

The Effect of Using KWL (Know, Want, Learned) Strategy on EFL Students' Reading Comprehension Achievement

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Abstract

There is a fact that most of the Secondary School students are still low in comprehending reading texts. Therefore, the main objective of this study was to see whether the use of KWL (Know, Want, Learned) strategy was effective in improving the students' reading comprehension achievement in learning English as a Foreign Language. Non-equivalent groups pretest-posttest design was used in this study. The population was the eighth grade students of SMPN 4 Palembang in academic year of 2011/2012 with a total number of 254 students. Out of this population, 40 students were taken as sample. There were two groups, each of which consisted of 20 students. The data were collected by using multiple choice reading comprehension test. The data obtained were analyzed by using t-test formula. The finding showed that KWL strategy was effective in improving the students' reading comprehension achievement. The effectiveness was indicated by the result of the Stepwise Regression formula that the contribution of KWL strategy on students' reading comprehension achievement was 70.5%.

Keywords: reading, KWL strategy, reading comprehension achievement

Introduction

Reading as a field of teaching is considered as one of the important areas of teaching. It is one of the most important academic skills. It is also a major pillar upon which teaching and learning process is built. The reading ability plays a central role in teaching and learning success at all education stages (Addison, 1996: 23). It is because most of the materials of teaching and learning are in written form. It means that the students need to improve their reading skills in order to understand the teaching and learning materials. The students will be on the road to academic failure, if they could not read.

Reading comprehension is considered as the real core for reading process. Durkin (1993) assumes that comprehension is the peak of the reading skills and the bases for all reading processes. Teaching students to read with a good comprehension must be teachers' highest priority. Most of EFL teachers have wondered what they might do to improve their students' reading comprehension achievement. The students can read words with lack of understanding of what they read. Without comprehension, reading for pleasure or knowledge is impossible. The teachers of English often assume that students will learn to comprehend merely by reading. Students with good comprehension use strategies in reading to learn new concepts, get deeply involved in what they are reading, critically evaluate what they read, and apply their knowledge to solve practical as well as intellectual. But many students fail in doing these things. According to Cuesta (2003:2), many students take reading for granted. They feel too busy to read, or they may not enjoy reading. Generally, EFL students can only read without being able to correlate the reading they have just read with the knowledge they have.

According to *The International Association for the Evaluation of Educational Achievement*, reading score of Indonesian students in East Asia is still low. Indonesian students are just capable of mastering 30 % reading material, and find difficulty in reading items that are in the form of commentary requiring cognitive process (IAE for the Evaluation of Educational Achievement, 2003). In addition, *PISA 2009* database shows that Indonesia students' score is below the OECD average and on the 57th of 65 countries (OECD, PISA 2009 Database).

Reading is an active process, because it involves interaction between the reader and the text. In reading a text, the reader needs to proceed the information that he/she gets from the text into his/her brain. Students are constantly confronted with new information, particularly once they progress to the upper elementary grades and transition from “learning to read” to “reading to learn” (Chall, 1983). To read to learn effectively students need to integrate new material into their existing knowledge base, construct new understanding, and adapt existing conceptions and beliefs as needed.

According to a study by Pearson, Rochler, Dole, and Duffy (1992) on “Developing expertise in reading comprehension”, a good reader usually using prior knowledge to make sense of new information; ask question about the text before, during, and after reading; draw inferences from text; monitor comprehension; use fix up strategies when meaning breaks down; determine what is important; and synthesize information to create sensory image.

To encourage students to develop effective reading skills, there are various teaching and learning strategies that can be used by the teachers in classroom. Most of the teaching and learning strategies usually focus on a particular strategy or skill. KWL (Know, Want, Learned) strategy is one of teaching and learning strategies used mainly for information text (Ogle, 1986). Its aims are more diverse. It helps readers elicit prior knowledge of the topic of the text; set a purpose for reading; monitor their comprehension; assess their comprehension of the text; and expand ideas beyond the text.

Ogle (1986) developed the strategy for helping students to access important background information before reading nonfiction. The KWL strategy (accessing what I know, determining what I want to find out, recalling what did I learned) combines several elements of approaches. The first two steps of KWL, students and the teacher engage in oral discussion. They reflect on their knowledge about a topic, brainstorm a group list of ideas about the topic, and identify categories of information. Next the teacher helps highlight gaps and inconsistencies in students’ knowledge and students create individual lists of things that they want to learn about the topic or questions that they want to answer about the topic. In the last step of the strategy, students read new materials and share what they have learned.

Based on the observation and interview to the English teachers of SMP Negeri 4 Palembang, it is showed that the students’ ability in comprehending reading texts are at the average level. The writer also found that the teachers are seldom varied their strategy in teaching learning process of English in the classroom. Therefore, the researcher assumes that English teaching and learning at SMP Negeri 4 Palembang should be modified and varied their teaching strategy to more current ways. Shayee (2000) has investigated that KWL strategy has significant improvement on secondary students’ reading comprehension compared to the traditional method.

Based on the background above, through this study, the writer is interested in investigating the effect of using KWL strategy on EFL students’ reading comprehension achievement at SMP Negeri 4 Palembang. The writer also wants to find out whether there is a significant difference in reading comprehension achievement between the students who are taught using KWL strategy and that of those who are not.

Review of Literature

Reading Comprehension

Reading is an active process. It involves interaction between the reader and the text. According to a research by Pearson, Rochler, Dole, and Duffy (1992) on “Developing expertise in reading comprehension”, a good reader usually uses these following skills and strategies: (1) use prior knowledge to make sense of new information (making prediction), (2) ask question about the text before, during, and after reading (reading between lines), (3) draw inferences from text; monitor comprehension (checking and confirming), (4) use fix up strategies when meaning breaks down (guessing meanings from semantic cues, structural cues and visual cues, self correcting), (5) determine what is important (identify main ideas), and (6) determine what is important; and synthesize information to create sensory image.

Level of Reading Comprehension

According to Townsend (2007), there are three different reading levels for each person. They are; (1) Independent level, student can read books easily with very few words which are too difficult for him/her to read.

She/he can read books on his/her own, (2) Instructional level, student can read most of the words, but will be challenged by some words on each page, and (3) Frustration level, student has to stop often and try to decode words. If she/he tries to read a book at this level, she/he will become frustrated.

Barret's Taxonomy (1972) cited in Dupuis, et.al. (1989:313) identify that there are four levels of reading comprehension. First, literal recognition or recall. The literal level is the lowest cognitive level where the reader understands just what the words mean. The information that is stated explicitly in the text is retrieved by the reader in the form given. Such literal information may be the main idea, a set of specific details, or a sequence of events. Second, inference level. This level requires the readers understand the literal information from level one and go beyond it to hypothesize about relationship, unstated ideas, and connection between ideas or events. Third, evaluation level. It requires the reader to make judgements about the reading or to demonstrate the value. Fourth, appreciation level. It relates to the emotional responses of readers to a text. It also refers to the reader's awareness of the literacy and stylistic techniques used by an author to encourage a reader's emotional response.

According to McWhorten (1993), there are three levels of comprehension in reading a text. First, literal, what is actually stated. It includes facts and details, rote learning and memorization, and surface understanding only. Common questions used to illicit this type of thinking are who, what, when, and where questions. Second, interpretive, what is implied or meant, rather than what is actually stated. It includes drawing inferences, tapping into prior knowledge/experience, attaching new learning to old information, making logical leaps and educated guesses, and reading between the lines to determine what is meant by what is stated. The types of the tests in this category are subjective, and the types of questions asked are open-ended, thought-provoking questions like why, what if, and how. Third, applied, taking what was said (literal) and then what was meant by what was said (interpretive), and then extend (apply) the concepts or ideas beyond the situation. It includes analyzing, synthesizing and applying.

The Implementation of KWL Strategy in Reading Comprehension

There is a good amount of research investigating the effectiveness of instructional strategies for activating prior knowledge as a means to support students' reading comprehension. As a whole, the research base provides good evidence to support the use of prior knowledge activation strategies. Prior knowledge activation is regarded as a research-validated approach for improving children's memory and comprehension of text (Pressley & Johnson, 1989).

There are varieties of strategies for helping students to activate prior knowledge: (1) prior knowledge activation through reflection and recording, (2) prior knowledge activation through interactive discussion, (3) prior knowledge activation through answering questions, (4) computer-assisted activation of prior knowledge, and (5) prior knowledge activation through interpretation of topic-related pictures.

According to Ogle (1986), there are some steps that should be considered in using KWL strategy: (1) choose a text (narrative or expository texts), (2) create a KWL chart. The teacher should create a chart on the blackboard or on an overhead transparency. In addition, the students should have their own chart on which to record information, (3) ask students to brainstorm words, terms, or phrases they associate with a topic. The teacher and students record these associations in the *K* column of their charts. This is done until students run out of ideas. Engage students in a discussion about what they wrote in the *K* column, (4) ask students what they want to learn about the topic. The teacher and students record these questions in the *W* column of their charts. This is done until students run out of ideas for questions. If students respond with statements, turn them into questions before recording them in the *W* column, (5) have students read the text and fill out the *L* column of their charts. Students should look for the answers to the questions in their *W* column while they are reading. Students can fill out their *L* columns either during or after reading, (6) discuss the information that students recorded in the *L* column, and (7) encourage students to research any questions in the *W* column that were not answered by the text.

As the evaluation for the effectiveness, teachers can compare the students' scores on comprehension questions or skill sheets or reading tests before and after implementation of this intervention.

According to Lenski (2004), KWL strategy helps children become good readers by getting them to do many of the things that good readers do. This strategy gets children to read silently with comprehension. In addition, children relate new information to what they already know when they confirm or disconfirm the information in the *K* column.

Further, the children learn to set their own purposes for reading when they generate questions for the W column. Their reading to answer these questions helps them concentrate while they are reading as they more actively monitor their own comprehension.

The L column affords students the opportunity to summarize what they read. When they put the information in their own words, they better understand what they know and what they do not know. This helps them move into a possible next step which involves having them generate more questions and use a variety of resources to learn more information. Finally, taking this strategy into a publication step helps them organize the information and write it for presentation to others. This strengthens their learning of the information, involves them in doing what good readers do, and teaches them about their own reading processes.

Methods and Procedure

Design of Research

This study applied a quasi experimental. This design is often used in classrooms when experimental and control groups are such naturally assembled group as intact classes, which may be similar (Best and Kahn, 1993: 151). The research design is called *nonequivalent-groups pretest-posttest design* (McMillan, 1990: 178) because two groups of experimental and control were involved in this study.

Operational Definitions

KWL strategy was a reading strategy that was applied to the experimental group as the sample of this study. KWL strategy is a reading strategy that uses questioning to activate prior knowledge, to understand metacognition, and to write to learn. In the first step students, alone or with others, brainstorm *what they know* about the reading topic. Next, students write *what they want to learn* about the topic. In the last, students read the material and share *what they have learned*.

Students' reading comprehension achievement means the result of the Reading Comprehension test that was gained by the students in experimental group, after they received the treatment. The effect was measured by comparing the scores of pretest-posttest between the students who were on the control group and on the experimental group.

Subjects of the Study

The subjects of this study was the eightth grade students of SMP Negeri 4 Palembang. The total number of population was 405 students which comprising nine classes. The sample of this study was taken purposively, which was known as purposive sampling. There were 40 students at the same level (40 out of population) that was taken as sample. The researcher took two classes as the sample, where 20 students were taken from each class. They were given pretest and posttest. They were divided into two groups, 20 students for the experimental group and 20 students for the control group. The experimental group was taught by using KWL strategy, while the control group was not taught using KWL strategy.

Technique for Collecting the Data

In collecting the data, the writer used reading comprehension test. There were two tests, pretest and posttest that was given to the sample of this study. The test means examination or trial of something to find its quality, value, and composition. It is also something for measuring knowledge, intelligent, ability of an individual group (Hatch & Farhady, 1982:44). In constructing the test, the writer did some steps: (1) preparing the test. The test was in form of multiple choice reading comprehension test, (2) asking the expert judgement on the appropriateness. It was the judgement from the writer's advisors, (3) trying out the test. The writer did the try out at SMP Negeri 17 Palembang which had similar characteristic with the sample. (4) analyzing the result, whether or not it is valid and reliable, (5) producing the final test, (6) conducting the test.

Validity and Reliability of the Test

In designing the reading texts as the instrument of this study, the writer had measured the readability of the reading texts by using Flesch Kincaid formula. It was used to find out whether the reading texts were determine to the reading comprehension level of the sample. Before administering the instrument, the writer validated the items of the test, which is known as content validity. The researcher also found their reliability by trying it out at another school which had similar characteristics with the sample. The data from the Try Out were analyzed by using Alpha Cronbach. It was assumed that all of the questions were equally difficult.

The validity and reliability of the instrument are very important to determine appropriateness and usefulness of a measurement instrument. Validity is the degree to which correct inferences can be made on the basis of results obtained from an instrument. It depends not only on the instrument itself, but also on the instrumentation and the characteristics of the group studied (Ihsan, 1997).

From 60 items which were tried out, it is found that not all the items were valid. There were 8 items (13%) were very easy, 13 items (22%) were easy, 23 items (38%) were desirable, 10 items (17%) were difficult, and 6 items (10%) were very difficult. Based on the calculating above, the writer took 40 items which are valid as the instrument of the study.

In finding the reliability of the instrument, the writer used Alpha Cronbach formula. The reliability of the instrument was 0.840. It could be judged that the reading comprehension test was reliable, because the reliability coefficient of reading comprehension test obtained was more than 0.700.

Technique for Analyzing the Data

Quantitative data analysis is used in this study. The writer found out the means score. The writer also found out the significant differences within the groups and between the groups in terms of reading comprehension achievement. The writer also measured how much the contribution of KWL strategy in improving students' reading comprehension achievement using stepwise regression formula.

In finding the mean of the tests, the writer found out the normality of the pre-test and post-test, and the homogeneity of the test. Then, the writer found out the means score and standard deviation of the pre-test and post-test to see the difference. Finally, in comparing the means of the test, the writer used t-test in order to find out the difference between the means and decide whether those differences were likely to happen by chance or by treatment effect.

Result and Discussion

The Results of Reading Comprehension Test

Graphically, the total score of students pre-test and post-test in the experimental group can be seen on Figure 1, where it showed that the posttest score was higher than the pretest score. It meant teaching reading comprehension by using KWL (Know, Want, Learned) strategy could increase the students' reading comprehension score.

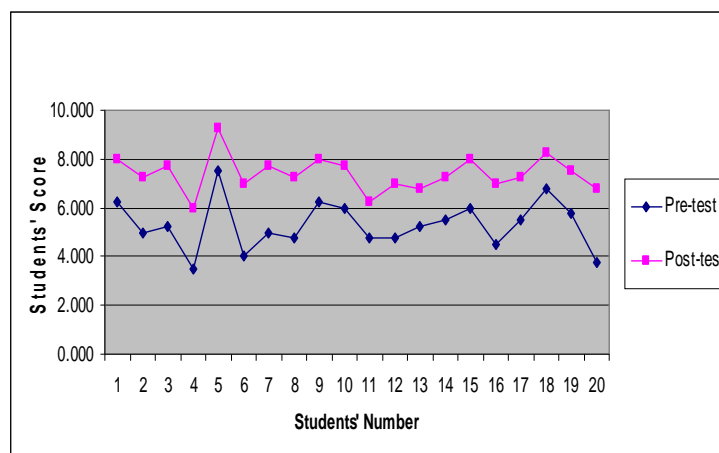


Figure 1: Graph for Pre-test and Post-test Scores in Experimental Group

Graphically, the total score of students pretest and posttest in the control group can be seen on Figure 2, where it showed that that the posttest score and the pretest scores were relatively the same. It meant the score of students' reading comprehension increased gradually.

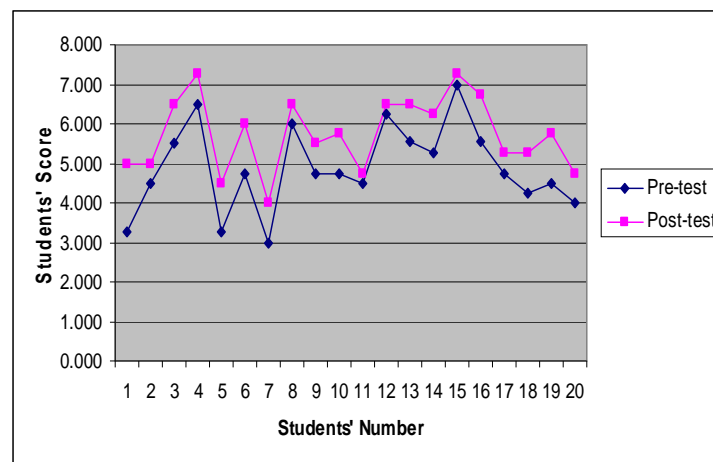


Figure 2: Graph for Pre-test and Post-test Scores in Control Group

Independent Sample t-test Analysis of Students' Reading Comprehension Achievement

In order to find out whether or not there was significant difference in reading comprehension achievement between the students who were taught by using KWL strategy and those who were not, the result of posttest scores of reading comprehension achievement in the experimental group and the control group were compared by using independent sample t-test.

Table 1: Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
| | | F | Sig. | T | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Post test | Equal variances assumed | 2,024 | ,163 | 6,228 | 38 | ,000 | 1,65000 | ,26495 | 1,11364 | 2,18636 |
| | Equal variances not assumed | | | 6,228 | 36,126 | ,000 | 1,65000 | ,26495 | 1,11273 | 2,18727 |

Based on the Table 1 above it showed that the value of t-obtained was 6.22 at the significant level 0.05 in two tailed testing with df was 38, where the critical value of t-table was 2.33. Since the value of t-obtained 6.22 was higher than the critical value of t-table (2.33), H_a was accepted and H_o was rejected. It means that there was significant difference in students' reading comprehension achievement who were taught by using KWL strategy and those who were not.

The Contribution of KWL Strategy on Students' Reading Comprehension Achievement

Tabel 2: The Contribuion of KWL Strategy on Students' Reading Comprehension Achievement

| Model | R | R ² | Percent of contribution | F | Significance |
|------------|------|----------------|-------------------------|--------|--------------|
| Experiment | ,778 | ,605 | 60,5% | 27,618 | ,000 |

Based on the obtained data from the table above , it was identified that the contribution of KWL strategy contributed 60.5 % and the unexplained factor contributed 39.5 % on students' reading comprehension achievement.

Interpretations of the Study

Based on the result of the study, the following interpretations are presented to strengthen the value of the study. First, the result of the study showed a statistically significant difference in reading comprehension achievement between the students who were taught using KWL strategy and those who were not. The mean score posttest of experimental group (2.100) was higher than the mean score posttest of control group (0.857). It was also assumed that KWL strategy gave significant contribution in improving students' reading comprehension achievement.

Second, KWL strategy contributed in improving the students' comprehension level and in achieving meaningful learning through activating previous knowledge related to the reading text. It gave the students an opportunity to find real conceptual relations and not random ones with those concepts previously made while building up a cognitive structure. Students were continuously active arranging and organizing what they had learned, in order to make hypothesis and predictions in relation to the text and its objectives. For this purpose, they used different intellectual processes such as: comprehension, interpretation, analysis, evidencing and eliciting in order to take appropriate decisions and accomplish their learning goals. The students actively build up knowledge. This knowledge helps them create a portrait for the world around themselves to support their new experience with a meaning and significance. Hence, KWL strategy also could improve the skill of teaching the students how to process the information; and how to think independently and effectively. Using KWL strategy in teaching matches with the course, material, and method, in terms of simplicity and complexity; as it copes with the students' abilities, acquisition of religious concepts and correction of substitutive concepts they might have got. Because reading comprehension is a meaning composition process, built up through a complementary addition of the information the text provides and the knowledge stored in the student's cognitive background. The way of students interpreting the text depends on the previous knowledge they have got. This evidences the significance of KWL strategy in enhancing the reading comprehension level within the students. This is what the results of this study proved. The group which studied the texts with KWL strategy surpassed the group that followed the traditional method. KWL strategy is considered effective in improving students' reading comprehension achievement and upgrading them; since it leads to activate previous knowledge within the students and leads to enhance the students' ability to interpret the reading material and adapt it as to cope with their cognitive background.

Third, most of the students were more interested and comprehended the texts where the topic discussed about the local culture. Eventhough, based on Flesch-Kincaid Grade level readability, the texts were quite difficult for the students' grade level, their reading score on local culture topic were higher compared to the texts that were comfortable for their grade level of readability. Its indicated reading texts which are difficult for the students' grade level did not guarantee that their can not comprehend the texts which known as "low level with high interest". It was concluded that as long as the students had high interest to the topic of the reading texts, eventhough quite difficult for their reading level, it will be easier for them to comprehend.

Conclusion and Suggestion

There was significant difference in reading comprehension achievement between the students who were taught by using KWL strategy and those who were not. Since they had been given the treatments, they could improve their reading comprehension achievement.

Based on the analysis of data gathered during the experiment and after the experiment, it could be concluded that the students could improve their reading comprehension achievement. Most of the students in the experimental group had better achievement in reading comprehension and were enthusiastic, active, and enjoy in comprehending reading texts by using KWL strategy. Their better achievement toward reading comprehension can be seen based on the scores of posttest were higher than the scores of pretest.

There was also an effect of using KWL strategy on students' reading comprehension achievement. It can be seen from the analysis of the means score within the groups and between the groups by using Stepwise Regression formula, where it is indicated that KWL strategy was effective in improving students' reading comprehension achievement.

Having applied KWL (Know, Want, Learned) strategy for about 16 meetings, the writer considered that it was a good strategy to be applied. In addition, this strategy helped students in understanding the reading material easily.

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