Investigating the Effect of IEPC Strategy Toward Students’ Reading Comprehension

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Abstract
This research was aimed to find out the effect of IEPC strategy (Imagine, Elaborate, Predict, Confirm) strategy and students’ reading motivation on students’ reading comprehension. It was a quasi-experimental research design. It was conducted at the second grade students of SMAN 12 Pekanbaru. The sample was selected by using cluster random sampling technique with 33 students of IX IPS 2 as experimental class and 34 students of IX IPS 1 as control class. Reading comprehension test was tested as the instruments in this research in order to collect the data. The result of data analysis indicated that IEPC strategy has a better achievement toward reading comprehension for students than small group discussion at the second grade students of SMAN 12 Pekanbaru. Hence, IEPC strategy was an effective strategy for students’ reading comprehension compared to small group discussion. The result shows that value of \( t_{\text{observed}} \) 1.725 was higher than the value of \( t_{\text{table}} \) 1.668. Hence, applying IEPC strategy on students’ reading comprehension had a better achievement than applying Small Group Discussion.

Keywords: Imagine Elaborate Predict Confirm Strategy, IEPC strategy, reading comprehension

Introduction
Reading has been widely known as fundamental skill for students to achieve the goal of learning in classroom. Reading comprehension is the ability to take the information from written and do something with it in a way that demonstrate knowledge or understanding from the information (Brassell and Rasinski, 2008). In addition, reading comprehension is the process of making meaning from the text (Wolley, 2011). It can be summarized that reading comprehension is intended to help students to enhance their knowledge regarding the understanding of meaning from the text information.

Regarding learning activity in reading class, students still have insufficient mastery to determine the classification of the text. Reading activity refers to the mastery of students in comprehending a text. It is because within a text, there are components that should be recognized by students. Those consist of identifying main ideas, supporting details, detailed information, and so on. In addition, students still have difficulty in determining the main ideas, topics, reference, and vocabulary from context in answering the question of reading test. Thus, it is necessary for teacher to pay attention regarding the ability of students to read and comprehend any texts given by their teachers while teaching and learning process.

Many scientific methods of language teaching are used by researchers in conducting their research. Applying a good method is needed by teacher to gain the students’ learning outcome. IEPC (Imagine, Elaborate, Predict, and Confirm) strategy is a whole class strategy designed to take the predictive process back to its origins in the imagination and extend it throughout the pre-reading, reading and post-reading stages of an instructional lesson (Wood and Endres, 2004). It means that this strategy guides students to explore their knowledge regarding the information of the text by following the steps of Imagining, Elaborating Predicting and Confirming.

The first component imagination refers to the process of developing imagination by using a picture. Students can imagine the scene, characters, and events related to the picture shown to them. In this phase, students should create their imagination before reading a text so that they are guided by creating their imagination in reading in order to gain any information within a text (Mahdum, 2007). It means that the imagination refers to the vision, hearing, smelling, feeling, and emotion of the students in comprehending a text. The second component elaboration refers to the practice of forming connections between previously learned information and new content through imagery and visualizations, analogies, descriptions and details (Wood and Endres, 2004). It means that students have to use their prior knowledge in imagining and enhancing the detailed information of a text from what they read in order to comprehend the text. The third
component prediction refers to the process how the students make prediction of the text they read. Prediction is a means used by students to predict what the information appears on the sentence after they read. The last component confirmation refers to the process of making confirmation after students predict. In this phase, students confirm whether their prediction is correct or not related to the text they read before.

A teacher needs a strategy to make students to identify a text and increase the students’ reading comprehension while teaching and learning process as a better strategy in achieving learning outcomes. IEPC as a new strategy is intended to produce a positive effect to enrich their reading comprehension. Even though many researchers had conducted the research about IEPC strategy, IEPC strategy is still needed to research based on the learning case in Indonesia. Hence, this research is intended to investigate the effect of IEPC (Imagine, Elaborate Predict, and Confirm) strategy on Reading toward students’ reading comprehension.

**Method**

This research is a quasi-experimental research. The population of this research was the second grade students of SMAN 12 Pekanbaru. The number of population was four classes which consisted of 27 students. Two classes selected randomly were experimental and control class by using cluster random sampling. IEPC strategy was applied for the experimental class and Small Group Discussion was implemented for the control class.

Reading comprehension test was used as the instrument of this research. It was tested as post test after implementing treatment. Multiple choice tests were applied in this research to assess the students’ reading comprehension related to the Analytical Exposition text. The students were given several texts of Analytical Exposition and answer the optional of the question. In addition, IEPC strategy aims to guide students to read well a text comfortably to construct the following components; imagine, elaborate, predict, and confirm.

This research was conducted during 8 meetings in which there were two meetings in a week. During the conducting the research at the school, IEPC strategy was applied by researcher in experimental class and Small Group Discussion was applied by researcher in control class for students. At the end of conducting the research at the school, post-test consisted of multiple choice test was conducted by researcher. In scoring process, scoring rubrics of reading comprehension adapted from Hughes (2003) includes identifying topic, identifying main idea, identifying details, finding out reference, and determining vocabulary from context. In analyzing the data of reading comprehension test, researcher used SPSS 17 for Windows. In this research normality and homogeneity testing were tested by using Shapiro-Wilk Test. To test hypothesis, the researcher used Independent Sample t-test with significance alpha 0.05.

Hereafter, this research has two hypotheses including null hypothesis (H₀) and alternative hypothesis (H₁). The hypothesis can be seen as follows:

H₁ : IEPC strategy produces a better achievement toward students’ reading comprehension than Small Group Discussion
H₀ : IEPC strategy does not produce a better achievement toward students’ reading comprehension than Small Group Discussion

The statistical hypothesis can be written as follows:

H₀ : µ₁ = µ₂
H₁ : µ₁ ≠ µ₂

Where:

µ₁ : Reading Comprehension Average Score of IEPC strategy
µ₂ : Reading Comprehension Average Score of Small Group Discussion

In analyzing the hypothesis, the data were calculated by using Independent Sample t-test in which the value of tₐᵋₜₛᵢᵥₑᵈ was compared to the value of tₐₜₗₑₛ. H₁ is accepted if the value of tₐᵋₜₛᵢᵥₑᵈ is higher than tₐₜₗₑₛ and H₁ is rejected if the value of tₐᵋₜₛᵢᵥₑᵈ is lower than tₐₜₗₑₛ.

**Results and Discussion**

After analyzing data of students’ reading comprehension test in experimental and control class, it was obtained that IEPC strategy implemented to the students has a better achievement than Small Group Discussion. Hence, IEPC strategy produced the effect of students’ reading comprehension. The data description can be seen in the table below:
Table 1. The Summary of Students’ Reading Comprehension in Experimental and Control Class

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>SD</th>
<th>Variance</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>33</td>
<td>78.45</td>
<td>96</td>
<td>60</td>
<td>8.57</td>
<td>73.5</td>
<td>2589</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>75.26</td>
<td>89</td>
<td>60</td>
<td>6.44</td>
<td>41.53</td>
<td>2559</td>
</tr>
</tbody>
</table>

The table shows that the mean score of students’ reading comprehension applied by using IEPC strategy is higher than applying Small Group Discussion (78.45). Hence, it can be concluded that teaching reading by applying IEPC strategy produces better result than applying Small Group Discussion.

Hereafter, the normality and homogeneity testing were also tested in this research. The normality test was analyzed by applying SPSS 17 with Shapiro-Wilk Test and the homogeneity testing was analyzed by applying Variance Test (F-test). The hypothesis was also tested by applying t-test formula. It can be seen on the detailed description below.

a. Normality Testing

The normality testing stands for a test in this research to find out whether the data collected from experimental and control groups were normally distributed or not. The data were categorized into normal if the significant value is higher than the significance alpha 0.05. After analyzing the data, the significance value was 0.140 in experimental class and 0.073 in control class. It means that the data were normally distributed. It can be seen on the output below:

<table>
<thead>
<tr>
<th>Class</th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Statistic    Df</td>
<td>Sig.</td>
</tr>
<tr>
<td>Experimental</td>
<td>.156         33</td>
<td>.041</td>
</tr>
<tr>
<td>Control</td>
<td>.166         34</td>
<td>.018</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

b. Homogeneity Testing

The homogeneity testing was intended to find out whether students’ reading comprehension in experimental and control groups had variant homogeneity or not. The data were categorized into homogenous if the significant value is higher than significance alpha 0.05. After analyzing the data, the significance value was 0.210. It means that the data were normally distributed. It can be seen on the output below:

<table>
<thead>
<tr>
<th>Reading</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Mean</td>
<td>1.602</td>
<td>1</td>
<td>65</td>
<td>.210</td>
</tr>
<tr>
<td>Based on Median</td>
<td>1.694</td>
<td>1</td>
<td>65</td>
<td>.198</td>
</tr>
<tr>
<td>Based on Median and</td>
<td>1.694</td>
<td>1</td>
<td>61.994</td>
<td>.198</td>
</tr>
<tr>
<td>adjusted df</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Based on trimmed mean</td>
<td>1.603</td>
<td>1</td>
<td>65</td>
<td>.210</td>
</tr>
</tbody>
</table>

c. Hypothesis Testing

The hypotheses testing were tested to find out whether the hypotheses are accepted or not. In analyzing the hypothesis, datum was analyzed by applying Independent Sample t-test in which the value of \(t_{observed}\) was compared to the value of \(t_{table}\). \(H_1\) is accepted if the value of \(t_{observed}\) is higher than \(t_{table}\) and \(H_1\) is rejected if the value of \(t_{observed}\) is lower than \(t_{table}\). The hypotheses in this research are:

\(H_1\) : IEPC strategy produces a better achievement toward students’ reading comprehension than Small Group Discussion.

\(H_0\) : IEPC strategy does not produce a better achievement toward students’ reading comprehension than Small Group Discussion.

After analyzing the data, the mean score of students’ reading comprehension in experimental class categorized into 78.45 were higher than control class in which the mean score was 75.26. \(t_{observed}\) was 1.725 which were higher than \(t_{table}\) 1.668. It can be seen on the following table below:
Table 4. The Summary of T-test Analysis of Students’ Speaking Test in Experimental and Control Class

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t\text{observed}</th>
<th>t\text{table}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>33</td>
<td>78.45</td>
<td>8.54</td>
<td>1.725</td>
<td>1.668</td>
</tr>
<tr>
<td>Control</td>
<td>34</td>
<td>75.26</td>
<td>8.44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table shows that the alternative hypothesis (H\textsubscript{1}) is accepted and the null hypothesis (H\textsubscript{0}) is rejected. It can be seen from the value of t\text{observed} 1.725 was higher than the value of t\text{table} 1.668. Hence, applying IEPC strategy on students’ reading comprehension had a better achievement than applying Small Group Discussion.

According to the analysis above, it is shown that IEPC strategy can produce the effect of the students’ reading comprehension. Some researchers also conducted the result in their research. Setiawan (2016) found that IEPC strategy is effective to be conducted during the research process before and after treatment. Thereafter, Wardani (2012) found that IEPC is to make students expected to read the text effectively and efficiently. It means that IEPC provides opportunities for students to develop their reading comprehension.

This research has a limitation of the using the text. Researcher investigate the effect of students’ reading comprehension related to Analytical Exposition text, in fact this research is limited only on this text. It is recommended for the next researcher to conduct this research in applying IEPC strategy towards other genre of the texts in order to obtain the result of the research.

Conclusions
IEPC strategy produces a better achievement toward students’ reading comprehension. IEPC strategy provides opportunities for students to develop their reading comprehension while learning activity in reading class. IEPC strategy produces a positive effect to enrich students’ reading comprehension. Through imagining, elaborating, predicting, and confirming activity, the students can read well a text comfortably by creating their imagination and prior knowledge while teaching and learning process. It means that the students are free to explore any information to comprehend the text they read. Hence, IEPC strategy is effective to be applied in teaching reading.

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References