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## Increasing Phonemic Awareness Instruction: A School Improvement Plan

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## **Increasing Phonemic Awareness Instruction: A School Improvement Plan**

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EDU635- Capstone

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### **Abstract**

Research findings show phonological awareness is one of the most important skills and predictors of future reading success. Studies have also shown the link between phonemic awareness to reading abilities and the lack of pre-service and in-service teacher knowledge of basic language constructs. While looking at the research findings, a school improvement plan was created to include a supplemental phonemic awareness program to increase student knowledge and skills. It also increased teacher knowledge through a training and additional professional developments based on teacher needs. This project will add to previously collected data which compares proficiency in Lambert Elementary students to the local AEA and state of Iowa. It will also compare historical data within the school and growth from the beginning of the school year to the end of the school year. If implemented effectively, the goal is to see growth in student proficiency of phonemic awareness skills.

*Keywords:* Phonemic awareness, phonological awareness, teacher knowledge, language-constructs

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## **Increasing Phonemic Awareness Core Instruction: A School Improvement Plan**

When students begin their school careers, lots of new learning is happening daily. They are learning how to be a student, make friends, manage their emotions, and learn the curriculum. By the end of kindergarten, students are expected to identify letter names, letter sounds, write, and read. Research has suggested the most important of these skills is phonological awareness (Siegel, 2013, p. 9). Phonological awareness is an umbrella term that incorporates sentence awareness, word awareness, syllabication, rhyming, and phonemic awareness (Kenner, et al. 2017). These areas all serve a crucial role in the ability for students to learn how to read successfully. Phonological awareness skills are developed in the early stages of development. The problem with developing proficient reading abilities begins to occur when reading instruction is taught before the foundational skills are fully developed (Siegel, 2013).

After reviewing literature surrounding the topic of phonological awareness, it is evident it plays an important role in literacy. As children develop, they naturally become speakers. However, they need exposure and practice to become more aware of the phonemes that are used in the spoken and written language. The literature also showed how phonemic awareness is needed before children can master phonics and mapping their spoken language into written language (Siegel, 2013). This may come easier for some students than it does others. Early intervention can provide students with the opportunity to prevent further reading difficulties (Rachmani, 2020; Goldstein, et al. 2017). Phonological awareness is one of the most crucial predictors of reaching achievement (Kenner, et al. 2017).

Phonological awareness is one of the most important skills developed early on and a foundational piece in learning how to read (Siegel, 2013). The problem with teaching these skills occurs when there isn't sufficient teacher knowledge combined with a lack of a strong phonemic

awareness curriculum. The purpose of this school improvement plan is to address lack of teacher knowledge about phonemic awareness, the importance of phonemic awareness skills in elementary schools, and the link to reading abilities. It will also address providing teachers with professional development to enhance their knowledge and efficacy of language structures.

Resources were found using the DeWitt Library at Northwestern College. Articles were included if they were written within the last 10 years, published in a peer reviewed journal, and was not limited to a specific geographic region. The articles included keywords such as phonemic awareness, phonological awareness, teacher efficacy, teacher knowledge, and interventions. These articles included research data focused on the impact of phonemic awareness, teacher knowledge gaps, and phonemic awareness interventions.

Phonological awareness is one of the most important skills that is developed early on and a foundational piece in learning how to read (Siegel, 2013). This finding is valuable specifically for early childhood classrooms and the foundations of reading skills. When phonemic awareness skills are not explicitly taught before reading instruction, this can lead to children falling behind their peers and staying behind them in the years to come. However, early intervention can provide students with the opportunity to prevent further reading difficulties (Goldstein, et al. 2017). Phonemic awareness is one of the most crucial predictors of reaching achievement and teachers need to be provided with the knowledge needed to effectively teach these important skills (Kenner, et al. 2017).

This literature review will be structured into themes found within the research articles. These themes include phonological and phonemic awareness, the relationship between phonological awareness and reading, and teacher knowledge. The first theme will review studies focused on the importance and impact of phonological awareness and phonemic awareness. The

next theme focuses on studies showing the relationship between phonological awareness and reading abilities. The last theme switches to show the shocking gap in teacher knowledge pertaining to these important literacy skills.

## **Review of the Literature**

### **Phonological and Phonemic Awareness**

Phonological awareness and phonemic awareness are two areas critical to reading. Thompson (2022) states it is a key component to early literacy and one of the best predictors of future reading abilities. Phonological awareness includes an umbrella of skills such as sentence awareness, word awareness, syllabication, rhyming, and phonemic awareness (Kenner, et al. 2017). Specifically, phonemic awareness is an auditory skill of being able to identify and manipulate sounds within a word. Over the years, it has become known that phonological awareness and phonemic awareness are critical components of learning to read. There have been a variety of studies done focusing on the importance of these skills at a varying age levels.

While many students learn to read during their time at school, evidence has shown many students never become proficient readers (Kenner, et al. 2017). However, it has also been asked when are these skills attained by children. In a study done by Kenner, et al. (2017), they used a developmental progression of skills to identify when children begin emergent phonemic awareness skills. This study focused on kids who were 2.5 to 3.5 year olds. The researchers measured the child's ability versus chance. Chance was set to a rate of .50 and compared to the mean proportional rates ( $M=$ ). It is shown that 3.5 year olds exceed chance in the segmenting task ( $M=.63$ ), while 2.5 year olds did not exceed chance ( $M=.54$ ). Both 2.5 ( $M=.59$ ) and 3.5

(M=.66) year olds exceeded chance in blending. Evidence was observed showing there are emerging phonemic awareness skills in children as young as 2.5 years of age.

Many studies have also focused on the effect of phonemic awareness interventions including direct instruction. Per research done by Goldstein, et al (2017), students who lag their peers in kindergarten will often struggle throughout their schooling in their reading abilities. They conducted a study to compare two different interventions, Path to Literacy and Story Friends. Path to Literacy was an intervention focused on phonemic awareness and Story Friends focused on basic skills and vocabulary. According to their results, 82% of the students met or exceeded benchmark for kindergarten using Path to Literacy, while only 34% of students using Story Friends met benchmark. The results of this research show the benefits of using direct instruction to teach a phonemic based intervention.

Another study done by Rachmani (2020) also addressed phonological awareness interventions. In this study, the intervention focused on explicit small group instruction of phonological awareness skills and alphabet knowledge. The intervention was twice a week for 10-15 minutes a time in a preschool classroom. In table 1 (p. 259), Rachmani stated the mean (M) and standard deviation (SD) of the pretest and post test scores for both the intervention group and control group. The results of this study showed the intervention group made greater gains than the control group from the pre-test to the post-test. The intervention group showed more growth in the areas of uppercase letters (M=3.23 to M=8.62), letter sounds (M=.08 to M=3.38), and beginning sounds (M=1.61 to M=8.31). They also measured name writing, lower-case letters, and rhyming. However, it is noted although they did not show a large difference between the groups, the intervention group scored higher than the control group on each skill (p.



259). As data suggests, the reading gap is becoming more significant. Per the results of this study, it would be beneficial to have focused intervention groups starting as young as preschool.

There is many research based articles to show the significance of phonological awareness and phonemic awareness. Suggate (2016) reviewed the research and looked at the long-term effects interventions, focusing on phonemic and phonological awareness, may have on students. Suggate looked at 16 studies. Each of these studies compared an intervention group and a control group. Of the interventions presented, 64.80% included phonemic awareness skills and 53.50% included phonological awareness skills. During this study, they looked at the immediate results and included a follow up assessment. The results showed how phonemic awareness interventions resulted in the largest effect size at the follow up assessment. Phonemic awareness skills have a lasting effect on students as they go through their schooling.

These studies suggest phonemic awareness and phonological awareness are both critical components of development. Two of the studies presented showed this can begin at a young age. Kenner, et al. (2017) showed evidence on how these skills can be seen in children as young as 2.5 years old. Rachmani (2020) also showed evidence of the effects of interventions in preschool children. One of the most astounding findings is the longitudinal effect these skills can have on students. The study concluded by Suggate (2016) suggested phonemic awareness skills showed the greatest effect size when assessed later in their schooling. These studies also suggest there is a strong link between phonological awareness skills and reading abilities.

### **The Relationship Between Phonological Awareness and Reading**

As children begin to learn how to read, they are learning how to “crack the code”. Children are first learning how to decipher between each grapheme and the phoneme which

belongs to it. They are asked to produce the word orally by blending and relating the word to the meaning. While children grow, they are naturally exposed to the written and spoken language. However, they may not have been exposed to direct literacy instruction (Vazeux, et al., 2020). It has been shown that there becomes a problem in reading difficulties when reading skills are taught before phonological skills have been mastered (Siegel, 2013). It can also be noted research has shown phonological skills act as a strong predictor of reading abilities.

The English language is based on phonemes. Students are asked to decode the phonemes when reading and encode them when spelling. To be proficient in these areas, students must first have a strong foundation and understanding of the phoneme system (Uhry, 2013). There have been studies done to look at the relationship between phonemic awareness and the development reading skills. However, in a study conducted by Vazeux, et al. (2020), data showed students do not have to first learn the letter and phoneme correspondence to enhance their reading abilities. The data suggests the greatest effect was with the group of students who were taught letters-to-syllable correspondences rather than letter-to-phoneme correspondences (p.4). While there are many phenomenon regarding the best way to “crack the code” of reading, it can be noted that phonemic awareness is a crucial factor on both sides of the argument.

Bar-Kochva & Nevo (2019) recently look at the relationship between phonological awareness, rapid-naming (RAN), and speed of processing. This was a longitudinal study which followed students from kindergarten to second grade to see if there was a correlation between when these skills were mastered and how it affected them later in school. While looking at the kindergarten data, it was showed only RAN showed a difference in spelling and word reading abilities by second grade. However, when you looked at the first-grade data, both RAN and phonological awareness predicted spelling and word reading. While phonological awareness

alone only predicted decoding skills in second grade. From this study, it can be concluded phonological awareness skills can predict future reading abilities.

It is evident that phonemic awareness skills are best taught using direct, explicit instruction to enhance their reading abilities (Botts, et al. 2014). Becker & Sylvan (2021) completed a study to see how phonemic skills are effected when delivered collaboratively. During the study, a teacher and speech pathologist worked together to teach lessons collaboratively. If students were seen to be falling behind, the speech pathologist worked in a small group with those students. The data suggested using articulation placement strategies enhanced the phonemic awareness skills when delivered collaboratively. The data showed phoneme segmentation went from a mean score of .53 to 4.47 after direct, collaborative instruction. Another finding showed reading phonemically spelled words went from .18 to 7.65 after the direct and collaborative instruction (p. 670). Using direct and collaborative instruction would be beneficial for students to increase and enhance their phonemic awareness skills.

Another study completed by Botts, et al (2014), showed significant results in terms of using direct, embedded instruction. The study consisted of two intervention groups. One intervention group included activity based instruction and the other group used direct, embedded instruction. To move on to a new skill, students needed to show 100% accuracy in three consecutive sessions. During this study, data showed how embedded direct instruction resulted in acquiring target skills more effectively and acquired the skills at a more rapid rate. 60% of the students in the direct instruction group met the criteria and moved on to a new skill. While 0% of the students in the activity based instruction met the criteria to move on. Based on the results of the study, it can be concluded that direct, embedded instruction is an effective and efficient way for students to quickly acquire new literacy skills.

## **Teacher Knowledge**

Depending on where the teacher is receiving their degree, there are a variety of requirements for pre-service teachers. Each state has their own set of standards for course work and field experiences in the teacher education programs. Although each college program may vary, it has become evident many teachers are lacking knowledge in basic language constructs (Martinussen, et al., 2015; Washburn, et al., 2016). No matter where they received their degree. Basic language constructs refer to areas of our language such as phonology, phonics, morphology, and phonemic awareness. Pre-service teachers are going into their teaching careers not having the basic understanding and knowledge of these literacy skills. They are also lacking self-efficacy in teaching these skills (Martinussen, et al. 2015; & Stark, et al.,2016).

In a study done by Clark, et al. (2017), they looked at content knowledge of pre-service teachers. The researchers believed this knowledge was needed to teach reading to elementary students. In the study, it showed the teachers answered 68% of the questions correctly overall. However, when broken down into content areas, they only answered 62% correctly of phonological awareness and 70% of phonics correctly. Washburn, et al. (2017) also conducted research on pre-service teacher knowledge. The study showed pre-service teachers did not have strong knowledge of basic language constructs. The mean test score was 70%. All groups performed below 70% when it came to explicit knowledge of language constructs. Overall, both studies showed a need for pre-service teacher knowledge to increase to effectively teach literacy skills to students.

Pre-service teachers aren't the only ones who are lacking these literacy skills. There have been studies conducted pertaining to the in-service teachers' abilities as well. Aro and Björn (2016) stated their findings showed both pre-service teachers and in-service teachers showed

room for growth. During their studies, in-service teachers scored 71.6% in phonology and phonics and only 38.6% in morphology. In another study performed by Pittman, et al. (2020), their data showed teachers do not have the knowledge to effectively teach reading. Out of 150 teachers, the mean score was 58.58%. In other words, the teachers only scored about half of the questions correctly. Similar results are seen in a study conducted by Stark, et al. (2016) where the mean score was 55%. This study also included only 59% of teachers were confident in their answers.

Although teachers are not being provided with adequate learning of language constructs, they can still be explicitly taught these skills through professional development. Stark, et al. (2016) reported 12.8% of teachers felt they gained their knowledge through classroom experience, 4% said from pre-service training, and 15.4% learned through professional development. Studies also suggest teachers can increase their knowledge through explicit instruction and practices (Martinussen, et al. 2015; Purvis, et al. 2016). As schools begin to prepare their professional development opportunities, there are strategies they can use to ensure they are providing their teachers with high quality learning. Per Schachter, et al. (2019), schools should first select development content focused on the teachers' interests and goals. They should also focus on a content area for an extended amount of time. The professional development should provide staff with a time for observations, practice, and self-reflection of their teaching practices. High quality professional development can be used to bridge the gap in teacher knowledge of language constructs.

While looking at the studies, one can note there is a discrepancy when it comes to teacher knowledge and understanding of language constructs. Their lack of knowledge becomes a problem when they are expected to teach these skills to their students in the elementary

classroom. There is also a concern in student phonological awareness skills. When pairing lack of teacher knowledge and low student ability together, there becomes an even greater concern. For teachers and students to both be successful, these concerns need to be addressed. This can be done through a school improvement plan focusing on professional development to increase teacher knowledge and a direct and explicit curriculum to increase student knowledge.

## **School Profile**

### **School District Characteristics**

Located in Northeast Iowa, the West Delaware CSD serves students from the communities of Manchester, Greeley, Ryan, Dundee, and Masonville. The district is composed of Lambert Elementary school, West Delaware Middle School, and West Delaware High School. Lambert Elementary School houses students in grades preschool- 4<sup>th</sup> grade. According to the State of Iowa (2021), in the 2021-2022 school year, Lambert had 427 students enrolled. The students were 90.2% white students, 3% Hispanic, 4% Black/African American, 0.5% Native American, 0.2% Asian, 0.2% Hawaiian/Pacific Islander, and 1.9% multi-racial. The student body consisted of 53.9% male and 47.1% female students. It was also noted there were 13.1% of students on an Individualized Education Plan (IEP). There are 0.9% English Learners at Lambert and about 47.1% of students participate in Free and Reduced Lunches.

### **Student Performance**

When looking at school performance, Lambert had an average school achievement of 50.94/100 in language arts and 51.32/100 in mathematics. Both surpassed the state average of 50/100. Lambert was also 65.21% proficient in mathematics and 69.08% proficient in language arts. The state proficiency average in math was 65.21% and the state proficiency average in language arts was 68.95%. Lambert students surpassed both state average proficiencies in math

and literacy as well. The overall rating of Lambert Elementary School was 56.6/100. Which put them at an overall performance of commendable (State of Iowa, 2021).

### **Community Characteristics**

Lambert Elementary School is located in Manchester, Iowa. Manchester sits about 47 miles from Cedar Rapids, 48 miles to Waterloo, and about 44 miles to Dubuque. According to the 2020 Census, Manchester has a population of 5,065 people. This broke down to about 1, 104 people per square mile. In Manchester, 97.8% of the population is white, 2% are two or more races, and 1.4% are Hispanic. About 74.6% of the housing in Manchester is occupied by the owner and the median housing cost was about \$113, 300. The median household income was \$49,729 (U.S. Census Bureau, 2020).

### **Parent Involvement**

In the West Delaware CSD, parents have a variety of ways they can be involved and stay informed about their child's progress. The school district uses JMC to keep parents up to date with attendance, grades, and other announcements. The upper grades also use Google Classroom while the younger grades use SeeSaw as a communication platform. Progress reports are sent out three times a year and the parents also have the opportunity to meet at parent-teacher conferences twice a year. As a district, there is a newsletter sent out monthly and each individual grade in the elementary sends out their own newsletter specific to their content and learning. Other opportunities for parents to be involved include volunteering in the school. There are a variety of ways to do this through the volunteer coordinator. Parents may also choose to be part of an organization such as the West Delaware Academic Booster Club (WDABC). Lastly, parents always have the option to stay up to date through the school website. Parent involvement is a key component to their child's educational needs.

**District Mission & Vision**

The West Delaware CSD mission and vision combines relationships, challenging academics, and 21<sup>st</sup> century skills. They believe in supporting positive student behavior, enhancing adult and student connections, active student engagement in rigorous learning, and creating learning experiences through real work context while using career readiness skills. At Lambert, they share a vision to build positive relationships to ensure students feel safe, confident, and supported while instilling ethics to prepare students to be contributing members of society (West Delaware CSD).

**Student Learning Goals**

As a building, Lambert Elementary school participates in state testing throughout the school year. These include FastBridge and ISASP (Iowa Statewide Assessment of Student Progress). Both are used to assess student knowledge and identify learning gaps. Students are assessed using FastBridge three times a year and ISASP once a year. The district also uses their progress reports of state standards to assess students based on a proficiency scale. A student is considered proficient when they receive a “3” on the standard. Each grade level looks at the data to create specific goals. However, the Building Leadership Team (BLT) also uses this data to create a building goal focused on student learning. For the 2021-2022 school year, the academic building goal was to achieve 80% of students receiving a score of “proficient” on their progress reports of the essential learning standards in both literacy and math. As the school year came to an end, there were some grades who achieved this goal and others who did not. However, as a building, the goal was not achieved and it will be analyzed by the BLT over the summer.



## **Curriculum & Professional Development**

Lambert uses a variety of curriculums to focus on math and literacy skills. In the 2019-2020 school year, Lambert adopted Eureka Math. Eureka is a hands-on curriculum focusing on carefully progressing students through the standards using modules. Before starting the curriculum, the staff was taken through professional development. The professional development continued throughout the school year and into the second year of implementation. Lambert also uses Wonders for literacy curriculum. In the 2021-2022 school year, they adopted the 2020 version of Wonders to be implemented. As stated above, Lambert uses state assessments and progress report assessments to assess students throughout the year. During the 2021-2022 school year, Lambert focused their professional development on the Science of Reading. This professional development took place during most the school year and staff will continue with an implementation of their learning for the 2022-2023 school year.

## **Needs Assessment**

While Lambert Elementary school has some very strong curriculums, they could use improvement in their phonemic awareness curriculum. They are currently using Wonders for their literacy program. Wonders does incorporate phonemic awareness pieces throughout their weekly units. However, research has shown how students benefit from daily, direct, and explicit instruction (Botts, et al., 2014; Becker & Sylvan, 2021). It is being proposed that Lambert Elementary School supplements their literacy program with an additional phonemic awareness program. Phonemic awareness is known to be a very important foundational skill which can be used as a predictor of future reading abilities (Siegel, 2013; Kenner, et al. 2017). To enhance reading abilities, it is important to incorporate a curriculum to provide students with the opportunity to master these phonemic awareness skills. This can be done through a

developmentally appropriate program which uses targeted instruction and an early intervention approach for these foundational skills.

Research has also shown the lack of teacher knowledge in these foundational skills (Aro and Björn, 2016; Pittman, 2020). One way to improve this knowledge would be to professional development related to the phonemic awareness curriculum. Last year, the teachers at Lambert Elementary school completed a professional development on the Science of Reading. In the early grades, this professional development focused on the importance of foundational skills. While this professional development will be continuing through next school year, it would be beneficial to be trained in the phonemic awareness curriculum being proposed. Stark, et al. (2016) reported 12.8% of teachers reported they gained their knowledge through in classroom experience and 15.4% learned through professional development. By combining these two models, the staff at Lambert Elementary school will be given the opportunity to increase their knowledge of phonemic awareness skills through experience inside and outside of the classroom. In return, students will benefit from the direct and explicit instruction given through a developmentally appropriate curriculum.

## **Data Analysis**

### **Data Collection**

Data was collected through a variety of assessments throughout the 2021-2022 school year. This includes yearly data, historical data, and comparative data. The data includes FastBridge state assessments, Phonological Awareness Skills Test (PAST), and the school's progress report assessments. The first set of data contains comparative data from Lambert Elementary School, Keystone AEA, and the Iowa Department of Education (Figure 1). This table

looks at the percentage of students at or above benchmark on the FastBridge assessments. The goal is to have 80% of students at or above benchmark.

**Figure 1**

**2021-2022 Comparative Data - Percent At or Above Benchmark on CBM/earlyReading**

	<b>Spring 2019</b>	<b>Winter 2020</b> <b>Spring (not available)</b>	<b>Spring 2021</b>	<b>Spring 2022</b>
<b>Lambert</b>	68%	74%	62%	64%
<b>Keystone AEA</b>	62%	67%	58%	61%
<b>IA Dept. Ed</b>	68%	71%	63%	66%

Historical data was also collected based on just Lambert Elementary School (Figure 2). This data refers to the percentage of students at or above benchmark on earlyReading (K-1<sup>st</sup>) and CMB (2<sup>nd</sup>-4<sup>th</sup>). Each grade level is colored coded and follows them throughout the last three school years. In the 2021-2022 school year, 4<sup>th</sup> grade was the only grade level at 80% proficient during the Spring 2022 assessment period. As a building, we were at 67% at or above benchmark.

**Figure 2****Historical Data: Percent at benchmark on earlyReading (k-1) and CMB (2-4)**

	Fall	Spring	Fall		Fall	
Fall CBM/earlyRdg	19/20	19/20	20/21	Spring 20/21	21/22	Spring 21/22
<b>K</b>	79%	COVID	63%	59%	70%	67%
<b>1</b>	77%	COVID	39%	41%	45%	55%
<b>2</b>	75%	COVID	54%	62%	42%	56%
<b>3</b>	79%	COVID	49%	77%	63%	74%
<b>4</b>	78%	COVID	61%	73%	63%	81%
<b>Building</b>	78%	x	53%	62%	54%	67%

The next data table was collected through administration of the PAST during the 2020-2021 and the 2021-2022 school year. The Instructional Coach assessed a random sample of students. She chose some students who were above benchmark and some who were below benchmark on state assessments. This sample for the 2021-2022 year included JK/Kindergarten, 1<sup>st</sup> grade, 2<sup>nd</sup> grade, and 3<sup>rd</sup> grade. There were also students assessed during the 2020-2021 school year. This sample included grade levels of JK/Kindergarten, 1<sup>st</sup> grade, and 5<sup>th</sup> grade (Figure 3).

**Figure 3****PAST Assessment**

	Syllable Level Proficiency SPRING 21	Syllable Level Proficiency SPRING 22	Onset- Rime Level Proficiency SPRING 21	Onset- Rime Level Proficiency SPRING 22	Basic Phoneme Level Proficiency SPRING 21	Basic Phoneme Level Proficiency SPRING 22	Advanced Phoneme Level Proficiency SPRING 21	Advanced Phoneme Level Proficiency SPRING 22
<b>JK/Kinder</b>	14%	13%	23%	33%	6%	0%	0%	0%
<b>1st Grade</b>	58%	56%	88%	81%	29%	26%	4%	0%
<b>2nd Grade</b>	-----	77%	-----	86%	-----	59%	-----	18%
<b>3rd Grade</b>	-----	88%	-----	75%	-----	71%	-----	21%
<b>5th Grade</b>	35%	NA	80%	NA	55%	NA	0%	NA

Most grade levels performed below proficiency. However, 1<sup>st</sup> grade and 2<sup>nd</sup> grade performed above proficiency on Onset/Rime Level. 3<sup>rd</sup> grade performed above proficiency on Syllable Level proficiency and 5<sup>th</sup> grade performed above proficiency during the 2020-2021 school year on Onset-Rime Level. Kilpatrick (2015), suggests a range of developing proficiency. Syllable Level should be preschool to late kindergarten, Onset-Rime kindergarten to mid-first grade, Basic Phonemic Level is early to late first grade, and Advanced Phoneme level should be proficient by early to late 2<sup>nd</sup> grade.

Lastly, this set of data comes from the school’s progress reports. The school assesses students on standards throughout the year. The goal is for students to be proficient (scoring a 3) by the end of the school year. The standards that were focused on for this data are the Reading Foundational Skills from the Iowa Common Core Standards (n.d). These standards are the grade levels “essential learnings”. Reading foundational skills include areas such as print concepts, phonological awareness, phonics, and fluency. The table is broken down into each grade level, each standard assessed, and the percentage of students who were proficient at each standard (Figure 4). The red percentages represent the standards in which students did not accomplish proficiency in. Overall, Lambert had achieved proficiency in 50% of the reading foundational skills standards listed.

**Figure 4**

<b>Kindergarten Standards</b>	<b>% of students scoring 3</b>
RF.K.1.d	87%
RF.K.2.a	83%
RF.K.2.b	88%
RF.K.2.c	93%
RF.K.2.e	74%
RF.K.3.a	97%
RF.K.3.d	74%
<b>1<sup>st</sup> Grade Standards</b>	<b>% of students scoring 3</b>
RF 1.2.a	82%
RF 1.2.b	60%

RF 1.2.c	98%
RF 1.2.d	84%
RF 1.3.g	52%
<b>2<sup>nd</sup> Grade Standards</b>	<b>% of students scoring 3</b>
RF.2.3.a	85%
RF.2.3.b	62%
RF.2.3.d	75%
RF.2.3.f	78%
RF.2.4	48%
<b>3<sup>rd</sup> Grade Standards</b>	<b>% of students scoring 3</b>
RF.3.3.a	87%
RF.3.4	76%
<b>4<sup>th</sup> Grade Standards</b>	<b>% of students scoring 3</b>
RF.4.4	81%

### School Strengths

While looking Figure 1, a strength to be noted is how Lambert Elementary compares to both the surrounding AEA and at a state level. Lambert has consistently outperformed the other Keystone AEA schools each year. At the state level, Lambert has consistently either trailed slightly behind or slightly ahead of the rest of the state. Another strength is in Figure 3. Both the first grade and second grade Onset-Rime Level is above 80% proficiency. Third grade is also very close with a 75% proficiency. Lastly, it seems when it comes to foundational skills,

Lambert is about 50% proficient. However, there are another five standards in which they are just falling below the 80% proficiency goal.

### **School Challenges**

This data shows a variety of challenges throughout Lambert Elementary and each grade level. Overall, it can be noted the phonemic awareness level of many students and grade levels are not proficient. This is seen in Figure 3 and the PAST data. This data is unique because it is strictly focused on phonological awareness. Some of the other assessments and standards focus on a variety of skills outside of phonological awareness. While Lambert scores above or right with Keystone AEA and the state of Iowa, it seems they have been challenged with being consistently proficient in their state assessments at all grade levels (Figure 2). Although the state assessments do not focus directly on phonemic awareness skills, the earlyReading assessment has subtests focusing on these individual skills. This includes subtests including letter sounds, segmenting, beginning sounds, etc.

The PAST assessment was also a very large challenge for Lambert. During the 2021-2022 school year, only two grade levels showed proficiency in one subgroup of the assessment. Otherwise, each subgroup of the assessment was below proficient for each grade level. This assessment is important because it focuses solely on the phonological awareness skills. From these results, it can be determined Lambert needs to have a large focus on their phonological awareness and phonemic awareness skills. As stated above, these skills are predictors of future reading success (Kenner, et al. 2017). It is not evident that Lambert needs additional assessments. However, it would be necessary to continue adding to this collection of data each year to see how the purposed school improvement plan affects student learning.



## **Action Plan**

### **Purposed Improvement Plan**

After reviewing the literature and themes, phonological awareness is an important aspect of student learning (Siegel, 2013). The literature also suggested teachers lack the knowledge needed to adequately teach these skills to students (Pittman, et al. 2020). The proposed improvement plan seeks to help Lambert Elementary staff increase their knowledge of phonemic awareness and, in return, increase student knowledge. This will be done through using Heggerty Phonemic Awareness Curriculum, training staff in the curriculum, using professional development to further their knowledge and discussions, and using student data to assess the effectiveness of the program and the plan.

Heggerty Phonemic Awareness Curriculum has curriculums broken down into Kindergarten, Primary (1<sup>st</sup>-2<sup>nd</sup>), and an intervention option for students in 2<sup>nd</sup> grade and above. Although each grade level varies slightly, the curriculum provides students with daily lessons which focus on phonemic awareness skills throughout the school year. Each curriculum is provided with an age appropriate scope and sequence that builds upon itself as the year goes on. The lessons are fast paced, engaging, and can be completed in about 8-10 minutes. Per the Heggerty website, when the lessons are taught consistently and with fidelity, teachers see improvement in reading, spelling, and writing (Heggerty, 2020). Research has shown using direct, explicit instruction helps students acquire and maintain skills more effectively (Botts, et al, 2014; Becker & Sylvan 2021). Which is exactly what Heggerty aims to do.

## Steps to Solve the Problem

The following steps describe the implementation of the curriculum training, professional development, and student data analysis. After the curriculum has been reviewed by administration, the staff will be asked to participate in training days before the start of the school year. These steps will ensure consistent expectations among the staff and administration for what to expect throughout the school year to solve the problem with phonemic awareness development at Lambert Elementary School.

1. Administration to approve curriculum by August 1<sup>st</sup>, 2022.
2. A google form will be sent out to teachers for input on which days would work best for training.
3. Instructional coaches, curriculum director, and principal will schedule an in-person training for staff before the start of the school year.
4. Staff will participate in curriculum training. The training will last three hours and include in-depth understanding of the phonemic awareness skills, observe model lessons, and discussions about the content and teacher questions (Heggerty, 2020).
5. At the start of the school year, the instructional coach will administer the PAST assessment to a random sample of students from each grade level.
6. Students will complete fall state assessments
7. Teachers will implement the Heggerty Curriculum (kindergarten-2<sup>nd</sup> grade) or interventions (3<sup>rd</sup>-4<sup>th</sup> grade) daily with fidelity.
8. Observations
  - a. The instructional coach and curriculum director will come observe classrooms randomly during their Heggerty time. This will allow teachers to ask questions

and for staff to see if they are using the curriculum consistently among grade levels and teachers.

- b. This will be completed quarterly.
9. Staff will complete professional development throughout the year focused on questions they have or individual phonemic awareness skills.
10. Students will complete winter and spring state assessments.
11. Instructional coach will administer the PAST assessment to the same set of students to see growth.
12. Teachers will assess students on a proficiency scale for the essential standards with a goal of 80% of students being proficient.
13. Staff will analyze the student data from the 2022-2023 school year. Discussions will take place to analyze student growth in skills, their challenges, and compare the data historically. The data for the 2022-2023 school year will be added to the data presented in Figures 1-4.
14. Staff will create an implementation plan for the 2023-2024 school year to ensure continued growth in phonemic awareness skills.

Although these steps may be adjusted as the year goes on, it is a foundational start to solving the problem. These steps will allow all staff to be on the same page about where they are and where they want to be in terms of their success in state assessments and proficiency with state standards. The steps included curriculum training, professional development, and student data analysis. However, this does not mean their jobs are done here. Other areas such as creating

a timeline, providing resources, assigning responsibilities, and monitoring the plan will also need to be put into place for a successful school improvement plan to take place.

### **Implementation of School Improvement Plan**

#### **Timeline**

To achieve a successful school improvement plan, staff and administration will need to follow a timeline of implementation. First, administration will need to approve of the new curriculum prior to August 2022. After they have approved of the curriculum, staff will be sent a Google Form of dates and times which would work for a 3-hour in person training with a representative from Heggerty. Training will take place prior to school starting in August of 2022. In September of 2022, the instructional coach will select a random sample of students from kindergarten-4<sup>th</sup> grade to assess in the PAST assessment. She will then reassess the same sample of students in May of 2023.

Teachers will be implementing the Heggerty curriculum (k-2<sup>nd</sup> grade) or the intervention (3<sup>rd</sup>-4<sup>th</sup> grade) daily using direct and explicit instruction as outlined in the program. While staff is implementing the program, they will be observed randomly four times throughout the year. The staff observing will be looking for proper implementation of the program with fidelity. As needed, the staff will participate in professional development about the curriculum or specific phonemic awareness skills. These professional developments will be formed based on feedback from teachers as they are implementing the Heggerty curriculum. The teachers will conduct the FastBridge state assessments in the fall, winter, and spring screening periods. They will also administer grade level assessments for state standards for the school's progress reports. Lastly, data will be collected throughout the year and will be used to compare historically and with growth throughout the school year.

## **Staff Responsibilities**

### ***Administration and Staff Leaders***

The building principal, instructional coach, and curriculum direction will be responsible for accepting the new phonemic awareness program. They will meet before August 2022 to review and approve the school improvement plan to be implemented during the 2022-2023 school year. Once accepted, they will schedule the 3-hour training for staff. The instructional coach will be responsible for administering the PAST assessment in September of 2022 and May of 2023. They will also create and administer a Google Form to be sent out for staff feedback four times during the school year. This feedback will be used to create professional development sessions throughout the school year. The curriculum director and instructional coach will partner together to observe classroom four times throughout the year to check fidelity of implementing the curriculum. Administration and staff leaders will collect the building data to compare historically and the growth during the school year.

### ***Teachers***

The teachers will be responsible for attending the training on the curriculum and implementing the program with fidelity daily. They will administer the state assessments during the fall, winter, and spring screen periods. Teachers will be asked to respond to the Google Form for feedback about questions or concerns they have regarding the curriculum. This data will be used to create professional development for the staff throughout the year. Teachers will also administer their grade level assessments for state standards. This will be done during the three grading periods throughout the year to be reported out to parents.

**Monitoring**

The success of the plan will be monitored through a check-list that will be reviewed monthly. This allows for staff to ensure they are staying on track for the implementation plan. The effectiveness of the curriculum will be monitored through school data. This data will be collected from the PAST, FastBridge, and progress report assessments and will be added to the tables in Figure 1-4. This data will be compared historically and within the school year. If the program is successful, it is assumed there will be an increase in student proficiency in the PAST, state assessments, and state standards. Staff will also be looking for an increase of proficiency compared to previous years. Reflections from staff will also be collected and used to modify or revise the curriculum plan for upcoming school years.

**Barriers and Challenges**

A common barrier in every school is the demand for time and learning a new curriculum. School leaders and staff will need to find the time needed to successfully understand and implement the curriculum appropriately. They will also need to ensure time for discussions about the curriculum and address any questions the staff may have. Another challenge teachers may face is the random observations. This may cause stress for some teachers as they become nervous or anxious while being observed and not knowing when the observation may come. This can be overcome through reassuring the teachers it is not an evaluation of them, but an evaluation of the curriculum and implementation. Lastly, another barrier or challenge that may be seen is how to successfully implement the curriculum while there are a variety of factors out of our control. For example; attendance, behaviors, pull out times for special education, etc. Although these are all barriers and challenges that may arise, the staff and leaders will work together towards solutions if these challenges arise.

## Conclusion

In conclusion, phonemic and phonological awareness skills are seen to be the foundation to literacy and future reading success (Kenner, et al. 2017). The research prevailed themes relating phonemic awareness skills to reading abilities and the lack of teacher knowledge and efficacy when it terms of basic-language constructs (Martinussen, et al., 2015; Stark, et al.,2016; Washburn, et al., 2016). The problem forms when reading instruction is taught before the foundational skills are fully developed and when there isn't sufficient teacher knowledge and a lack of a strong phonemic awareness curriculum (Siegel, 2013). This school improvement plan focuses on the impact phonemic awareness skills have on student reading abilities, the importance of teacher-knowledge, and how to use teacher interests to guide professional development opportunities. By providing teachers with professional development and students with a direct and explicit curriculum in phonemic awareness, Lambert Elementary School will begin to close the gap in reading achievement.

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