The effects of picture word inductive model (PWIM) toward student’s early reading skills of first-grade in the primary school

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Abstract. The difficulties for first-grade students in the primary school in reading, particularly unfamiliarity with the alphabet, obstruct their communication due to the inability to use the right words and proper spelling. These issues lead to low reading comprehension. The use of inappropriate learning models for early reading skills and inaccurate learning media creates difficulties for students in reading. As such, to improve their reading comprehension, the use of PWIM with the emphasis on students’ ability to think inductively is considered to be the right solution. This study aims to investigate the influence of PWIM on early reading skills in first-grade students of primary school in Indonesia. This study used a quasi-experimental model with a control group pre-test and post-test. The data analysis techniques involved the T-test and gain score test. The results of the study acknowledged significant difference in reading skills toward early reading skills. PWIM posed a significant influence on the early reading skills of primary students, compared to conventional teaching using textbooks. PWIM was proven influential to empower the inductive thinking of primary school students.

Keywords: PWIM, early reading skills, first-grade, primary school

INTRODUCTION

The learning of early reading skills in the primary school experiences may cause several problems, including the use of inaccurate early reading skills learning models which creates difficulties for students in reading, and the lack of learning media that supports the reading process so that students’ reading achievement declines. Teachers often use conventional learning methods for reading, so that they difficult to differentiate students’ reading comprehension. Based on current issues in teaching reading, improving early reading skills in primary schools can be carried out by employing a Picture Word Inductive Model (PWIM). This model empowers students’ inductive thinking. This model allows students to build generalizations. In this model, teachers present pictures and images familiar to the students.

One of the essential skills students must master from the beginning of education is reading. The reading is the main foundation for every productive human life. Based on the results of the study showed that students who read well had more opportunities to be successful in school (Grünke, 2019). By contrast, those with low reading comprehension are likely to face dropouts (Hernandez, 2011), unemployment rate (National Research Council and National Academy of Education, 2011), and reduced incomes (Snyder, De Brey, and Dillow, 2016). The ultimate goal of reading is to build meaning from written language. According to automatic word processing theory, automaticity of word recognition is indispensable for smooth reading, which in turn, is the main foundation for understanding texts (Miller, and Schwanenflugel, 2006; Paige, 2011). If individuals are required to master cognitive abilities, then they can perform reading skills to display the speed of processing from slowly spoken languages to rapidly spoken language. Otherwise, the opportunities to focus on meaning is minimal (Ardoim, Morena, Binder, and Foster, 2013; Swain, Leader-Janssen, and Conley, 2013). Thus, to understand the meaning of a text and vocabulary, students must first acquire the skills to read alphabets or words effortlessly, quickly, and accurately (Lee, and Yoon, 2017).
PWIM can be used to teach both inductive and explicit pronunciation as well as spelling since PWIM is designed to harness child’s inductive thinking skills. PWIM allows students to construct generalizations. This learning model also allows students to design principles of structural and phonetic analysis. As such, this model has the main principle that students have ability to generalize, so that they can master the language convention (Joyce, Weil, and Calhoun, 2011). PWIM is a model developed by Calhoun (1999). This model utilizes the students’ ability to think inductively. This model allows students to build generalizations. In this model, teachers present students pictures familiar to the students. Furthermore, the students can connect the words and pictures by identifying objects, so that they can develop their vocabulary for improving reading skills.

The study of Immerson School in France has found that PWIM and cooperative learning strategies have been used in classrooms in English-speaking countries for years and have been proven effective in encouraging students’ literacy and motivation towards reading beginnings. This study has revealed that what seems to relate his findings with the recent developments in research and vocabulary instruction to learning models is inductive models of pictorial words. (Feng, 2011) applies Inductive models of pictorial words in Immersion schools in France in 1st grade. He develops a vocabulary bank that is tailored to a particular theme every year. PWIM provides an opportunity to include the integration of grammar, writing, language arts, and reading lessons with non-fiction fields to learning. Vocabulary bank related to the theme is resulting from studying relevant poster images, recording words on the surrounding paper frames the image, and making or drawing lines connecting images and words (Feng, 2011). Swartzendruber (2007) found that PWIM was an effective learning strategy for classroom teachers can facilitate vocabulary acquisition. The fact that no differences were found between the ESL and non-ESL vocabulary post-test performance in the measurement of students in the experimental group can be attributed to the high level in the English language proficiency of ESL students. The use of scaffolding and explicit relationships for concepts and words seems to benefit all students, regardless of language status.

Li (2011) showed that the power of model in new English vocabulary acquisition has been acknowledged in a study involving 4th-grade students in southern Sweden. This study aimed to find out whether Swedish students’ knowledge of English vocabulary on word forms and understanding of meaning would increase in the short term through PWIM assistance. Two aspects discussed in this study include the introduction based on a general understanding and form of vocabulary (spelling and pronunciation), which can be about the meaning of words in the short term. Daoudi (2002) has revealed that the strengths of PWIM, as reported in Calhoun’s book, teaching and learning activities begin through reading and writing with the pictorial inductive model (1999) are concerned with the emphasis on phonetic components from usage sound, order language, and mechanism. Students can listen to repeatedly and correctly pronounced words and interpret graphs of picture words with direct references, helping them to add their visual to words vocabulary. The teacher can choose to emphasize almost all symbols and sounds related to the picture (introduced or mastered vocabulary). Students see images that are identified and written correctly and repeatedly. Besides, students hear the words that are spelled correctly, and participate in spelling the words correctly.

Illustrated word charts are the basic material for picture inductive model lessons and units. Graphs of picture words consist of pictures and words identified by students. This graph is used throughout the sequence of lessons and denotes the source of curriculum content. The teacher should write the words around the picture on a paper; the graph becomes a pictorial dictionary. Understanding the right language, the dictionary can be used as a group and individual. This dictionary requires the media to post, so that students can use the dictionary as their support writing, reading, and further can encourage their independence. The use of charts helps four- or five-years old children to see and comment on spelling and phonetic structures until the words become part of the students’ vocabulary as they are anchored by their representation on a graph of pictorial words. Instructional effects of PWIM include the
followings; learning to build vocabulary, learning to examine the structure of words and sentences, improving writing so students can make titles, sentences, and paragraphs, creating the understanding of reading-writing relationships, developing skills in word and structural analysis, developing interests and abilities to express by writing, increasing interest in reading nonfiction texts. The word inductive model is expected to foster learning initiatives and enable students to be aware that learning is a necessity. It is expected that students can use the Picture Word Inductive Model as a learning model, which increase student’s inductive thinking skills and learning activities that are active, innovative, and fun so that students are more motivated in thematic learning, especially in learning to early reading. Besides, this learning model can develop students’ skills to work together in learning with others in the realm of reading/writing. (Joyce, Weil, Calhoun, 2009).

**METHOD**

**Research Design**

A quasi-experimental control group pretest-posttest design was performed in this study. This quasi-experimental research model involved students divided into experimental and control groups, with each group was given a different treatment. The researchers involved available groups (Creswell, 2012). In this case, quasi-experimental models are considered efficient in educational research (Sulak and Güneş, 2017). This study used a class-based quasi-experimental design with experimental groups and pre-test-post-test controls to examine the effect of PWIM and textbooks on early reading skills in elementary school. The design of this study is the nonequivalent control group. This study did not employ random assignment but rather purposively used the experimental and the control classes determined beforehand. Each student in the experimental class applied PWIM for early reading skills while in the control class, students were taught using textbooks for early reading skills. The independent variables in this study were the PWIM learning model and learning model using textbooks, while the dependent variable in this study was the early reading skill tailored to thematic learning material.

This quasi-experimental study was used to determine the differences in the ability of the experimental and control classes. The experimental research design used in this study was in the form of a nonequivalent control group design. According to Sugiyono (2017), in such a study, there will be two groups purposively selected. Both are then given a pre-test to find out the initial state and differences between the experimental and the control groups. The results of a good pre-test are confirmed when the values of the control group in the experimental group are not significantly different. Based on the research design stated above, this study employed the following nonequivalent control group research design. In Table 1, the research design can be seen as follows.

| Table 1. Research design of nonequivalent control group design |
|-----------------|----------------|----------------|----------------|
| Groups          | pretest        | treatment      | posttest       |
| Experimental    |                | PWIM           | 0₂             |
| Control         | 0₁             | Direct Learning Model using textbooks | 0₂ |

**Participants**

The subjects of this study were 60 students (27 males, 33 females), from an elementary school in Jember, Indonesia. The study samples were taken randomly from two classes. The researchers did not allow the selection and sorting of subjects, as determined by the research designed by Setyosari (2016). The experimental group consisted of 30 students (14 males, 16 females), and the control group consisted of 30 students (13 males, 17 females). The average age of a student was 6 to 7 years. All students who participated in this study completed ten learning activities (including pre-test and post-test).
Procedures

The instruction in the experimental group was carried out by researchers while in the control group; the instruction was undertaken by the class teacher. The instruction was conducted for ten weeks. Two weeks were spent discussing the instructional method under investigation, and the other eight weeks were devoted to the instructional process (Sulak and Güneş, 2017).

In the experimental group, informative text teaching was carried out according to the model performed. Within the scope of the stages stated by Cha and Swaffar (1998), various activities and strategies before, during, and after reading informative texts were employed. These activities and strategies were prepared using some studies from several researchers (Duke, and Pearson, 2002; Güneş, 2007; Gunning, 2005; Hoffman, 2010; Karatay, 2011). The Word Picture Inductive Model has been used in primary school classrooms and proven effective in encouraging student literacy and motivation for early reading skills.

Pre-Experiment Stage

Before the experiment was conducted, the extraneous variables were controlled to ensure no influence on the research results. Afterward, two classes were arranged using a purposive sampling technique. The purposive sampling resulted in one experimental class and one control class. The control of this variable was useful for matching experimental in class and control in class. Matching was meant to ensure the equality of certain initial conditions before the experiment was carried out. Thus, the experimental and control classes had the same starting point. If there was a difference in early reading skills in both classes solely because of the influence of the experimental variables; the control on the early reading skills was carried out using the t-test formula aided by a kind of analysis program, namely Statistical Package for the Social Sciences (SPSS) version 15.0. The difference was considered significant when $p$ was lower than the significance level of 0.05.

Experiment Stage

The activity carried out at this stage was a pilot study of researchers in carrying out experiments. The experimental group was taught using Model Picture Word Inductive and Direct Learning Model using textbooks. The research instrument was the early reading skills rubric. The rubric instrument needs to list the desired characteristics that need to be demonstrated in a student’s early reading skills accompanied by a guide to evaluating early reading skills. The following section describes the learning process involving the Picture Word Inductive Model (PWIM).

- Selecting pictures
  The teacher presents some images. For the selection of images, it is important to choose pictures familiar with students. Students can understand the meaning based on the image in the form of photos, paintings, cartoons, or so on. It is also a good idea to have certain themes that are tailored to the existing curriculum. The pictures are large enough so that they can be seen by all students in the class.

- Students identify objects based on pictures
  Students identify a picture in learning activities. Teacher asks students to identify what they can see from the images on the board.
- Marking identified pictures
  Students label the picture and are asked to label (name) by mentioning the objects that have been identified in the picture.

- Reading and previewing the pictures by reading aloud;
  Students read the word and spell the word aloud.

- Students are asked to read the words (using lines in the graph when needed) and classify the words.
  Students read the words. At this point, students are asked to read the words and spell them aloud. Next, students can also classify the words into various groups; then they are asked to identify similarities in concepts (for example, initial consonants of words or rhymes) or any similarities in concepts related to learning as a means for affirmation to all students.
- Reading and previewing the graphical words (pronouncing the words, spelling the words, and repeating the process)
At this stage, the students are required to read and review the image word chart. Afterward, they are asked to read and repeat the word chart, as in the previous step.

**FIGURE 4.** The activity of reading and reviewing the words in the picture chart

- Adding words, when desired, along with the picture chart and word to the word bank
  Students give the title to the picture. At this stage, teacher can then add words, especially if the students do not identify the words or when it is necessary to add words in the word image chart and student vocabulary bank.

**FIGURE 5.** Students give the title to the picture

- Students are guided by the teacher in making the title of the word chart
  Students read and review sentences. The next important step is for the teacher to provide guidance to create appropriate titles based on the words. Teachers need to ask the students to think about information of the graph and what they want to say about it.

**FIGURE 6.** Students read and review sentences
- Asking the students to write a word, or compose a paragraph related to the picture word chart
  Students make sentences; Teacher asks students to make sentences, or paragraphs about word graphics guide them to make sentences based on their ideas (words in a pictorial word chart).

![FIGURE 7. Students make sentences or paragraphs](image)

- Reading and rehearsing to write sentences and paragraphs
  The teacher, in the next activity, asks students to classify sentences. This section may be slightly difficult, so the teacher can give examples if they are necessary. Afterward, the teacher also models how to place sentences so that they can produce a complete paragraph. Students need to write that paragraph on the board.

![FIGURE 8. Students can classify the types of sentences](image)

Some situations allow direct learning models using textbooks to be applied in learning (Joyce, Weil, Calhoun, 2009). The teacher may want to introduce some parts of their instruction by using a textbook in reading and giving outlines of lessons by defining key concepts and showing the interrelationships between these concepts. Also, the teacher intends to teach students a skill or procedure with a clear and definite structure. Another situation is when the teacher wants to ensure that students have mastered the basic skills needed in student-centered activities, such as problem-solving. The teacher may want to show intellectual attitudes and approaches (e.g., proposing an argument that must be supported by evidence or encouraging the exploration of ideas). The learning content needs to be appropriate with patterns of explanation, modeling, questions, and application. The last situation is when the teacher wants to foster student interest in the topic of reading with a textbook.

Post-Experimental Stage

As a final step after receiving treatment, the two classes were given a post-test with the same material as given during the pre-test. Administering the post-test was intended to see the improvement in early reading skills after being given treatment. In addition, comparing the
value achieved by students during pre-test and post-test and further delved into whether the results of writing short stories were the same, whether it increases or even decreases.

**Data Analysis**

Quantitative data were analyzed to answer the research question; the data analysis technique used was the t-test parametric statistical analysis. This test examined whether there were significant differences statistically in the dependent variable between two or more groups against one independent variable (Gall, Gall, and Borg, 2007). Standard deviation, arithmetic mean, and one-way analysis of variance were employed as research data analysis. Data obtained from this study were analyzed by statistical program of SPSS 15.0. The raw scores obtained from the pre-test and post-test research were recalculated more than 100 points (Sulak and Güneş, 2017). The data were analyzed by the Kolmogorov-Smirnov test to investigate whether the scores obtained from the pre-test and post-test research showed a normal distribution. Because the data ranged between normal values, then the parametric tests were used. In the stage of identifying class equality, a T-test was used to determine whether there were significant differences between the scores obtained by different classes or not.

Normality test were conducted to determine the normal distribution of research data. The normality tests were carried out on the pre-test and post-test scores using the Kolmogorov Smirnov formula, which was carried out with the Asymp rule. Sig or p-value was determined at 5%. If $p > 0.05$, the data were considered to have a normal distribution. Homogeneity tests were conducted to find out if the samples taken from the population possessed the same variable and to ensure equivalent with respect to the variable between the groups. To test the homogeneity, it was necessary to do a test of variance on the distribution of the groups under investigation (Nurgiyantoro, 2017). Homogeneity tests were carried out on the pre-test and post-test scores by employing the significance level of 0.05 (5%). Unpaired means tests were deployed to determine whether there was a post-test score of students from the experimental group and the control group (Sulak and Güneş, 2017).

The data analysis technique used to test the hypothesis in this study was the T-test and gain score test. T-test was intended to test whether the average value of the two groups had a significant difference. The results of the t-test were interpreted by looking at the Sig. (2-tailed), then compared with the significance level of 0.05. The data were considered to pose a significant difference if the $p$ value was smaller than the 5% significance level. The gain scores were employed to investigate the difference in mean of pre-test and post-test in each control and experimental group. The gain scores were used to determine the increase or decrease in scores and to examine the effectiveness of the instructional strategy. However, before the test, the hypothesis, homogeneity test, and normality test were performed.

The technique used to determine the effectiveness of the learning model under study can be seen in the form of differences in pre-test and post-test scores. The amount of pre-test and post-test data (gain score) obtained were then calculated. The gain score show the degree of the effectiveness in using the learning model. To calculate the gain score, the following formula can be used.

$$\text{Gain Score} = \frac{s_{post} - s_{pre}}{s_{max} - s_{pre}}$$

Where:

- $s_{post}$: Post-test score
- $s_{pre}$: Pre-test score
- $s_{max}$: Ideal maximum score

The criteria for obtaining a gain score using the reference table adapted from (Dantes, 2014) as follows.
Table 2. *Gain score category*

<table>
<thead>
<tr>
<th>Limit</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>g &gt; 0.7</td>
<td>High</td>
</tr>
<tr>
<td>0.3 &lt; g ≤ 0.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>g ≤ 0.3</td>
<td>Low</td>
</tr>
</tbody>
</table>

**RESULTS**

Data analysis was performed using the statistical program SPSS 15.0. In the analysis, statistical tests through computers were focused on the p-value. This p-value was employed for statistical test decisions by comparing p-values with α (alpha). The things to be presented included the data presented in the form of the early reading skills test results. The data were related to average scores, standard deviation, and minimum as well as maximum values, including data from the pre-test (control group pre-test data), post-test (control group post-test data), pre-test (experimental group pre-test data), and post-test (experimental group post-test data). The normality test was done to make sure that the data were normally distributed, performed by the Kolmogorov-Smirnov method. When the asymp.sig value was greater than 0.05, the data were normally distributed. The results of the normality test calculation are presented in Table 3.

Table 3 shows that, based on the Kolmogorov-Smirnov analysis, both groups of data had asymp value of greater than 0.05, meaning the data were normally distributed. The homogeneity test aimed to find out whether the data were homogeneous. This analysis was performed by the F Levene test by comparing the sig values. (p). When the value was greater than 0.05, then the data were homogeneous. The results of the calculation of the F Levene test F are presented as follows (Table 3).

Table 3. *Distribution of Normality Test Results*

<table>
<thead>
<tr>
<th>Variable</th>
<th>The Value of Asymp. sig.</th>
<th>Threshold Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>group</td>
<td>Pre-test</td>
<td>0.190</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>0.455</td>
<td>0.05</td>
</tr>
<tr>
<td>Control group</td>
<td>Pre-test</td>
<td>0.061</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>0.062</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Table 4 shows that the analysis of F value indicated that the value of sig. was greater than 0.05, meaning that the data were homogeneous.

Table 4. *Homogeneity Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>The Value Sig. of F</th>
<th>Threshold Value</th>
<th>Data Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental-Control</td>
<td>0.059</td>
<td>0.05</td>
<td>Homogenous</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test of Normality</th>
<th>Kolmogorov-Smirnov(a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model of Learning</td>
<td>Statistic</td>
<td>Df</td>
</tr>
<tr>
<td>Early Skill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>PWIM</td>
<td>.285</td>
</tr>
<tr>
<td></td>
<td>Textbook</td>
<td>.257</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test of Homogeneity of Variance</th>
<th>Levene Statistics</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Reading Skill</td>
<td>Based on Mean</td>
<td>9.710</td>
<td>1</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Based on Median</td>
<td>4.388</td>
<td>1</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Based on Median and with adjusted df</td>
<td>4.388</td>
<td>1</td>
<td>34.294</td>
</tr>
<tr>
<td></td>
<td>Based on trimmed mean</td>
<td>7.991</td>
<td>1</td>
<td>58</td>
</tr>
</tbody>
</table>

*a Lilliefors Significance Correction*
The Comparison of Pre-test and Post-test Scores from Experimental Group

The t-test results of dependent were analyzed to determine whether there were significant differences between the mean scores of the pre-test and post-test of the experimental group (see Table 5).

<table>
<thead>
<tr>
<th>Value</th>
<th>Experiment Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>30</td>
<td>72.00</td>
<td>9.154</td>
<td>1.671</td>
<td></td>
</tr>
<tr>
<td>Post Test</td>
<td>30</td>
<td>88.67</td>
<td>7.980</td>
<td>1.457</td>
<td></td>
</tr>
</tbody>
</table>

The table above shows that there is a statistically significant difference in favor of the post-test (t = -7.517; p < .05) when the pre-test and the post-test scores of students in the experimental group were compared. In addition, the PWIM indicates a mean of 88.67 obtained by the experimental group with respect to the “early reading skills” variable. This score is significantly higher than that obtained from the pre-test (M=72.00). This result indicated a positive effect on the level of early reading skill.

The Comparison of Pre-test and Post-test Scores of the Control Group

The dependent group t-test was used to determine whether there was a significant difference between the pre-test and post-test scores of the control group in the “early reading skills” variable. The analysis results are presented in the table below.

<table>
<thead>
<tr>
<th>Value</th>
<th>Control Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>30</td>
<td>70.17</td>
<td>8.355</td>
<td>1.525</td>
<td></td>
</tr>
<tr>
<td>Post Test</td>
<td>30</td>
<td>82.33</td>
<td>9.260</td>
<td>1.691</td>
<td></td>
</tr>
</tbody>
</table>

The above table shows that there are statistically significant differences in supporting the post-test (t = -5.343; p < .05) when the pre-test and post-test scores of students in the control group are compared. In addition, textbooks show an average of 82.33 obtained by the control group with respect to the variable of “early reading skills.” This score was significantly higher than that obtained from the pre-test (M = 70.17). These results showed a positive effect on the level of early reading skills. Although textbooks could improve early reading skills, the improvement was not as high as early reading skills at PWIM.

Table 7. N-Gain Scores of experimental and control groups

<table>
<thead>
<tr>
<th></th>
<th>PWIM</th>
<th>Textbooks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>Experimental</td>
<td>Control</td>
</tr>
<tr>
<td>Post-test</td>
<td>88.67</td>
<td>82.33</td>
</tr>
<tr>
<td>Pre-test</td>
<td>72.00</td>
<td>70.17</td>
</tr>
<tr>
<td>N-Gain</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Category</td>
<td>High</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

To explain how much was the improvement of students’ performance in both groups, the N-gain was employed. The experimental group students showed a more superior gain score compared to the control group. They noted improvement in the amount of 0.9 and 0.6 on early reading skills by using PWIM and textbooks, respectively.

The last research purpose was to analyze the correlation between early reading skills using PWIM and early reading skills using textbooks done by elementary teachers in the experimental group. Based on data analysis, we found out the existence of a strongly positive and significant correlation between early reading skills by using PWIM and textbooks. It can be
concluded that students’ reading skills improvement taught by using PWIM could increase their academic achievement.

**DISCUSSION and CONCLUSION**

PWIM is a teaching technique for learning to read by using familiar objects, actions, or events to build students’ vocabulary during reading instruction. The approach can also be used to improve writing to test and classify phonetic features by paying attention to the linguistic structures in words. This strategy is designed to train students’ inductive thinking skills. The students are then guided to associate the words they find from the picture, which helps to enrich their vocabulary and to compose sentences and paragraphs. Inductive and explicit pronunciation and spelling learning can use the PWIM. It is designed to stimulate students’ inductive thinking skills.

Picture can stimulate students to connect their life experiences and mastery of their language in class. The teacher prepares words about the name of the picture, and connects it with lines; this case means the teacher must collect the words that students can use to show the appropriate picture. Such relationships can develop new ideas in learning vocabulary (Joyce, Weil, Calhoun, 2009). The students identify what they can see from the picture on the board. Teachers ask the students to pay close attention to every detail of the image, in the form of objects, events, situations, and actions. The teachers need to give the students a few minutes to think and identify the parts of object shown in the image. The teachers also ask the students to label (name) things identified to image. The teachers can make a line (chart) of the area or object that has been identified if needed as a pointer. At this stage, the teachers’ guide students to name (words) according to what has been identified, and write down those words. The students are asked to draw a line to mark identified objects or regions, utter the words, write the words, spell out the words loudly, and then say them (Joyce, Weil, Calhoun, 2009).

In many countries, reading problems are solved at the state level; institutions are created to support and develop reading. A positive example could be called the Stiftung Lesen, which was created in Germany, to coordinate work with young people to overcome the total reading-related crisis. The foundations for improving the reading status of British citizens are Public libraries (Shastina, Shatunova, Bozhkova, Bykov, and Trofimova, 2019). These public libraries were designed by them in 2000. Thousands of participants gathered large-scale programs called Call of Summer Reading, Book Start, Joint Reading in the Family, and others addressed to children and parents (Ince and Gözütok, 2018). Much attention is paid to the formation of reading culture today in African countries (Oyemike, 2012; Ruterana, 2012).

There is an opinion confirmed by studies that if the children of preschool and early school age instill the habit of reading for pleasure, one can achieve a culture of literacy (Wolsey, Lapp, Fisher, 2010), through the expansion of the vocabulary, and improving memory and speech (Cho, Krashen, 2016). Reading for pleasure (or for the soul) also has therapeutic benefits; it allows a stressed person to get out of this state, switch to another emotional state (Harrison, 2017). This case is the motive behind the answers of our respondents in the first place (about 61%) (Shastina et al., 2019). Since human is born, it actually has brought the reading skills of acquisition. The reading ability in primary school students is determined by previous experience and knowledge. The attitudes and behaviors developed by students toward the skill of using picture words are very influential elements (Kuruyer, Akyol, Karli Oğuz, and Has, 2017). According to the reading skills test used by PISA, there must be a diversity of texts, such as proficiency and reading skills in the curriculum of school learning (Ince and Gözütok, 2018).
Previously, developing and using methods had been investigated in the US; particularly, the study dealing with difficulty in reading in Turkey (Ates, 2013; Baştuğ, and Keskin, 2014). However, this method was developed for American students who made it possible to meet curriculum demands in the US. Turkish students are not always suitable for using the method. As such, these results show that new methods need to be developed to eliminate the national level in reading problems. In addition, the way of dictation has not been found in the method scope, except using the Fernald Method. Dictation methods used by students and teachers are not widely available. However, both methods of speaking (Goswami, Thomson, Richardson, Stainthorp, Hughes, Rosen, 2002; Keskin, Baştuğ, and Akyol, 2013) and writing (Graham, and Hebert, 2011) to reading are strongly related to related linguistic skills, which consist of reading skills and interrelated processes. Therefore, it has been acknowledged the relationship between speaking, reading, and writing must be in harmony so that the problem of low reading is surmounted. Method development includes the use of reading, writing, and speaking skills to reduce reading difficulties. This current study aimed to develop "students-centered reading learning" and the effectiveness of the test of reading learning in reducing the problem of students with low-reading achievement.

In the same case, this research attempted to propose new methods to be used and practiced in the classroom. The right method used in students play an active role in student-centered reading learning activities to improve reading skills. Education, modeling, or direct assistance to students, are all considered essential in improving reading comprehension. Students speak, form sentences or paragraphs, and a teacher dictates students. After that, students read and write sentences that have been dictated by the teacher, about the images they encounter according to their personal experiences and personal expressions. Reading is centered on students by taking into account the phonetic-based sentence writing commonly employed in Turkey (MoNE, 2006).

From the results of data analysis and discussion of research results, it can be concluded there were differences of significant in to early reading skills of the first-grade of elementary school, as evinced by the differences in pre-test and post-test scores in the experimental group taught by using PWIM. Also, there were no significant differences in reading skills in the first-grade students in primary school as demonstrated by the analysis on pre-test and post-test of the control group taught using textbooks. These results indicated that there were significant differences in the early reading skills between the experimental and the control groups. In terms of early reading skills, the experimental group showed an increase in average scores by 0.9, while the control group also achieved an increase by 0.6.

The implementation of learning to begin with using PWIM in this study had a positive effect, which could improve the reading skills of elementary school students. The teacher can use the stages and learning media carried out in this study, especially in early reading skills. The media used in this study was picture word inductive model. Furthermore, the teacher can use the word picture media in the early reading skills on different material. (Joyce, Weil, Calhoun, 2009) showed how images could function as important stimuli to connect learners' life experiences with their language learning in class. The teacher writes each word identified on the graph paper outside the picture and draws lines from the words to the items in the picture, basically creating a dictionary of words, which students can use to connect words with the corresponding picture.

The use of PWIM in the learning of early reading skills can help students overcome obstacles in reading and inductive thinking easily. Therefore, learning to begin with using the picture word inductive model can be developed in subsequent learning. Inductive picture word models can also be used as models to increase students' creativity and involvement in the learning process, because students are asked to describe the pictures that the teacher has provided on the board so that the material can be easily understood by students and does not cause boredom. This case implies that learning using the picture word inductive model can be used as an alternative variation of the learning model by class teachers. The success of these actions also has implications for the use of other types of media apart from the media used in these actions, namely the word media. The media in question have the potential to be used and
developed by class teachers or teachers in other fields of study as an alternative learning media that can improve the quality of learning.

The inductive word model picture is more suitable for use in learning at primary and secondary education levels, because the characteristics of this model are related to the level of child development at primary and secondary school age, namely at the level of concrete thinking. If this model is used at other levels of education, it needs to be combined with other methods.

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