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**Analyzing the Student's Phonological Awareness  
and its Relation to the Reading Skill in EFL Classroom**

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## ANALYZING THE STUDENT'S PHONOLOGICAL AWARENESS AND ITS RELATION TO THE READING SKILL IN EFL CLASSROOM

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### Abstract

Phonological awareness has been claimed as one of the significant factors in learning to read. This paper reported our research on students' phonological awareness in EFL classrooms. We wanted to examine whether the phonological awareness tasks correlate with reading accuracy. Firstly, we analyzed their phonological awareness in the tasks of identification, substitution, addition, and deletion in English phonemes and syllables. Then, we discussed the relationship between phonological awareness and reading skills. We observed the students (N=143) of the even semesters (II, IV, VI, and VIII) at the English Education Department (Academic Year 2021/2022), Universitas Bandar Lampung, Indonesia. From the complete task of knowing students' phonological awareness that has been carried out, there was an increase in the average score from Semester II to Semester VIII students. The highest mean score was found in the student's test scores of Semester VIII (91.2; SD 6.3) and the lowest for Semester II students (62.5; SD 11.4). To test whether the phonological awareness tasks correlated with reading accuracy, the Pearson product-moment correlation coefficient ( $r$ ) was calculated, and the results showed that the reading accuracy had a positive correlation either for the phoneme ( $r = 0.472$ ) and syllable ( $r = 0.534$ ) tasks and the correlation was significant ( $p < .01$ ).

**Keywords:** Phonology; Phonological Awareness; EFL; Reading Skill.



## **A. Introduction**

In Indonesia, different evaluation results reveal problems in mastering English as a foreign language (Mahmud, 2014; Mappiasse & Sihes, 2014; Setiyadi, Mahpul, & Wicaksono, 2019), one of which is reading skills. The above consideration demonstrates the importance of knowing and establishing recommendations for teaching reading in EFL classrooms and overcoming difficulties in its acquisition and development. One contribution to consider is the perspective in which reading acquisition and development are associated with developing particular skills, such as phonological awareness (Defior & Tudela, 1994; Susanto, 2016). The acquisition of these abilities may depend, to a large extent, on the type of learning writing system.

Many studies on the relationship between phonological awareness and reading have been carried out starting from the view that learning to read can bring a large amount of phonological awareness (Kavanagh & Mattingly, 1972; Morais, Bertelson, Cary, & Alegria, 1986; Müller & Brady, 2001). Further, phonological awareness has been claimed as one of the significant factors in learning to read (Schaars et al., 2019). Just as learning to read requires the matching of sound and graphic units, students must develop the ability to analyze the phonological structure of their language in order to have good reading development. In many studies of learning to read and its difficulties, the fundamental role of phonological procedures in learning to read is revealed (Lieberman & Shankweiler, 1985; Treiman, 1991). The procedures enable the students to develop their ability to recognize written words.

Many highlight the importance of phonological awareness for unimpeded learning to read (Isozaki, 2014). However, it must be remembered that phonological awareness is available to competent readers, which they use when they learn new words. Phonological awareness modifies their language knowledge, which mainly leads to the complexity of the phonological representations they use (Chitoran & Cohn, 2009). The relationship between phonological awareness and reading shows a substantial relationship between phonological awareness and reading (Bradley & Bryant, 1991; De Jong & Van

der Leij, 1999). Phonemic and syllabic manipulation can be used for the assessments of phonological awareness. Phonological awareness can predict reading ability well and marks the difference between good and poor readers.

According to Castles and Coltheart (2004), although there is a relationship between phonological awareness and reading, the direction of this relationship is being questioned. The claim that phonological awareness is a necessary skill for learning to read is not inconsistent with the possibility that learning to read can facilitate the development of such knowledge. Evidence suggests that reading skills can help improve a person's phonological awareness. Phonological awareness refers to an individual's ability to understand that words are made up of distinct sounds or phonemes and can be separated into smaller parts (Vloedgraven & Verhoeven, 2009; Wagner et al., 1987). This skill is essential in reading because it helps individuals to understand the relationship between letters and related sounds in a given language.

Learning to read involves recognizing letters and related sounds and often involves reading the sounds together, reading words over and over again, and breaking words into smaller parts. Individuals can increase their phonological awareness and gain better reading skills by doing these activities regularly. In order to learn to read, the individual must learn to distinguish between different letters and understand the pronunciations of letters in different words. This requires the ability to discriminate and manipulate the sounds in language, which are vital skills also related to phonological awareness.

Thus, learning to read and developing phonological awareness are interrelated and mutually reinforcing. Although phonological awareness is necessary for learning to read, learning to read can also help increase one's phonological awareness. For Hulme et al. (2005), there could be several pathways to developing phonological awareness: one would be learning to read and write in an alphabetic writing system, and the other, teaching phonological skills in learning to read. There is a relationship between phonological knowledge and reading learning, and both variables are bidirectionally related (Wise et al., 2008).



Phonological awareness can play a role in the development of reading. Our study analyzes phonological awareness in different tasks of identification, substitution, addition, and deletion in English phonemes and syllables. Then, we discuss the relationship between phonological awareness and reading skills. We compare the results in the groups of participants to observe their scores in evaluating their phonological awareness and reading skill. We want to examine whether a phonological awareness task correlated with students' reading accuracy. Hopefully, the research finding can motivate further studies exploring phonological awareness in EFL methods. This may include using it to teach students with disabilities (Susanto & Nanda, 2018). Furthermore, this may also include leveraging phonological awareness in EFL classrooms to gain more knowledge and student learning (Al-Tamimi & Rabab'Ah, 2007; Nanda & Susanto, 2021).

## **B. Method**

In this study, we involved participants (N=143) who were Indonesian students in an even semester (II: 28 students; IV: 50 students, VI: 31 students, and VIII: 34 students) in the Department of English Education (Academic Year 2021/2022), University of Bandar Lampung, Indonesia. They comprised 50 male students (35%) and 93 female students (65%). The age of the students ranged from 18 years to 21 years.

All participants in the study are native Indonesian speakers, and they study English as a foreign language. For the phonological awareness assessment, the participants were evaluated with the test for their phonological knowledge of English phonemes and syllables. In the test, they were given four tasks: identification, substitution, addition, and deletion. In the identification task, the students were asked to identify the phonemes or syllables of the selected words. In the substitution task, they were asked to replace the incorrect phonemes or syllables with the correct ones for the selected words. In the addition task, they were asked to add the missing phonemes or syllables to the selected words. In the omission task, they were asked to delete the incorrect phonemes or syllables from the selected words.



The test has 40 questions about phonemes and the other 40 about syllables. Each task has ten questions for both phonemes and syllables. The maximum score after completing the test is 80. In the present study, the student's reading accuracy is observed as one of their reading skills. The students were asked to read out loud two English narrative texts (Text 1 and Text 2). To measure their reading accuracy, the number of words read correctly by the students was divided by the total number of both texts and then multiplied by 100%. SPSS (Statistical Package for Social Sciences) (Ver. 21) was used to examine the Pearson product-moment correlation coefficient ( $r$ ) to find out whether the phonological awareness tasks correlate with reading accuracy (Pallant, 2020).

## **C. Result and Discussion**

### **1. Result**

Figure 1 shows the mean scores of the test results. From the total of the phonological awareness tasks, it is observed that there is an increase in mean scores from the students in Semester II to those in Semester VIII. The scores are higher in Semester VIII (mean score = 74), followed by Semester VI (mean score = 63), Semester IV (mean score = 53), and, lastly, Semester II (mean score = 40). For the students in Semester VIII, the highest mean score is in the deletion task (mean score = 20), and the lowest is in the identification task (mean score = 17).

For the students in Semester VI, the highest mean score is in the addition task (mean score = 17), and the lowest is in both identification and deletion tasks (mean score = 15). Meanwhile, for the students in Semester IV, the highest mean score is in both identification and deletion tasks (mean score = 15), and the lowest is in the substitution task (mean score = 12). Moreover, for the students in Semester II, the highest mean score is in both substitution and deletion tasks (mean score = 11), and the lowest is in identification and addition tasks (mean score = 9).

However, the mean scores in the tasks related to the syllables show no increase in the syllable deletion task (mean score = 8) and the syllable identification task (mean score = 7) from the students in Semester IV to those



in Semester VI. From the students in Semester VI to those in Semester VIII, there is also no increase in the syllable addition task (mean score = 9), and from the students in Semester II to those in Semester IV; there is no increase in the syllable substitution task (mean score = 6) either. While the mean scores on the tasks related to the phonemes show an increase except for the phoneme identification task (mean value = 8), there is no increase from Semester VI students to Semester VIII ones.

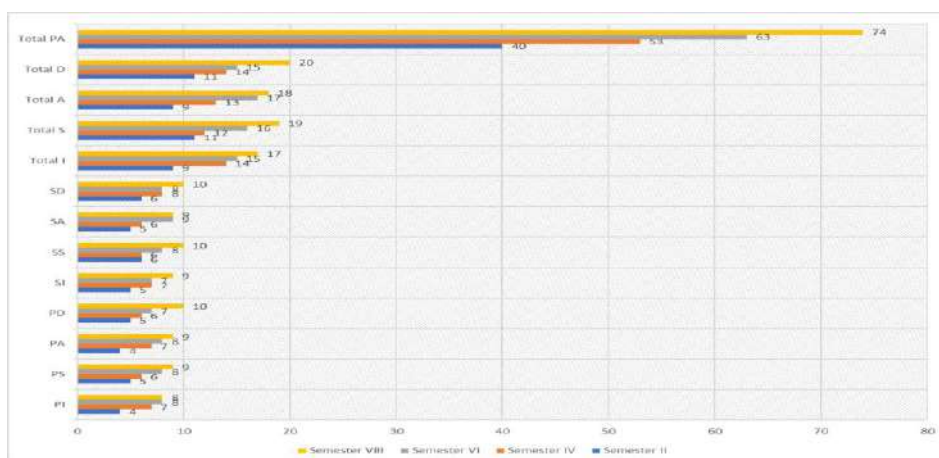


Figure 1. The Mean Scores of the Test Results. (Total PA: Total of Phonological Awareness Tasks; Total D: Total of Deletion Tasks; Total A: Total of Addition Tasks; Total S: Total of Substitution Tasks; Total I: Total of Identification Tasks; SD: Syllable Deletion Tasks; SA: Syllable Addition Tasks; SS: Syllable Substitution Tasks; SI: Syllable Identification Tasks; PD: Phoneme Deletion Tasks; PA: Phoneme Addition Tasks; PS: Phoneme Substitution Tasks; PI: Phoneme Identification Tasks)

Table 1 shows the observation of the percentage of the mean scores in the phonological awareness tasks with the following formula (1):

$$\% \text{ Mean Score} = \frac{\text{Total Mean Scores}}{\text{Total Questions}} \times 100 \%$$

As the example, to get the percentage of the mean scores in the phoneme tasks for the Semester II students, the total of the mean scores of all phoneme tasks (including identification, substitution, addition, and deletion tasks) is divided by the total questions related to the phoneme, i.e., 40 questions. Then, the result is multiplied by 100, and we get 45. Moreover, to get





the percentage of the mean scores in the identification tasks for the Semester II students, the mean scores of all identification tasks related to phonemes and syllables are divided by the total questions in identification tasks, i.e., 20 questions. The result is multiplied by 100, and we get 45.

*Table 1. The percentage of the mean scores in the phonological awareness tasks*

	<b>II (%)</b>	<b>IV (%)</b>	<b>VI (%)</b>	<b>VIII (%)</b>
Phoneme Tasks	45	65	77,5	90
Syllable Tasks	55	67,5	80	95
Identification Tasks	45	70	75	85
Substitution Tasks	55	60	80	95
Addition Tasks	45	65	85	90
Deletion Tasks	55	70	75	100

The percentage of the mean scores in the phonological awareness shows that the mean scores in the tasks related to the syllables (55%; 67,5%; 80%; 95%) are always higher than those in the tasks related to the phonemes (45%; 65%; 77,5%; 90%) for all students in Semester II, IV, VI and VIII respectively. It may indicate that the syllable questions are more accessible than the phoneme ones for the students. For the students of Semester II, both substitution and deletion tasks (55%) have a higher percentage of the mean scores than identification and addition tasks (45%). For the students of Semester IV, the percentage of the mean scores in identification and deletion tasks (70%) is higher than that of the mean scores in the addition task (65%) and substitution task (60%). For Semester VI and VIII students, the highest percentage of the mean scores is in the addition task (85%) and deletion task (100%), respectively.

The gaps of the adjacent semester students can be observed in Figure 2, showing the different percentages of the mean scores in the test results for all participants. It is observed that there are wide gaps in test results of identification tasks (phoneme and syllable) between the Semester II (45%) and IV students (70%); deletion tasks between the Semester VI (75%) and VIII students (100%). Moreover, narrow gaps are found in the test results of identification tasks between the students in Semester IV (70%) and VI (75%),



substitution tasks between the students in Semester II (50%) and IV (60%), addition tasks between the students in Semester VI (85%) and VIII (90%); and deletions tasks between the students in Semester IV (70%) and VI (75%).

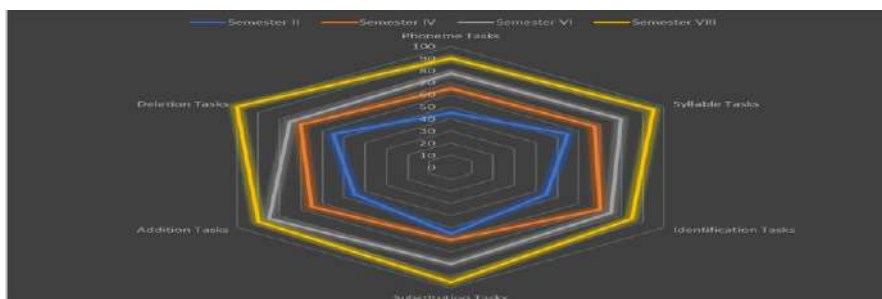


Figure 2. The Different Percentages of the Test Results (from the Mean Scores) in the Semester II, IV, VI, and VIII students

The descriptive statistics of the test scores in reading accuracy are shown in Table 2. The highest mean score is found in the student's test scores of Semester VIII (91.2; SD 6.3) and the lowest for Semester II students (62.5; SD 11.4). To test whether the phonological awareness tasks correlate with reading accuracy, the Pearson product-moment correlation coefficient ( $r$ ) was calculated, and the results are shown in Table 3. We find that the reading accuracy has a positive correlation either for the phoneme ( $r = 0.472$ ) and syllable ( $r = 0.534$ ) tasks, and the correlation is significant ( $p < .01$ ).

Table 2. The test scores of reading accuracy

	Min.	Max.	Mean	SD	N
Semester II	35	78	62.5	11.4	28
Semester IV	46	85	78.2	12.8	50
Semester VI	67	97	84.3	8.6	31
Semester VIII	74	100	91.2	6.3	34

Table 3. The correlations between phonological awareness tasks (phoneme and syllable) and reading accuracy ( $p < .01$ )

	1	2	3
Phoneme Tasks	-		
Syllable Tasks	0.346	-	
Reading Accuracy	0.472	0.534	-

## **2. Discussion**

As we found in the present study, from the complete task of knowing students' phonological awareness that has been carried out, there is an increase in the average score from Semester II to Semester VIII students. Hence, phonological awareness can appear in the development of a student in learning a foreign language. Phonological awareness is the ability to understand and manipulate the sounds of a particular language. This ability is essential in language learning because it helps students to understand the structure of sounds in the language and develop the ability to speak, listen, read, and write better. When students learn a foreign language, they often have to learn different sounds from their native language. This process requires developing a new phonological awareness of the foreign language, which can better assist students in learning the language.

In this study, for example, in English, several sounds are not present in the student's native language, namely Indonesian. In this case, students must learn to produce and distinguish these sounds from similar sounds, requiring greater phonological awareness. In addition, phonological awareness can help students learn grammar, vocabulary, and sentence structure in a foreign language. By understanding the structure of the sounds in that language, students can more easily understand words and phrases and make connections between sounds and word meanings.

In order to increase students' phonological awareness in a foreign language, there are various strategies, such as teaching complex sounds explicitly, providing pronunciation exercises, and using games and activities that emphasize recognition and manipulation of the sounds in the language. Thus, phonological awareness can play an essential role in students' development in learning a foreign language, helping them understand the structure of sounds in the language and improving their speaking, listening, reading, and writing abilities. This is not a unitary phenomenon but a continuum in which phonological awareness has different levels in the stages of foreign language learning, as the study finds the increasing mean scores from the students in Semester II to those in Semester VIII.



Phonological awareness consists of a set of skills with different levels of difficulty and different sequences of occurrence during a student's development in language learning. Phonological deficits can directly affect reading mechanisms but are unrelated to reading comprehension. Phonological awareness allows a student to detect phonemes and syllables, be aware of them, and use them to operate by pronouncing words. Therefore, phonological awareness is not a stable phenomenon, so it is necessary to develop a strategy to determine the level of complexity of the tasks about the grades at which a student learns a foreign language.

Students have a particular ability to identify phonemes and syllables. The explicit segmentation of words into phonemic and syllabic units that can be manipulated, such as by identification, substitution, addition, and deletion tasks, may result from the interaction between this knowledge and reading. Interaction with knowledge objects is required, in this case, learning to read itself, which requires this type of reflection. Reading in the alphabetic system requires the development of phonological awareness, and vice versa, and syllable awareness and reading acquisition and development can be closely related, as represented by the significant correlation between the students' reading accuracy and their phoneme and syllable-related phonological awareness task. But the acquisition of phonemic awareness requires reading instructions through appropriate phonetic methods (Dufva & Voeten, 1999; Yeung & Ganotice, 2014).

Moreover, our results show a relationship between reading and phonological awareness. The results show that reading accuracy has a positive correlation for the phoneme and syllable tasks, and the correlation is significant. This suggests that the better a person reads correctly, the better their ability to recognize and understand phonemes and syllables. The results of this study can provide important information to educators and education experts to improve reading and language skills in children and adults.

This research can also contribute to developing more effective and efficient learning methods for improving students' reading and language skills. In addition, the results of this study can be used as reference material



for researchers and academics in developing further research on the relationship between reading and language skills. From the results, we can underline that phonemic awareness can be stimulated with the support of various tasks to improve decoding skills and help them improve reading skills. The development sequence allows for assigning tasks, activities, and difficulty levels to train students. These results also allow design and integration into the curriculum, especially in increasing the students' attention to phonological awareness and reading ability.

This study presents the diversity of instruments in the number of items that compose them, types of stimuli, and tasks presented to students. However, this difference means that the same assignment can be called with the same label even though what students need differs. The test given here is to test the phonological awareness of the students. Phonological skills training improves performance on phonological awareness tasks and facilitates the student's reading development. These findings can become essential for developing reading learning programs, especially for individuals who have difficulty reading and understanding phonemes and syllables. In addition, these findings can also assist in developing more effective and efficient learning techniques in improving reading skills in individuals who have difficulties reading and understanding phonemes and syllables (Landerl & Wimmer, 2000; Treiman, Zukowski, & Richmond-Welty, 1995).

#### **D. Conclusion**

By observing the phonological awareness with the various tasks of identification, substitution, addition, and deletion in English phonemes and syllables, it is found that there is an increase in mean scores from the Semester II students to the Semester VIII ones at the English Education Department (Academic Year 2021/2022), Universitas Bandar Lampung, Indonesia. In addition, reading accuracy has a positive correlation for the phoneme and syllable tasks, and the correlation is significant. This shows that the better a person's reading ability, the better their ability to identify and understand phonemes and syllables.



In language learning, reading skills and the ability to understand phonemes and syllables are very important because they are interrelated and influence each other. Thus, the results of this research can provide vital information for educators and policymakers in developing effective language learning programs, especially in developing learning strategies that can improve students' reading and understanding of phonemes and syllables.

In addition, the results of this study can also become a basis for further research in the field of language learning, particularly in exploring the correlation between reading ability and other language skills. Since higher-semester students get more courses to improve their phonological skills, it also suggests that the phonological skills training can improve their performance on phonological awareness tasks and facilitate their reading development. In other words, phonemic awareness improves the students' decoding skills and helps them improve their reading skills. This finding can motivate further studies on exploring the phonological awareness in EFL methods for teaching impaired students or utilizing phonological awareness in EFL classrooms to get more of the student's knowledge and learning.

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