THE EXPLICIT COMPREHENSION-STRATEGY INSTRUCTION: QUESTION-ANSWER RELATIONSHIP VS SELF-QUESTIONING

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Abstract
This study was aimed at examining and comparing the effectiveness of the Question-Answer Relationship (QAR) and Self-Questioning (SQ) strategies in improving the reading ability of the undergraduate students. This study was a quasi-experimental study in which two out of three classes of the third semester students at English department of Mataram University were selected randomly to receive either QAR strategy or SQ strategy instructions for ten weekly meetings. The findings of pre- and posttest with multiple-choice questions revealed that both comprehension strategies were effective in improving the undergraduate students’ reading ability. The findings from the posttest with multiple-choice questions indicated the students who received SQ strategy instruction scored significantly higher than those students who received QAR strategy instruction. On the other hand, the students who received QAR strategy instruction scored slightly higher than those students who received SQ strategy instruction in the posttest with open-ended questions.

Keywords: Reading Ability, Comprehension-Strategy Instruction, Question-Answer Relationship Strategy, Self-Questioning Strategy

Introduction
Reading ability is critically important for learners in any educational program in which they are expected to understand the reading material to meet the needs of academic standard. Without having good level of reading ability, they will run into difficulties and even fail in their attempts to get the meaning, ideas or thoughts from what they are reading.

The ability to comprehend the reading material depends on a variety of factors and one of them is a strategy which a reader employs when reading. Strategies in reading are defined as deliberate actions that readers take to establish and enhance their comprehension (Lems, et.al 2010). Thus, teaching reading strategies to students is one of the effective means of helping them to overcome the roadblocks they may encounter in the path to comprehension (McNamare, 2009).
actively engaged through goal-directed and organized thinking (Williamson, 1996).

This study was mainly aimed at answering the following research questions were formulated: (1) Does the instruction of Question-Answer Relationships strategy significantly affect the undergraduate students’ reading ability?, (2) Does the instruction of Self-Questioning strategy significantly affect the undergraduate students’ reading ability?, and (3) Is there any significant difference in reading ability between the undergraduate students taught QAR strategy and those taught SQ strategy?

Methodology
A quasi experimental design was employed and two out of three classes of the third semester students at English department of Mataram University were randomly assigned to either Question-Answer Relationship strategy group or Self-Questioning strategy group. The students involved in this study were those who enrolled in Reading III course in academic year 2016/2017 which consist of 34 students and they were assumed to be homogeneous or have similar level in reading performance prior to the experiment as they had passed Reading II course as a prerequisite course and the fact that Levene’s test result from their pretest scores showed to be in homogeneous level.

The students’ reading ability was measured with a 30-item multiple-choice content test which was administered for the purpose of pre- and posttest and an 8-item open-ended content test which was administered for the purpose of posttest only. To score the results from the multiple-choice content test, one point was given for each correct answer that each student obtained. The passing score for the reading comprehension test was set at 15, which corresponds to 50% of the expected perfect score of 30 points. Whereas to score those from the open-ended content test, rubrics were developed and the students’ answers were scored by two scorers, i.e. the researcher and the assigned lecturers and reliability between scorers was reconciled to 100% agreement.

The two groups of students received different strategy instruction for ten-weekly meetings and each meeting lasted for 110 minutes. The first group received QAR strategy instruction, whereas the second group received QAR strategy instruction. Basically, each of the experimental group received the explicit comprehension-strategy instruction based on the gradual release of responsibility model (Pearson & Gallagher, 1983) in which at the beginning of a lesson or phase, the lecturer has a prominent role in the delivery of the content. But as the students acquire the new information about what and how to practice the reading strategy, the responsibility of learning shifts from teacher-directed instruction to student processing activities.

With the help of SPSS 23, the t-test of paired samples and independent samples were employed to analyze obtained scores from the reading comprehension test administered before and after the intervention. The paired t-test was administered to respond to the first and second research questions, whereas the independent t-test was administered to respond to the third research question. In addition, the results of these tests was used to determine whether the statistical (null) hypothesis is rejected or not.

Finding and Discussion
To respond to the first and second research questions, t-test of paired samples (Table 2 and 4) was applied to examine whether the difference between the means of the participants’ pre- and post-test scores was statistically significant. However, the mean and standard deviation of the pre- and post-test scores for each group (Table 1 and 3) were presented before the paired samples test
to provide better description about each group’s reading ability.

Table 1. Mean and standard deviation of pre- and post-test scores

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>54.7059</td>
<td>17</td>
<td>8.84424</td>
</tr>
<tr>
<td>Post-test</td>
<td>66.9412</td>
<td>17</td>
<td>5.77138</td>
</tr>
</tbody>
</table>

Table 2. The results of paired samples test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-12.23529</td>
<td>6.09846</td>
<td>-8.272</td>
<td>16</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Looking at Table 2, we can find that the value of Sig. (2-tailed) was 0.000 which was lower than 0.05. This means that there was a significant difference between means of pre- and post-test scores obtained by the students who received QAR strategy instruction. In other words, Question-Answer Relationships strategy significantly affected the undergraduate students’ reading ability. Thus, the null hypothesis is rejected. In addition, it is found that the difference between the obtained scores before and after the treatment indicates that there is an improvement in reading score with 12.24 points (see Table 1).

Table 3. Mean and standard deviation of pre- and post-test scores

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>56.4118</td>
<td>17</td>
<td>10.65985</td>
</tr>
<tr>
<td>Post-test</td>
<td>72.9412</td>
<td>17</td>
<td>8.15069</td>
</tr>
</tbody>
</table>

Table 4. The results of paired samples test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-16.52941</td>
<td>9.34156</td>
<td>-7.296</td>
<td>16</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

The value of Sig. (2-tailed) in Table 5 which was lower than 0.05 indicates that there was a significant difference between means of pre- and post-test scores obtained by the students who received SQ strategy instruction. This means that Self-Questioning strategy significantly affected the undergraduate students’ reading ability. Thus, the null hypothesis is rejected. In addition, it is found that the difference between the obtained scores before and after the treatment showed that there is an improvement in reading score with 16.53 points (see Table 3).

Further, to examine if there was any significant difference in reading ability between the undergraduate students receiving QAR strategy instruction and those receiving SQ strategy instruction, their posttest scores from the multiple-choice and from the open-ended content posttest were analyzed separately. In this way, their reading ability was viewed from two different test formats and for this purpose, independent samples t-test was applied to the posttest scores obtained from each test format respectively. In addition, their mean scores were also presented before the t-test for independent samples.

Table 5. Means of the multiple-choice posttest scores

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<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>QAR group</td>
<td>66.9412</td>
<td>17</td>
<td>5.77138</td>
</tr>
<tr>
<td>SQ group</td>
<td>72.9412</td>
<td>17</td>
<td>8.15069</td>
</tr>
</tbody>
</table>
In Table 5, we can find that mean score obtained by the students in SQ class is higher than that obtained by those students in QAR class and in Table 6, we can see that the value of sig. is 0.019 which is lower than 0.05. This means that there is a significance difference between those two mean scores. Therefore, the null hypothesis is rejected.

Table 7 shows that mean score obtained by the students in QAR class is higher than that obtained by those students in SQ class. However, in reference to result of independent sample test, these two means did not differ significantly as the value of sig. (0.487) is higher than 0.05.

Based on the results of data analysis above, it can be confirmed that both questioning strategies are effective for improving the students’ reading ability, in particular for those students in higher education level. These findings extend and are in line with the findings of previous studies about QAR strategy, such those studies conducted by Cummis, et.al (2012), Hemmati and Bemani (2013), Rothong and Ekkayokkaya (2014) and the findings of those studies about SQ strategy, such those conducted by Berkeley, et.al (2011), Afzali, et.al (2012), Dorkchandrad (2013) in which they measured the effectiveness of teaching QAR or SQ strategies for improving the students’ reading ability viewed from the progress or improvements in scores from the pretest and posttest.

From quantitative data analysis of finding in the posttest with multiple choice questions, it was found that there was a significant difference between the mean scores obtained by the students in the first and those in the second experimental groups. The second experimental group who received SQ strategy instruction outperformed the first experimental class who received QAR strategy instruction. One reason may be the nature of SQ strategy which engages students in metacognitive process in reading. Self-questioning helps them to check how well they are comprehending what they are studying (King, 1991 & 1992) and it enables students to become independent in their understanding of text because they are actively engaged through goal-directed and organized thinking (Williamson, 1996).

On the other hand, the quantitative data analysis of finding from the open-ended content test indicated that the first experimental group performed better than the second experimental group. This was presumably due to the students in the first experimental group were benefitted from QAR strategy which teaches them how to distinguish questions with answers that are found “in the book” and questions with answers found “in my head”, particularly those questions in the short-answer or open-ended format. QAR strategy assists students to demystify the questioning process in which it tells them different types of questions and sources of information for
answering these questions (Anthony and Raphael, 2004).

The fact that in this study Self-Questioning strategy was superior to the Question-Answer Relationship strategy for the multiple-choice content test, but not for the open-ended content test, has extended and confirmed the previous research study conducted by Berkeley, et.al (2010) which found the superiority of self-questioning for the multiple-choice content test over the open-ended content test. It was found that the students’ mean score was 10.30 in the multiple-choice test and 7.03 in the open-ended test after having been taught self-questioning strategy. Similarly, a study conducted by King (1992) which compared self-questioning, summarizing and notetaking-review as strategies for learning from lectures found that self-questioning was a more effective study strategy than summarizing and notetaking-review strategies for long term retention, but not for a short term retention.

In addition, the findings of this study also highlight and confirm that the different format of test might yield different results. Different test formats measured reading comprehension differently and each format has its own advantageous and disadvantageous. Thus, involving or using more than one test format in reading test is encouraged to have a better or comprehensive information about the students’ reading ability. Hassani, et.al (2012) state that reading performance was not a one-dimensional skill that could be evaluated by a single test format.

Different from the multiple-choice questions, the open-ended or short-answer questions can minimize or does not give test-takers or students the chance for guessing the correct answer. Heaton (1993:26) states that the multiple-choice content test might encourage students to guess the answer. The students might make guesses in taking a certain choice when they were not sure about or did not know the correct answer. This is because in the multiple-choice content test the answers are supplied and test-takers are required to select the answers, whereas in the open-ended content test the test-takers are required to supply the answers. Therefore, the open-ended content test is categorized under the select-type test, whereas the open-ended content test is categorized under the supply-type tests (Hassani, et.al, 2012). Above all, as the students who received the SQ strategy instruction had better performance in reading within the multiple-choice content test, it can be assumed that besides being better at reading comprehension, the students who received SQ strategy instruction had the educated guess skill better than those students who received the QAR strategy instruction.

Conclusions
Question-Answer Relationships and Self-Questioning strategies are two of the strategies employing the questioning as their basic principle, in which the former emphasizes the question-answering practices, whereas the latter emphasizes the question-asking practices.
Teaching both strategies to the students significantly affected their reading performance. The findings of this study indicated that the students’ reading scores in the posttest differ significantly from those in the pretest.
In reference to the findings of the posttest scores, the students who received SQ strategy instruction scored significantly higher than those students who received QAR strategy instruction in the multiple-choice content test. On the other hand, the students who received QAR strategy instruction scored slightly higher than those students who received SQ strategy instruction in the open-ended content test.
Above all, the findings of this study generally emphasize the importance of equipping students with questioning
strategies and suggest to strike a balance between the question-answering and question-asking practices when employing questioning strategies to assist them in their efforts to comprehend the reading materials and to improve their reading ability as well.

On the other hand, it is recommended that a similar study involve more than two reading strategies to compare and employ various or different reading test formats to gauge the students’ reading performance in order to have different perspective about the effectiveness or the superiority of a reading strategy over the others and also to have comprehensive information about the students’ reading ability while considering the causes why they performed better at a certain reading test format and did not at another.

References
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