



SNAP TO READ

THE PHONEMIC AWARENESS AND READING COMPREHENSION OF THE SECOND GRADERS

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First received: October 14, 2023

Final proof received: November 3, 2023

Abstract:

English literacy has been taught to students as a foreign language due to globalization. Learning English reading literacy begins at a young age and starts by learning words. Phonemic awareness aids the students in learning words in-depth and acts as the platform to identify a reading failure. The current research aims to find whether phonemic awareness and reading comprehension are related. The data for measuring phonemic awareness and reading comprehension was collected using a test and analyzed using IBM SPSS 25.0. The current study revealed that phonemic awareness is related positively to reading comprehension. Moreover, the students are revealed to understand learned words well. This research brings significance to teaching phonemes to young children to aid them in learning reading English. For future research, phonemic awareness should be paid attention to in learning reading comprehension by giving the students various English word reading exercises

Keywords: *Phonemic Awareness, Reading Comprehension, Correlation*

INTRODUCTION

Every living creature needs to communicate. Language is the medium for people to communicate (Urban, 2014). The curiosity of humans leads them to learn and read from different cultures. The only way to understand each other is by learning the language. According to McQuerrey (2017), Language is associated with profitability, productivity, team building, and client relationships in scholarly and business literature as mentioned in Angouri & Machili, (2020). Learning a global language become important in globalization, one of which is English. English's role in this era was to become a major component of globalization as the language that connects people worldwide (Gular and Smokotin, 2014).

language skills, one of which is Reading. Reading transforms recognized words into meaningful ideas (Hoover & Gough, 1990). Reading is the process of getting information out of written material (Olson & Dillner, 1982; Elleman & Oslund, 2019). Trabasso, Secco, & Van Den Broek (1984), explain that the information that was extracted from the text was then processed in the brain as new knowledge and was called comprehension. Reading comprehension helps the reader picture the event in the text as mentioned in McNamara (2007). Freire (1983) states that reading proficiency is essential because it was a part of a wider process of development and growth in humans based on comprehension of one's own experience and the social world.

The government of Indonesia pushes the Gerakan Literasi Nasional. It is a movement to strengthen Indonesian literacy skills. Buku saku kemendikbud emphasizes that literacy must be used as the media to support learning achievement. Learning literacy then became an obligation to Indonesian students. Among the literacy that the government pushes is reading literacy. The obligation of learning reading literacy was not limited to the Indonesian language only, but also other languages such as English, Germany, and others.

English literacy is part of the Indonesian national university entrance test (SNBT or SBMPTN), thus English is important to be taught and learned even in the earliest stage of literacy learning.

Babies learn how to read even before they recognize letters. According to Gooch and Lambirth (2016), Babies imitate the movement of an adult that nurses them, listening, and watching their environment to learn reading. Phonemic awareness is the ability to identify and manipulate individual sounds of a word (Phillips & Torgesen, 2006; Scott, 2009). In learning about phonemes, students repeating listen to the sound of the word and identify the meaning of it. It results in them remembering the form of the word and its meaning. According to the report by the national reading panel in 2000, phonemic awareness training boosts reading comprehension as well as word reading. WadeWoolley (2016) states that Phonics and prosodic awareness independently predicted short word reading, and both phonological factors independently influenced multisyllabic word reading. Kenner, Terry, Friebling, & Namy (2017) says that phonological awareness provides a platform for potentially identifying children at risk for reading failure earlier in ontogeny than current assessment tools allow.

Phonemic awareness is one of the components of reading. Phonemic awareness falls under the umbrella of phonological awareness (Bottari, 2020). Phonemic awareness is the ability to understand and manipulate words at the phoneme or individual sound level. (Phillips & Torgesen, 2006; Scott, 2009). According to Bray (2007), phonemic awareness is an important skill to develop strong readers. Nurturing literacy development can be done in several activities. Jurenka (2005) suggests nurturing literacy through weaving together children's picture books read aloud, phonemic awareness activities, experience-based chart stories, letter identification activities, play with language, and poetry. Phonemic awareness is usually elaborated in early literacy.

It starts from kindergarten and the latest the first grade, phonemic awareness training in the first-grade supports grade-level reading, and learning phonemic awareness skills can occur within a short time period (Reading & Deuren, 2007).

The relationship between phonemic awareness and reading comprehension has been studied throughout the years. Listyarini, Lintangari, & Emaliana (2022) found that after being able to manipulate phonemes, students at the university level can eventually do word recognition and processing, which become components of comprehending text. Monesa (2022) found that reading comprehension has a high correlation influence on Phonemic Awareness in fifth-semester students in a university. Edwards and Taub (2016) found that blending has a stronger relationship with reading comprehension than segmenting on first until fourth graders. Yoshikawa and Yamashita (2014) found that phonemic awareness serves as a basis for L2-English reading among an L1-Japanese population. And the last one is Firman, Haerazi, & Dehghani (2021) found that lower reading achievement at the secondary level is affected by many factors, and among them is low phonemic awareness.

In comparison, there are differences in some areas of this research. Previous research revealed that phonemic awareness has a connection to reading comprehension but mostly goes around the advanced level. The urgency to find the connection between phonemic awareness and reading skills, especially comprehension in early literacy then emerged. This research uses one class in the second grade, which is closer in age to grade one and falls into the category of early literacy. This research provides new insights into teaching reading from the base which is recognizing phonemes. So that teachers can integrate learning phonemes into the lesson, especially at the early literacy or elementary level that is in tune with Gerakan Literasi Nasional.

Thus, the research question can be formulated as follows: (1)

How is the phonemic awareness of the second graders in MI PSM Tanen? (2) How is the reading comprehension of the second graders in MI PSM Tanen? and (3) Is there any correlation between phonemic awareness and reading comprehension in the second graders of MI PSM Tanen?

METHOD

Research design

The design of this research is correlational research. The correlational design uses correlational statistics to describe and measure the degree of a relationship between two or more variables (Creswell, 2014). The current research has two variables, i.e. variable phonemic awareness (x1) and variable reading comprehension (x2)

Research procedure

In doing the research, the researcher used some procedures. The first step for this research was planning the research. The correlation between phonemic awareness and reading comprehension in second graders then became the topic for this research. The researcher then began to arrange the research plan for the research. The first step in arranging the research was to find a suitable school. Then the researcher obtains some information regarding the sample in the school. The researcher talks with the teacher about the problem faced by students in reading English. The information was used to decide the instruments to obtain the data. After the instrument was decided then it was tested. Following the previous step was collecting and analyzing the data.

Research population and sample

The research was conducted in the lower grade of Madrasah Ibtidaiyah Pesantren Sabilil Muttaqien Tanen (MI PSM Tanen). Madrasah Ibtidaiyah is an Islamic elementary school in the Indonesian education system. MI PSM Tanen is a private elementary school

under the Pesantren Sabilil Muttaqien Foundation. It was located in Kandung street, Tanen, Rejotangan, Tulugagung Regency. MI PSM Tanen students receive English lessons as part of their curriculum. All of the students in MI PSM Tanen receive English language lessons. They were given English textbooks and workbooks for practicing their English skills. They learn English once a week and the duration was 1 hour per meeting.

The lower grades population of MI PSM Tanen has 60 students. The student used in this research was from the second grade. The first grade has 23 students, the second grade has 22 students, and the third grade has 15 students. The research uses one class which is class 2 and has 22 students. The sample for this research was selected using purposive sampling. Purposive sampling is the best to use in-depth focusing on relatively small samples and its main goal was to find the most suitable individual or community based on some criteria to answer the research question (Nikolopoulou, 2023). The students were chosen based on the suggestion of the teacher with the criteria of having received an English reading lesson and still in the early stage of learning English literacy. The second graders are at the level of early reading, but they have experience in identifying letters, syllables, words, and the combination of them longer than students of grade 1 who are still in the stage of identifying and combining letters. Thus, they have more experience with phonemes.

Research Instruments

In this research, the researcher uses two instruments to obtain the data. They are a phonemic awareness test and a reading comprehension test.

Phonemic Awareness Test

The test was adopted from Dr. Michael Heggerty's curriculum and created by the company named literacy resources LLC. The skills

assessed also align with the Phonological Awareness Standards of the Common Core State Standards for 1st Grade. This test aims to find how far the students recognize phonemes. The content for the test was taken from the assessment archive on the Haggerty website. This test measured nine skills. The test consists of 45 questions in total. The researcher explained how to do this test before the students get tested. The test is an oral test. Students are required to answer the question orally and individually. The demonstration for the pronunciation of the words in this test was done by the researcher.

This Heggerty phonemic awareness test has nine skills to be measured and the scoring for the test follows the criteria from the Heggerty program. The criteria are mentioned below. The full mark on this test is 45.

Table 1 Blueprint of the Phonemic Awareness Test

Research Question	Measured skill	Segments	Number on test
Phonemic awareness level portrays the ability of the students to manipulate words on individual sounds.	Rhyme Production	1	1-5
	Onset Fluency	2	6-10
	Blending Phonemes	3	11-15
	Isolating Final Sounds	4	16-20
	Segmenting Words into Phonemes	5	21-25
	Isolating Medial Sounds	6	26-30
	Adding Initial Phonemes	7	31-35
	Deleting Initial Phonemes	8	36-40
	Substituting Initial Phonemes	9	41-45

Each of the questions is worth one mark. After the score was obtained, it was then interpreted using the table of interpretation from the Heggerty program to determine the students' phonemic awareness level. This test classifies student's phonemic awareness level into three levels as written below.

Table 2 The Interpretation of Result for Heggerty Phonemic Awareness Test

Phonemic Awareness Skill	Beginning	Developing	Proficient
Rhyme Production	0 - 1 correct	2-3 correct	4 - 5 correct
Onset Fluency	0 - 1 correct	2-3 correct	4 - 5 correct
Blending Phonemes	0 - 1 correct	2-3 correct	4 - 5 correct
Isolating Final Sounds	0 - 1 correct	2-3 correct	4 - 5 correct
Segmenting Words into Phonemes			
Isolating Medial Sounds	0 - 1 correct	2-3 correct	4 - 5 correct
Adding Initial Phonemes	0 - 1 correct	2-3 correct	4 - 5 correct
Deleting Initial Phonemes	0 - 1 correct	2-3 correct	4 - 5 correct
Substituting Initial Phonemes	0 - 1 correct	2-3 correct	4 - 5 correct

Reading Comprehension Test

This test was adopted from the International Certificate Young Learners named Pearson Test of English for Young Learners (PTE YL) "Firstword" level by Pearson Education Ltd. Firstword level PTE YL test consists of 40 written items which was covering listening, reading, and writing skills which worth two marks. It also contains at least two items of questions and answers in speaking that are worth 10 marks

and 1 or 3 questions of short talk which are worth 10 marks. Firstword level PTE YL test four English skills, among them the researcher uses reading skills for item number 1 until 18 and reading and writing skills for item number 19 until number 25.

This reading comprehension test aims to find how far the students understand when reading a text and recognizing the vocabulary. The content for the test was taken from the archive of the PTE YL test in 2011. This is a paper-and-pencil test of reading proficiencies and is designed for young students who have acquired some communicative skills. The Reading test has 25 questions. The total testing time for tests is 40 minutes. Each of the questions is worth two marks and the full mark is 50.

Table 3 PTE YL Firstword Reading Test Measured Skills

Research Question	Task Types	Test Objectives	What the test taker should do	Number of questions
Reading comprehension portrays how well the second graders in MI PSM Tanen understand literal comprehension and inferential comprehension of a text.	Match question to answer	To assess: - understanding of the structural relationship between questions and responses - the ability to recognize appropriate responses to questions in a simple dialogue	Read five questions and match them to the most appropriate answer options	5
	Match utterance to picture	To assess the ability to recognize simple functional use of language in social situations familiar to young learners	Match five short written utterances to the pictures which illustrate their meaning	5

	Match the word to picture	To assess the ability to recognize commonly used nouns	Match eight words to pictures that represent their meaning	8
	Gap-fill	To assess the ability to understand a short text	Read a short text containing seven gaps and choose the missing word for each from the choices given	7

Data Collection

The data collection method is by using in-class tests. The researcher shared the reading comprehension test at the first meeting and explained how to do the test. The first test was conducted on 6 April 2023. The students had 40 minutes to finish the task. The next meeting was conducted on 15 April 2023. The students were tested on their phonemic awareness levels one by one. Each of the students was given 4 minutes to answer all of the questions.

Data analysis

After the data was obtained through testing, the data were analyzed. The score from the reading comprehension test was analyzed first and followed by analyzing the phonemic awareness after. The next step was finding the relationship between both variables using the Pearson Product Moment/Spearman Correlation formula in IBM SPSS 25.0. The last step in analyzing data was testing the hypothesis. The hypothesis for this research is:

H₀: there is no correlation between students' phonemic awareness and reading comprehension ability.

H_a: there is a correlation between students' phonemic awareness and reading comprehension ability.

If calculated Sig (2-tailed) >0.05: The H₀ is accepted, and the H_a is rejected.

If calculated Sig (2-tailed) <0.05: The H₀ is rejected, and the H_a is accepted

FINDINGS AND DISCUSSION

In this chapter, the results of the study are presented and discussed with reference to the aim of the study, which was to determine the correlation between phonemic awareness and the reading comprehension of second graders. The two sub-aims of this test were to find students' phonemic awareness level and students' reading comprehension skills.

The Phonemic Awareness of Students

The phonemic awareness test measures nine phonemic awareness skills. They are Rhyme Production, Onset Fluency, Blending Phonemes, Isolating Final Sounds, Segmenting Words into Phonemes, Isolating Medial Sounds, Adding Initial Phonemes, Deleting Initial Phonemes, Substituting Initial Phonemes. The phonemic awareness test results in 91% of the students being proficient at the individual level. Only 9% of the students are at the Beginning level.

The first section/rhyme production in the table (appendix 3) shows that students are still at the beginning level and only one student in the developing level. Onset fluency skill has two students each in the beginning and developing level, the rest are proficient. Blending phoneme skill has two students in the beginning and one student in the developing level. Isolating final sounds skills receive two beginning and five developing levels. Segmenting words into phonemes skill has two beginning students and one developing student. Isolating media sound skills have one beginning level and three developing level students. Adding initial phoneme skill has one beginning and three developing level students. The deleting initial phoneme has four students each in the beginning and developing levels. The Substituting Initial Phonemes section receives the most Developing level which is

seven students and three beginning students.

This means that the students are not able to show the words that are rhyming. The problem with the majority of the students is they are not familiar with some of the words in the test. So, they could not think of the word with the same rhyme. It can be concluded that the second graders of MI PSM Tanen have a high phonemic awareness level.

The second graders of MI PSM Tanen students learn multiple languages including their native language which is Bahasa Indonesia. Bahasa Indonesia has some different phonemes than English. According to Setyadi (2019), there are seven vocal phonemes in Indonesia. They are /a, i, u, ê, è, é, o/. Andi-Pallawa and Alam (2013) state several differences. The first difference is / æ, ʌ, ɜ, ɔ, θ, ð / sounds exist in English but not in Indonesia. The second is sounds that exist in English and Bahasa Indonesia but they have different phonetic features, such as: 1) Phonetic features: / b, d, g, z, s, ʃ, dʒ / do not exist in the final positions of the word of Bahasa Indonesia, 2) Phonemic features: / p, t, k / are never aspirated in Indonesian words wherever they appear, 3) Phonemic feature: / r / is never pronounced clearly in English but in Bahasa Indonesia / r / is always articulated clearly wherever it appears in the words. The third is the spelling of English words. For example: / s / is sometimes pronounced as / z / in English, and / a / is also sometimes pronounced as / æ, ə, e /.

The Reading Comprehension of Students

Reading comprehension test students' understanding of a short text. The students demonstrated that they were able to read and recognize simple words and phrases. The second graders of MI PSM Tanen were familiar with shorter English texts. In doing the test, the students did not use a dictionary and relied on their memory. The result of the test was, 91% of the students exceeded the half-point mark, and only 9% did not pass the half-point mark. Meanwhile, 18% of the students pass 75% of the maximum score which is 37.5. It can be

concluded that the majority of the second graders of MI PSM Tanen were able to finish half of the test.

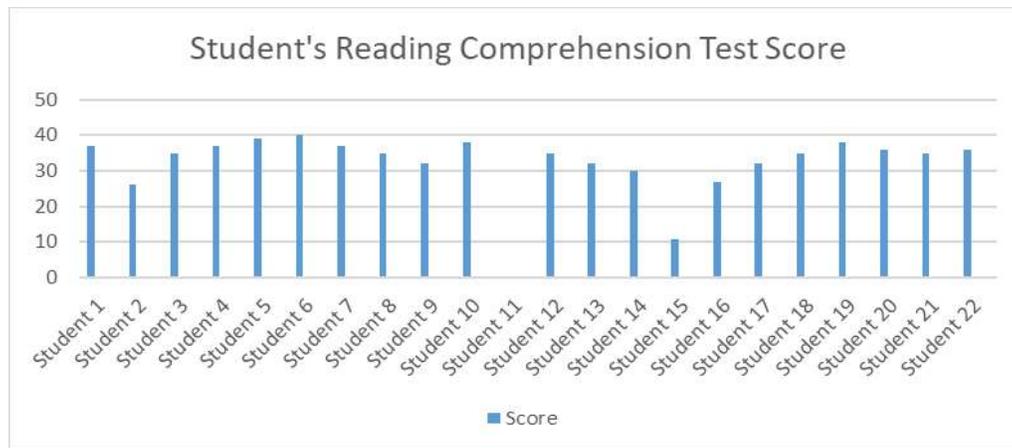


Figure 1 Student's Individual Reading Comprehension Test Score

According to the chart above, the highest score for the reading comprehension test is 40 and is achieved by student 6. The second highest score of 39 was achieved by student 5. The lowest score is 0 and is achieved by student 11. The second lowest score is 11 and was achieved by student 15. The mean of the test is 31.95, and the most achieved score by the students is 35. Below is the chart of the section mean score.

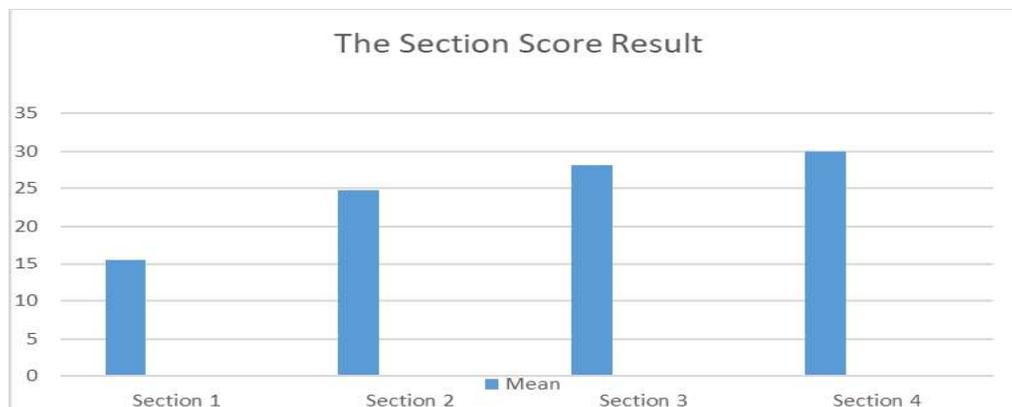


Figure 2 Section Mean Score Result

The test is sectioned into four sections. Sections 1 require the

students to match the question to its answer. The second section requires matching sentences and pictures. Section 3 matches words with pictures; in the last section, the students must choose the appropriate words to fill in the text. The students have a good performance in the third and fourth sections. The students achieve the lowest score in the first score. For the second section, the students have moderate performance. The data showed that the students are having a problem reading longer sentences.

The Correlation Between Phonemic Awareness and Reading Comprehension

The data of the test result can be seen in the table below. The descriptive statistics below contain the minimum score result, the maximum score result, the mean of the test, and the standard deviation of the test

Table 4 Descriptive Statistic of the Test Result

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
Phonemic Awareness	22	0	44	29.00	10.614
Reading Comprehension	22	0	40	31.95	9.429
Valid N (listwise)	22				

The table shows the descriptive statistics of this research. There are 22 students participating in this research. The mean for the phonemic awareness test is 29 with the highest score achieved being 44 and the lowest being 0. The mean for the reading comprehension test is 31.95 with the highest score achieved being 40 and the lowest being 0.

The next step is a normality test. Sample size contributes to the sampling result. according to Krithikadatta (2014), the smaller sample size often has non-normal data distribution. The distribution just starts

to conform to the bell shape in the sample of 25.

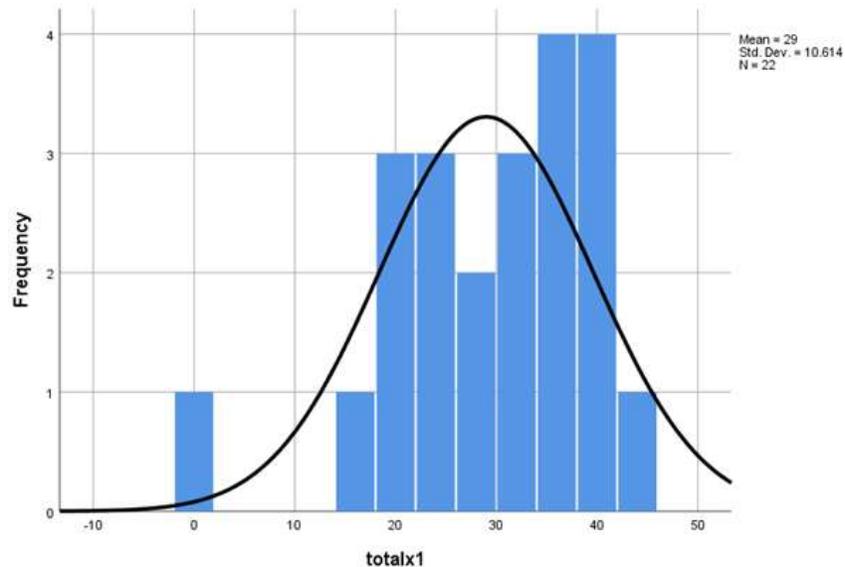


Figure 3 Phonemic Awareness Normality Test Result

The histogram above showed no bell shape as a result of a smaller sample. This research sample size is 22, thus the data distribution is not normal and has to use the non-parametric test to find the correlation.

After the normality test, the following step is testing the correlation. Because the data is not distributed normally, the Spearman rho is applied. The hypothesis for Spearman rho correlation are
H0: there is no correlation between students' phonemic awareness and reading comprehension ability.

Ha: there is a correlation between students' phonemic awareness and reading comprehension ability.

The significance level is $\alpha=0.05$.

H0 was rejected if the p value $< \alpha$.

Table 5 IBM SPSS Result for Spearman rho test

Correlations

		Phonemic Awareness	Reading Comprehension
Phonemic Awareness	Spearman rho Correlation	1.000	.509*
	Sig. (2-tailed)	.	.016
	N	22	22
Reading Comprehension	Spearman rho Correlation	.509*	1.000
	Sig. (2-tailed)	.016	.
	N	22	22

From the SPSS output table above, the significance value is 0.016 which is lesser than 0.05 ($0.016 < 0.05$). Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted. It can be concluded that there is a significant relationship between phonemic awareness level and reading comprehension ability.

Table 6 The Criteria for Correlation Coefficient Interpretation

Absolute Magnitude of the Observed Correlation Coefficient	Interpretation
0.00–0.10	Negligible correlation
0.10–0.39	Weak correlation
0.40–0.69	Moderate correlation
0.70–0.89	Strong correlation
0.90–1.00	Very strong correlation

According to the table above (Schober, Boer, & Schwarte, 2018), a correlation coefficient of 0.509 is considered a moderate correlation. Moreover, a correlation of 1,000 is considered a positive correlation between the variables. Thus, it can be concluded that the result of this research is phonemic awareness and reading comprehension are related to each other and was positively related.

Discussion

As shown, the result of students' phonemic awareness and reading comprehension skills is significantly and positively related. The current research aimed to find if there is a relationship between phonemic awareness and reading comprehension and provides a new perspective to teach phonemes to EFL young learners in Indonesian elementary schools. Also, to find if there is something similar and different between current research and past research.

This research setting is in an elementary school and focused on early reading literacy development. Thus, it was a different setting from the research by Monesa (2022) and Liştyarini, Lintangari, & Emaliana (2022). This research uses elementary school as the focus of research because students are still learning to read. Teaching phonemic awareness is better done at a younger age as it dispels later challenges (Brink, 2022). The problem with using lower class in elementary school is their reading skill. In the second grade of MI PSM Tanen, there are two students who face difficulty in doing the reading comprehension test because they could not solve 20% of the questions in the test. Thus, learning phonemic awareness must be supervised thoroughly. The problem faced by students did not get a problem with their other skills. The students are all able to recognize words that they have seen or listened to before. The current research found that students are able to recognize phonemes in English words and understand the meaning of the word in a sentence. When they were answering phonemic awareness test questions and were asked about the meaning of the word from the reading comprehension test, they were able to point out its meaning.

The current research did not specify which phonemic awareness aspects are related to reading, but the researcher assumes it covers all of the aspects. Correlation research by Edwards and Taub (2016) was done in elementary schools. It found that blending has a stronger relationship with reading comprehension than segmenting. According

to Bursuck (2014), Blending is the ability to say the spoken word when its individual phonemes are said slowly. Meanwhile, Segmenting is the ability to break spoken words into their individual phonemes. The ability to do blending and segmenting in phonemic awareness is critical (National Reading Panel, 2000). The result of phonemic awareness in this current research showed that students were able to do blending and segmenting in phonemic awareness which is critical based on the statement of the National Reading Panel.

Based on the result of this research. Phonemic awareness is related to reading comprehension. According to the article by Read Naturally (2019), reading comprehension and phonemic awareness are part of the language components of reading. It was interesting to compare it with research by Yoshikawa and Yamashita (2014). It said that phonemic awareness served as the basis for L-2 reading for L-1 Japanese. Phonemic awareness is not related directly to the reading comprehension of non-alphabetic language users. The research stated that decoding plays a part in non-alphabetic language. Although this research did not focus on one or two aspects of phonemic awareness, it can be seen in the table that blending has the highest score out of 9 aspects. So, it can be concluded that blending plays a part in younger alphabetical EFL learners. Then, it can be concluded that phonemic awareness plays a different role in reading based on the person's native language.

English in Indonesia was taught from a young age but not as students' main language. One of the skills that the students must acquire is reading skills. Firman, Haerazi, & Dehghani (2021) mentioned that students in secondary school have lower reading achievement because they face reading difficulties, one of which is low phonemic awareness. Phonemic awareness acts as the medium for predicting how well the students will read later (National Reading Panel, 2000). It was better to identify children with reading disabilities sooner (Weir, 2011). Thus,

the benefit of learning phonemic awareness in early learning reading was to help identify reading skills that the students will acquire and achieve better reading achievement in the next stage.

Current research discovers that phonemic awareness is significantly and positively related to reading comprehension. Phonemic awareness education improved both word reading and pseudoword reading, implying that it assists children in decoding novel words as well as remembering how to read known words (National Reading Panel). Seidenberg (2017) claimed that the use of phonological pathways is essential for skilled reading. For children, it requires instruction, hence phonics. Some methods are developed to fulfill the instructional phonemes learning in reading. According to Tiffany P. Horgan in the article by Massachusetts Department of Elementary and Secondary Education (2023) learning reading for kids requires explicit instructions, therefore teachers must be clear, unambiguous, and direct. Some of the lessons mentioned were incorporating pictures and words that are broken into their phonemes together. The reading test of the current research also incorporates pictures to test the students. Hence it was also an explicit instruction test that is appropriate for children. In the future, the teacher in MI PSM Tanen could consider using pictures and words in learning reading and phonemes.

CONCLUSION

Teaching phonemic awareness and reading comprehension should be started at a young age. Phonemic awareness serves as the base for word reading. Phonemic awareness helps students to remember word spelling in early learning reading. Using phonemic awareness teaching reading must get easier in the later stage because it predicts how well the students will read later. The problem right now is they are not taught or focused on the early learning stage. Blending as part of phonemic awareness plays a critical role. This current research

found that MI PSM Tanen students are able to do the blending, which means they are able to do the critical aspect. Phonemic awareness also affected reading achievement. Low phonemic awareness plays a part in lower reading achievement. Thus, learning phonemic awareness earlier along with learning reading have positive effects on students' skills. In the future, EFL teachers must consider incorporating learning phonemes into their learning activities.

This research lacks a sample size thus, it does not represent all of the population in all of the elementary school settings. But this research is important to unveil new light on teaching phonemes in reading and give an explanation for it. It would be best if future research utilized more elementary students since this research is using a small number of students. In learning reading for early literacy students, it would be better to integrate more in-depth phoneme learning to strengthen students' word-mastering skills.

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