWF PM 4 |
| Mean | 13.31 | 15.14 | 16.60 | 18.85 | 21.03 |
| Median | 11 | 12 | 14 | 16 | 17 |
| SD | 12.68 | 13.10 | 13.81 | 15.16 | 16.28 |

Note. The study collected data from participants on their nonsense word fluency (NWF) decoding abilities. The data collected represents the mean, median, and standard deviation (SD) of the participant's scores throughout the duration of the study.

The results shown in Table 4.2 represent the growth students made throughout the course of the study.

Table 4.2*Student Growth in Decoding Throughout Study*

| Grade | Baseline to PM 4 | Students |
|-------|-------------------------|--------------------|
| | Growth in Words Decoded | Amount of Students |
| K & 1 | 0-4 | 21 |
| K & 1 | 5-9 | 18 |
| K & 1 | 10-14 | 6 |
| K & 1 | 15-19 | 6 |
| K & 1 | 20-24 | 2 |
| K & 1 | 25-29 | 0 |
| K & 1 | 30-34 | 1 |
| Total | | 54 |

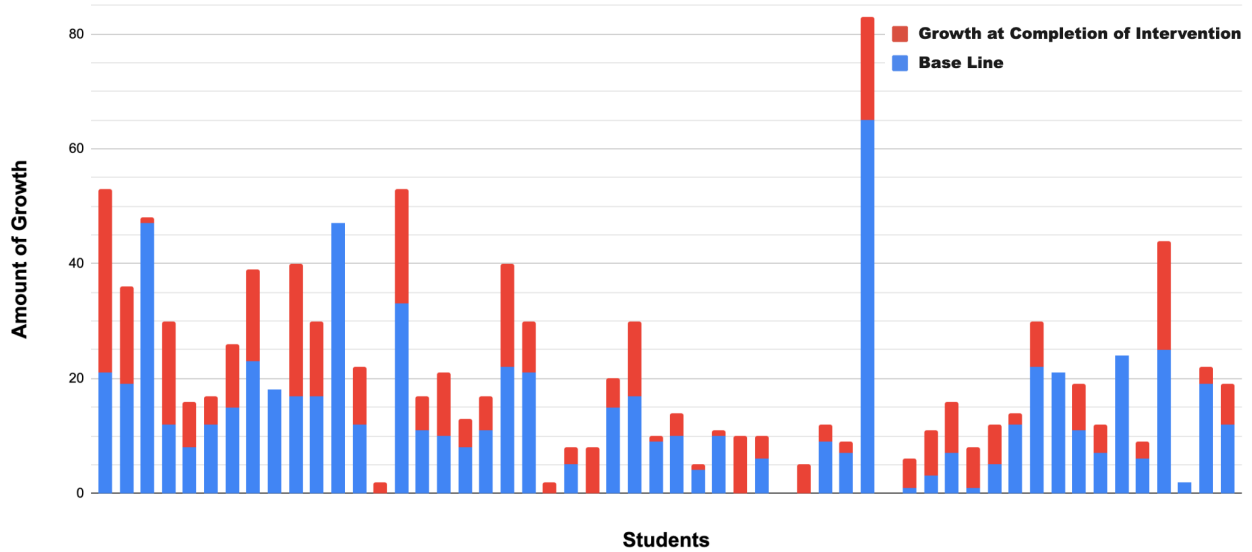
Note. Kindergarten (K) and first-grade (1) student's decoding abilities were assessed on a biweekly basis in order to gather data representing each student's growth in regard to words decoded. The baseline score collected in December of 2022 was compared to the final progress monitoring probe collected during the eighth week of the study (PM 4).

The results shown in Figure 4.1 depict each individual participant's baseline score and the growth that was achieved from baseline at the completion of the study.

Figure 4.1

Student Growth for Duration of the Study

Individual Student Growth

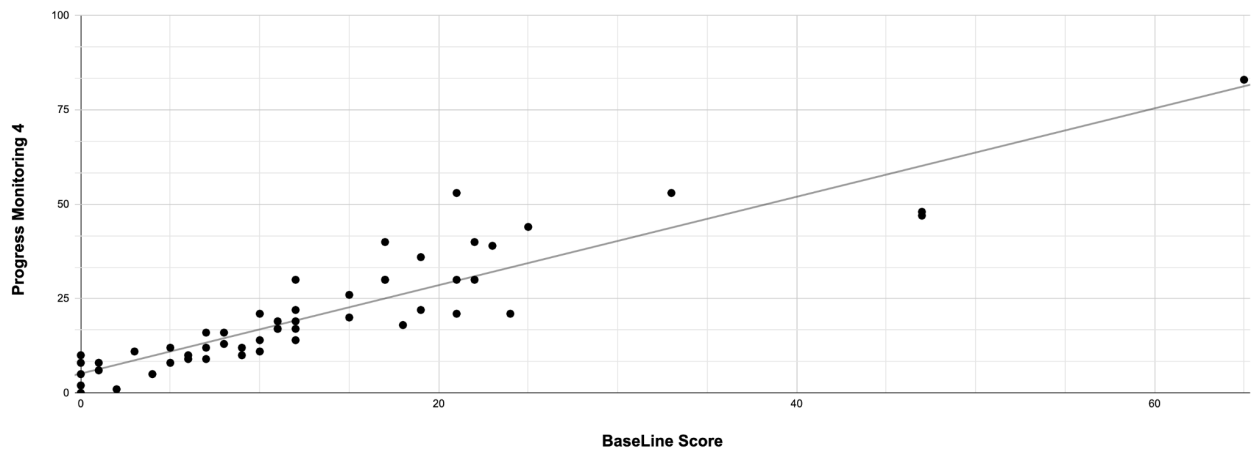


The results shown in Figure 4.2 depict the trend in student growth from the start of the study to the completion of the study.

Figure 4.2

Student Growth Comparison

Baseline and Progress Monitoring 4 Comparison



Data Analysis

The study conducted by the researchers went very smoothly and the researchers did not encounter any difficulties with the assessments given as they were familiar to both the researchers and the participants. As previously stated, according to Illuminate Education Inc. (2023) the FastBridge Nonsense Word fluency assessment is valid and reliable as it provides an opportunity for students to demonstrate decoding skills on words that are not within their vocabulary allowing for an accurate depiction of the student's true decoding skills. The study has proven this to be true as shown in the results obtained by the researchers.

The researchers observed significant growth in the participant's word decoding abilities upon completion of the eight-week study. The data collected indicated that there is a strong correlation between an educator explicitly and systematically teaching phonics, phonemic, and phonological awareness skills with fidelity in a kindergarten and first-grade classroom and a student's ability to decode text. This coincided with research by Castles et al. (2018) who indicated there is powerful correlation regarding the use of explicit phonics instruction for early readers. During the study it became apparent to the researchers the effect their instruction was having on the student's ability to decode familiar and unfamiliar words as most of the participants enrolled in the study made growth between the biweekly nonsense word fluency progress monitoring assessments administered. The data collected also aligned with researchers Melesse and Enyew (2020) who expressed through their research that the development of phonemic awareness skills in early elementary students is critical to the progression of a student's understanding of letters, sounds, and the relationship in decoding words.

It was apparent to the researchers early on in the course of the study that the data being collected was significant as the students showcased their ability to read text with accuracy in decoding and newly acquired confidence with both familiar and unfamiliar words as referenced

by previous researchers in the field of literacy (Ehri, 2022; Mesmer & Kambach, 2022). The researchers also found it to be interesting and impactful that instruction in these early literacy skills was also mirrored in the student's acquisition of spelling as evidenced in their writing. This finding is significant and consistent with findings by Vazeux et al. (2020) as it was noted that the ability of a student to attain and use phonemic awareness skills is a very good indicator of a child's future reading and spelling performance. The early literacy skills the participants have acquired during the course of the study are invaluable, as they will continue to contribute to the student's current literacy abilities and further acquisition of skills in reading.

Recommendations for Future Research

As the researchers collected and analyzed their data, they realized a need for continued training, practice, and implementation opportunities in regard to explicit phonics, phonemic, and phonological awareness instruction for themselves, other colleagues, and professionals within the school district. This coincided with the research suggesting that in order for a teacher to adequately support beginning readers, they must exhibit background knowledge in introductory literacy skills and use that knowledge to drive their reading instruction (Ehri & Flugman, 2017; Hudson et al., 2021). Along with the need for more professional development, the researchers would like to analyze growth in a student's decoding abilities for an entire school year. Thus, allowing the researchers to determine how many students would meet or exceed the spring goal set by FastBridge for nonsense word fluency at their grade level after students have received explicit and systematic literacy instruction for the duration of a school year. In addition, the researchers would also like to determine if there is a correlation between the student's ability to proficiently decode nonsense words and the ability to demonstrate oral reading fluency skills with grade-level text.

Conclusions

Upon beginning this action research project, the researchers expected that explicit phonics, phonemic, and phonological awareness instruction would have a tremendous impact on a student's ability to decode text. Throughout the duration of the eight-week study, the researchers saw more growth than they had initially expected. Research indicated that it was exceedingly beneficial when instructing and coaching students to use an explicit and systematic approach beginning with phonemic awareness and letter-sound correspondences in order to lead to greater success with decoding for beginning readers (Foorman et al., 1998; Melesse & Enyew, 2020; Mesmer & Kambach, 2022; Ryder et al., 2007; Schaars et al., 2017; Vazeux et al., 2020). The results of the study revealed that previous research in early literacy agrees with the findings of the study.

CHAPTER 5

Implications for Practice

Action Plan

Researching and identifying the impact of what role explicit phonics, phonemic, and phonological awareness instruction play in a student's ability to decode text had a significant influence for the researchers early literacy classroom instruction. The study not only positively impacted the researchers, but the participants within each classroom as well. As teachers of early literacy concepts, our ultimate goal is to model and explicitly teach literacy skills guiding students to gain the abilities necessary to be able to apply skills and strategies to decode unfamiliar text independently. The participants gained confidence in decoding abilities, which were demonstrated when applying these skills within real world text. The researchers intend to continue progress monitoring nonsense word fluency of the participants not yet proficient in decoding for the remainder of the school year. This will help to determine if their explicit and systematic literacy instruction continues to produce adequate growth in decoding abilities. The educational impact on students was encouraging and affirming which helped set the stage for a positive learning outcome for the participants. The success and reinforcement of the participants was inspirational to the study. Most participants found a love for reading throughout the study, supporting their progress to becoming a proficient and confident reader.

The advantage of providing the participants with this experience was that it helped to increase their early literacy skills as evidenced by the researcher's results. Thus, pointing toward a need for all educators to have a knowledge, background, and skillset to effectively teach phonics, phonemic, and phonological awareness to their students. These skills are imperative to the success of a student's decoding abilities as they allow students to build the foundational skills

necessary in becoming a more adept reader. Building this foundation early on may allow for students to spend less time and energy decoding as they are reading text, allowing for a greater understanding of the text being read. In addition, early elementary students may need tier 2 or tier 3 less intervention in reading when phonics, phonemic, and phonological awareness skills are explicitly and systematically taught in the classroom.

As educators of early literacy skills, this study has driven home the importance of teaching these foundational skills to our students. We have recognized the impact our instruction has on our students. Although our results were very impactful, we have realized the need for continued professional development including an emphasis on teacher knowledge, preparation, and training of these early literacy skills. Since many of our students are coming into kindergarten and first-grade without the skills necessary to decode, this need has been a discussion amongst our colleagues due to so many students needing early intervention in literacy. With that being said, our school district is in the process of pursuing professional development pertaining to the science of reading including Language Essentials for Teachers of Reading and Spelling (LETRS) training for educators in grades pre-k through 5. This potential professional development opportunity for our school district will be essential for educators to enhance their current abilities to effectively teach literacy skills to all students.

Plan for Sharing

The study has shown the effectiveness of explicit and systematic phonics, phonemic, and phonological awareness instruction on a student's ability to decode text. This instruction has proven to be beneficial for the participants involved in the study. The researchers are eager to share the study and the results with their grade level colleagues and school district administration during their professional learning communities and professional development opportunities.

Professionals within our school district have realized the need for continued professional development and a need to provide our students with a rich environment of literacy skills in order to be successful learners now and in the future. Our hope is that through the sharing of our research findings, our district will invest in a future for our staff and students that promotes professional development and learning opportunities that benefit all those involved in the process of both teaching and learning literacy skills.

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Appendix A

IRB Approval Letter

Institutional Review Board



DATE: February 1, 2023

TO: Kathy Enger, Principal Investigator
Megan Parenteau, Co-investigator

FROM: Dr. Robert Nava, Chair
Minnesota State University Moorhead IRB

ACTION: APPROVED

PROJECT TITLE: [1999995-1] The Effectiveness of Explicit Literacy Instruction on Kindergarten and First-Grade Student's Decoding Abilities

SUBMISSION TYPE: New Project

APPROVAL DATE: February 1, 2023

EXPIRATION DATE:

REVIEW TYPE: Exempt Review

Thank you for your submission of New Project materials for this project. The Minnesota State University Moorhead IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Exempt Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to the Minnesota State University Moorhead IRB. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to the Minnesota State University Moorhead IRB.

This project has been determined to be a project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of .

Appendix B

Signed Site Permission Letter

December 19, 2022

We are working on an action research project, entitled, "The Effectiveness of Explicit Literacy Instruction on Kindergarten and First-Grade Student's Decoding Abilities". Our research will be overseen by our professor, Dr. Kathy Enger. The purpose of this research is to examine the effect on readers when systematic phonics, phonemic, and phonological awareness instruction is explicitly used to teach beginning readers. The study will focus on one kindergarten classroom and two first grade classrooms placing an emphasis on the importance of teaching these crucial early literacy skills. The study will compare the academic reading achievement in all three classrooms to determine if there is an association between explicit phonics, phonemic, and phonological awareness instruction on a student's ability to decode text.

We are requesting permission to engage in the following research activities:

- Utilize classroom literacy curriculum to explicitly teach phonics, phonemic and phonological awareness
- Utilize classroom Nonsense Word Fluency assessment scores

We are seeking approval from Minnesota State University Moorhead's Institutional Review Board (IRB). The IRB will review the adequacy of our plan for protecting participants. They will review data security and confidentiality procedures. A copy of the final letter from the Minnesota State University Moorhead's IRB will be available. This research project will take place during the 2022-2023 school year.

We are responsible for the preservation of the privacy of research participants. We will not name the research participants when we share our research findings. All information received will be kept confidential and will only be used for the purpose of the study. We will work to preserve site anonymity. However, we cannot guarantee that the site will remain unknown.

If you have any concerns about this request please contact us using the contact information listed above.

Sincerely,

Stacy Olson, Megan Parenteau, and Monica Parenteau

In signing this notice, I agree and give consent to the action research project being proposed.


Dave Kuehn


Denice Oliver


Chris Trostad

Date: 12-20-22

Date: 12-19-22

Date: 12-19-22

Dave Kuehn - Superintendent

Denice Oliver - Elementary Principal

Chris Trostad - Elementary Principal

Appendix C

Parent/Guardian Consent Letter

January 9, 2023

Dear Parent or Guardian,

We are graduate students at Minnesota State University Moorhead. We are working towards a master’s degree in Curriculum and Instruction. In order for us to graduate this coming spring, we are required to complete an action research project. This research project will take place within our elementary classrooms.

Your student has been invited to participate in our study which examines the effects of explicit and systematic phonics, phonemic, and phonological instruction on a student’s ability to decode text. We hope to determine the most successful instructional strategies to help young students achieve academic success in literacy. Your child was selected because they are a student within our kindergarten or first-grade classrooms.

Should you give permission for your student to participate, your student will be actively involved in the following instructional practices for literacy:

- Explicit literacy instruction daily for 20 minutes
 - Sound boxes
 - Visual representation of alphabetic letters and sounds
 - Picture and word cards
 - Music and movement focusing on letters, sounds, and sight words.
- Your student will be assessed by their classroom teacher every two weeks using our FastBridge reading assessments to track their academic progress with decoding skills.

Although our administration has already granted us permission to conduct this action research, since this information is being used to help us complete our master’s degrees at Minnesota State University Moorhead, we need to have parental/guardian consent to use this information in our final paper that we are required to do as part of our degree. If we didn’t need this information to complete our master’s degrees, we would conduct this same type of research in our normal everyday lessons in class. If you sign this form, you are giving us consent to use the information that we gather from students. All information that is used will be kept confidential and no names will be used.

Please feel free to ask questions regarding this study. You may contact us if you have any additional questions using the following information: Stacy Olson at _____ or by email stacyolson@mnstate.edu Megan Parenteau at _____ or by email meganparenteau@mnstate.edu and Monica Parenteau at _____ or by email monicaparenteau@mnstate.edu You may also contact the principal investigator of the study, Dr. Kathy Enger at kathy.enger@mnstate.edu.

You are making a decision whether or not to participate. Your signature indicates that you have read the information provided above and have decided to participate. You may withdraw at any time after signing this form should you choose to discontinue participation in this study.

Sincerely,

Stacy Olson, Megan Parenteau, and Monica Parenteau

Signature of Parent or Guardian

Date

Signature of Investigator

Date

Signature of Investigator

Date

Signature of Investigator

Date

Appendix D

Method of Assent

The researchers will tell their students:

I am in school, just like you, to learn. At my school, learning looks a little different than what learning looks like in our classroom. In the next couple of weeks here at school, I am going to be doing a project that will help me understand how to best help you learn to read. Everything we will be doing in class will be the same as we have done it together before. I have sent a letter to your parents or guardians to let them know about the special project I am doing in our classroom. This project will help me to know how to best help you learn reading skills. During the project, I will be doing some assessments to monitor your progress with reading. I need to complete this project to complete my master's degree program in May. Do you have any questions?

Appendix E

FastBridge Learning Nonsense Word Fluency Baseline Screener

Screening Form I

kiv hoz ruc af bix

guc vit zuf tep jin

mof cac wud yof lod

pev nez faz sed dat

kov yef zof rup kuk

kef hiv fum nep bov

tov lus hux buv jex

baz guf mub juv tef

gog jus vam kez mef

woc fex rux huv wot

Appendix F

FastBridge Learning Nonsense Word Progress Monitoring Probe 1

Levels KG & 1 Progress Monitoring Form 1

h u z p a g w a k u x g o p

z u b c a g r i n l u p y a z

d a p b o z t e z n o p i v

f o m v u p j a v k a d m a z

e s s e f g o z p u v v i s

l a c w o x t o s d e z g a z

n u z p a z d a c j i v y a d

z e k k e t u k g a x l u t

n o s j a f z e s r i z l o z

z a d n u d h e s y o z h o v

Appendix G

FastBridge Learning Nonsense Word Progress Monitoring Probe 2

Levels KG & 1 Progress Monitoring Form 2

mez bip sov vef cux

hez jes tib weg yuz

ruf nok fug lig gop

zal ub dof kes ag

pof gix wof vuk ruk

fot tid vub mux tof

dev bup beb hus yoc

bef wis fac fic luz

kuv bax hes jeg hax

nud wez zut zid mib

Appendix H

FastBridge Learning Nonsense Word Progress Monitoring Probe 3

Levels KG & 1 Progress Monitoring Form 3

c u g n e n w a z b e c d i v

t u k l i n z u g v i d p o c

s o m a p y e c r i v h o x

u t f o f m e b k e m j a d

r a f g a n v e b t i z k e x

t a f h o f k a k v i g l u n

z o m n i s t i f n i n k o s

p i f b a b d e g p i d l e k

m e v h e g k a c l e z h e b

v u v t u v b o k n a z s e m

Appendix I**FastBridge Learning Nonsense Word Progress Monitoring Probe 4**

Levels KG & 1 Progress Monitoring Form 4

k u b l o m r a s t i v z u k

v a k p e l j a s a b g u p

y a t h e f o p i p f a s

b i v d e t e p m a f n o f

s e s w a b c a s f a p p o z

y a c t a z p o v l e b g u z

z i l f u b t o b r e t y a x

k e p t u s r i v d a g n a s

f i d z i b d o d y e z t o z

d a k r o m f i s p o b n i v