

Improving Students' Reading Comprehension by Using K-W-L (Know, Want to Know, Learned) Strategy

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Abstract

This study aimed to find out the impacts of the use K-W-L strategy in improving reading comprehension among the twelfth grade students of SMA Mandiri Palembang and to know whether there was a significant difference on reading comprehension between students who were taught using K-W-L strategy and those who were not. This study used quasi-experimental design with non-equivalent pretest-posttest design. The population of the study was the twelfth grade students of SMA Mandiri Palembang, and the sample was taken by using convenience sampling technique. The total number of sample was 54 students, 27 students belonged to experimental group and 27 students belonged to control group. In collecting data, the researcher used test. The test was given twice to experimental and control groups, as a pretest and posttest. The data of students' pretest and posttest were analyzed by using independent sample t-test and paired sample t-test in SPSS 22 program. The finding showed that the p-output from paired sample t-test 0.000 was lower than 0.05 and t-value 8.985 was higher than t-table with $df=26$ (1.705). Then, from the independent sample t-test showed that the p-output 0.000 was lower than 0.05 and t-value 5.022 was higher than t-table 1.674. Therefore, it can be concluded that there was a significant difference on students' reading comprehension achievement who were taught by using K-W-L strategy and those who are not at SMA Mandiri Palembang.

Keywords: K-W-L Strategy; Reading Comprehension; Twelfth graders.

A. Introduction

Reading is one of the most essential skills for learning a new language. Based on the national education department for curriculum 2006, it stated that writing, reading, listening, and speaking are the four primary English-language skills that students must acquire. Some activities of students in school are reading. Using textbooks, reading is actually an interactive learning process between students and teacher. Reading was an active process in which students require skills and practices in drawing meaning from written information (Tunmer and

Hoover, 2017). For academic purposes, reading is important because it is one of the most used language skills in everyday life (Ismail et al., 2017).

By reading, students will receive more information and it will enrich their vocabulary or knowledge, students can also teach others the information they have learned from reading. However, in order to obtain correct information and increase knowledge, students must comprehend all important parts of the text they read to find out the content and meaning. The ability to understand texts and interpret the information appropriately and correctly is called reading comprehension. Paris (2014) mentioned that comprehension as a strategy in which reader uses some clues in the text to create meaning of it, then connect to their own prior knowledge.

A preliminary study was conducted at SMA Mandiri Palembang by conducting an informal interview with one English teacher. From the teachers' explanation, English learning activity at school was mostly done by reading text. Besides that, the researcher also looked at the teachers' lesson plan to find out the teaching method that is usually used by the English teacher in teaching reading comprehension. From the teachers' lesson plan, the researcher found that reading aloud is the method used in teaching reading comprehension. Zuraini et al. (2020) stated that reading aloud is a reading activity that involves pronunciation, intonation, pitch, or stress to express writers' message. However, this would be a problem for students who have low knowledge. Students tended to pay more attention to their pronunciation than the information in the text. It is difficult for students to understand the text while reading since reading aloud is not comprehension process. On the other hand, according to Kendeou et al. (2014), comprehension is a process in which readers construct meaning by involving background knowledge and connecting it with new information of the text to be read using reading skills. In this case, the researcher offer a strategy namely the KWL strategy that might be able to help the teachers and students problem.

K-W-L was an acronym of "*know, want to know, and learned*" (Maxfuza & Nozimaxon, 2022). K-W-L is a good strategy for improving students' reading comprehension. K-W-L strategy involves K-W-L chart for students to explore and connect their prior knowledge about text to be read. K-W-L strategy was the appropriate way to overcome students' weaknesses in understanding reading material, finding out main ideas, supporting ideas and important pieces of information after reading activities (Suciani et al., 2022). Different from teaching method (conventional strategy) that usually used by the English

teacher. At the first teaching step of using K-W-L strategy, the teacher invites students to discuss and activate their prior knowledge regarding text to be read by writing what they know in column K to get an overview. At the second teaching step, students write down questions related to what they want to know from text in column W. And finally, after reading with comprehension, students write what they have learned or read in column L. Based on the explanation above, the researcher assumed that the K-W-L strategy could be used in teaching reading comprehension at SMA Mandiri Palembang.

There were several studies which investigated regarding the impact of using K-W-L strategy on students' reading comprehension such as Fajri et al. (2019) that implementing K-W-L strategy to the tenth-grade students; Made (2021) implementing K-W-L strategy to the tenth-grade students; Nirwan (2020) implementing K-W-L strategy to the English department students in the second semester; Riswanto et al. (2014) implementing K-W-L strategy to the eighth-grade students; Rusmiati (2017) implementing K-W-L strategy to the eleventh-grade students; Sholeh et al. (2020) implementing K-W-L strategy to the eighth-grade students; Taheri & Mohamadi (2015) implementing K-W-L strategy to the first-grade high school students; and Wulandari (2017) implementing K-W-L strategy to the eighth-grade students. The result of these previous studies have showed that the K-W-L strategy could improve students' reading comprehension achievement.

Based on explanations from previous related studies above, it can be seen that no researchers have applied the KWL to the twelfth graders where the type of text taught are news items and procedures. As stated in Curriculum 2013 (K-13) used by the twelfth grade senior high school mentions that reading standard competence for students are able to comprehend and analyze the meaning of news item texts and procedural texts, which are functional texts related to the surroundings to gain the knowledge. Therefore, the researcher is interested in examining how the effect of the KWL strategy on the learning process to the twelfth grade level of high school.

The following question was used to formulate the research problem based on the introduction:

1. Was there any significant improvement on students' reading comprehension before and after being taught using the K-W-L strategy in the experimental class at SMA Mandiri Palembang?

2. Was there any significant difference in the twelfth grade students' reading comprehension between those who were taught by using K-W-L strategy and those who were not at SMA Mandiri Palembang?

The following are the objectives of this study based on the problems listed:

1. To find out whether or not there was significant improvement on the twelfth grade students' reading comprehension before and after being taught by using the K-W-L strategy at SMA Mandiri Palembang.
2. To find out whether or not there was a significant difference on the twelfth grade students' reading comprehension between those who were taught by using the K-W-L strategy and those who were not taught by using K-W-L strategy at SMA Mandiri Palembang.

B. Research Methodology

Research Design

In this study, the researcher used experimental research method. Among existing experimental designs, the researcher chose quasi-experimental design. Quasi-experimental design was used because it is suitable for social research where the subjects involved cannot be regulated by the researchers (Rogers & Revesz, 2020). Quasi-experimental studies include a comparison group. The experimental group (EG) and control group (CG) were the two groups involved in this study. According to Price et al. (2015), in educational research, one of the most commonly used quasi-experimental designs was the nonequivalent pretest-posttest group design.

Population and Sampling

The population of this study was the twelfth grade students of SMA Mandiri Palembang. In determining the sample, the researcher used convenience sampling technique. Berger (2018) stated that in convenience sampling, participants are selected because they are available and ready to become participants in the study. Therefore two classes were chosen as the samples, they were XII IPS 1 class and XII IPS 2 class. Based on the result of students' pretest score, XII IPS 1 got score slightly higher than XII IPS 2. Therefore, XII IPS 1 as a control group and XII IPS 2 as an experimental group. They were 54 students in total.

Table 1

The Sample of the Research

No	Class	Group	The Number of Students
1	XII IPS 1	Control Group	27
2	XII IPS 2	Experimental Group	27
Total			54

Data Collection

The data were collected in three parts of activities. They are pre-test, treatment and post-test. Pretest consisted of a set of reading comprehension test that will be given to experimental group (EG) and control group (CG) before giving some treatments. Treatment was conducted after pretest. In this treatment, the researcher applied the K-W-L strategy to the experimental class. This study conducted in 10 meetings with 2 meetings for pretest and post-test. Therefore the total meeting was 12 meetings. The researcher gave different topics in every meeting with duration of each meeting was 90 minutes. The material used was taken from students' English textbooks where in the syllabus the types of texts taught to twelfth grade students were news item text and procedure text. Post-test was a test given at the end of some treatment period. The type of post-test item is the same as the pretest.

Data Analysis

The collected data would be analyzed to determine more effective techniques toward students reading comprehension, whether the experimental group outperformed the control group in terms of reading comprehension achievement of the twelfth graders at SMA Mandiri Palembang. In analyzing the data of students' pretest and post-test obtained through quasi experimental design, it is calculated by statistical analysis using the t-test formula in SPSS 22 program. The researcher used paired sample t-test and independent sample t-test. Paired sample t-test was used to find out whether there was a significant improvement on students' reading comprehension achievement after taught by using K-W-L strategy, and independent sample t-test was used to compare the students' posttest score between students who were taught by using K-W-L strategy and those who were not. The three stages of analysis were carried out: Descriptive Statistics, Prerequisite Analysis (Normality and Homogeneity Test), and Hypotheses Test.

C. Results and Discussion

1. Results

a. Students' pretest and posttest score in experimental group

The result analysis of descriptive statistics of students' pretest and posttest in experimental group was described in table 2:

Table 2

Descriptive Statistics of Students' Pretest and Posttest Score in Experimental Group

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest EG	27	27	73	44.30	12.624
Posttest EG	27	53	87	71.33	9.013
Valid N (listwise)	27				

In descriptive statistics on students' pretest and posttest scores in experimental group above, it was found that the total number of sample was 27 students. From the pretest score, the minimum score was 27, the maximum score was 73, the mean score was 44.30, and the score of standard deviation was 12.624. Meanwhile, from the posttest score the minimum score was 53, the maximum score was 87, the mean score was 71.33, and the score of standard deviation was 9.013.

b. The normality test of students' pretest and posttest score in experimental group

The computations of normality were used in SPSS 22. The result of analysis is described in table 3.

Table 3

The Normality Test of Students' Pretest and Posttest Scores in Experimental Group

No	Experimental Group	N	Kolmogorov Smirnov	Result
1	Pretest Experimental	7	0.200	Normal
2	Posttest Experimental	7	0.152	Normal

After the data obtained from the scores of the 27 students in experimental group, it was found the p-output from students' pretest scores in experimental group was 0.200 and students' posttest in experimental group was 0.152. From the result of the p-output, it can be stated that the students' pretest and posttest in experimental group were considered normal since they were higher than the significance level 0.05.

c. Homogeneity test of students' pretest and posttest scores in experimental group

The result of homogeneity test of students' pretest and posttest scores was described in table 4.

Table 4

The Homogeneity Test of Students' Pretest and Posttest Scores in Experimental Group

No	Students' Scores	N	Sig.	Result
	Pretest and Posttest Experimental	7	0.082	Homogenous

d. Result analysis of paired sample t-test in experimental group

The analysis result of paired sample t-test was figured out in table 5

Table 6

Result Analysis of Paired Sample T-Test from Students' Pretest to Posttest Scores in Experimental Groups

Before and After Taught Using K- W-L Strategy at SMA Mandiri Palembang	Paired Sample t-Test			Ha
	T	Df	Sig. (2- tailed)	
	8.985	26	0.000	Accepted

Based on the table analysis, it was found that the value of sig. (2-tailed) is 0.000 with $df=26$ (1.705), and t -value = 8.985. Since p-output was lower than 0.05 and the t -value was higher than t -table $df= 26$ (1.705). It can be stated that the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_a) was accepted. Therefore, it was concluded

that there was a significant improvement from students' pretest to posttest scores in experimental group taught by using K-W-L strategy at SMA Mandiri Palembang.

e. Independent sample t-test on student's posttest scores

The analysis result of independent sample t-test was figured out in Table 7

Table 7

Result Analysis of Independent Sample T-Test from Students' Posttest Scores in Experimental and Control Groups

Using K-W-L Strategy and Teacher's Method at SMA Mandiri Palembang	Independent Sample t-Test			Ha
	T	df	Sig. (2-tailed)	
	5.022	52	0.000	Accepted

Based on the table analysis, it was found that the value of sig. (2-tailed) was 0.000 and the t- value was 5.022. Since the p-output was lower than 0.05 and the t-value was higher than t-table (df 52= 1.674). It can be stated that the null hypothesis (Ho) was rejected, and the alternative hypothesis (Ha) was accepted. Therefore, it was concluded that there was significant difference on students' reading comprehension scores taught by using K-W-L Strategy at SMA Mandiri Palembang.

2. Discussion

First, there was a significant improvement on students' reading comprehension after taught using K-W-L strategy. In the experimental class, the researcher conducted K-W-L strategy to help students with their problem in reading comprehension by using some steps. K-W-L strategy gave an improvement on students reading comprehension. In practice, the use of K-W-L chart help students to preview the material and evaluate their own comprehension by recording. This is related to Evans (2020) who stated that the K-W-L chart assists students in compiling the information obtained from before reading, during reading, and after reading a lesson.

This strategy involved three stages in teaching reading. First, by doing the K step, students was encouraged to think and activate their prior knowledge about a topic or an issue in order to get an overview and write everything they know about the text to be read: this is supported by Riswanto (2014) that the K step involves student to connect text with their prior

knowledge. Next, by doing the *W* step, students wrote what they want to know related to the text. This step gave a positive attitude for students to set their reading goals and increase their enthusiasm about the text to be read: this is supported by Hana et al. (2020) that this strategy could improve students' motivation to read a text. Finally, by doing the *L* step, students could monitor and evaluate their comprehension: this is supported by Maulida and Gani (2016) that *K-W-L* strategy allows student to evaluate their understanding.

Second, *K-W-L* strategy could build a good interaction between students and teacher or between students themselves as it is stated by Dieu (2015). *K-W-L* strategy involves an active interaction between teachers and students in a discussion starting from pre-reading, whilst, and post-reading activities. There were also some students who share their knowledge or everything they know about a topic or an issue to their friends.

Third, *K-W-L* strategy using a simple graphic organizer namely *K-W-L* chart. This is supported by Taheri and Mohamadi (2015) who stated that the *K-W-L* chart is one of the simple reading strategy for organizing student to think an issue or a topic. When the researcher did the treatment in the experimental group. The students were more interested and active during reading text process by using *K-W-L* (know, want to know, learned) chart. After the researcher explained and gave an example of how to fill the *K-W-L* chart, it was seen that students could immediately understand and were able to fill the *K-W-L* chart properly.

Finally, it was discovered that there was a significant difference between the students' pretest scores and their post-test scores when they were in either the experimental or the control group. The students in the experimental group were instructed with the *K-W-L* strategy, whereas the students in control group were instructed by a strategy that usually used by the teacher. The students in the control group also had an improvement in their reading comprehension achievement, but it was not nearly as significant as the change seen in the experimental group.

Based on the result of the study related to the implementation of *K-W-L* strategy in teaching reading comprehension. This result supported and strengthened the results of previous studies conducted by (Fajri et al., 2019; Made, 2021; Nirwan, 2020; Riswanto et al., 2014; Rusmiati, 2017; Sholeh et al., 2020; Taheri & Mohamadi, 2015; and Wulandari, 2017). First, *K-W-L* strategy is an effective strategy to teach reading comprehension which shows an improvement in students' reading achievement. Second, the implementation of *K-W-L* strategy also showed a significance difference on students' reading comprehension

achievement when compared to the implementation of teaching method that is usually used by the teacher.

D. Conclusion and Suggestion

Based on the findings and interpretations of the study on the use of the K-W-L strategy in improving students' reading comprehension, the researcher concluded that the K-W-L strategy is an effective strategy in teaching reading comprehension. This study showed a significant improvement on students' reading comprehension achievement after taught by using K-W-L strategy. And then, this study also showed that there was a significant difference on students' reading comprehension achievement between the students who were taught by using K-W-L strategy and those who were taught by using method that is usually used by the teacher.

After conducting this study, the researcher proposed some suggestions that would be useful for teachers and other researchers who are interested in using K-W-L Strategy to improve students' skills in reading text in their study or teaching. First, based on the previous related studies. The further researcher could try to apply this K-W-L strategy at different class levels with different types of text as well. Second, this study also did not include the level of reading comprehension, to find out the reading level of students after being taught using the K-W-L strategy, this can be added in future research. Finally, reading comprehension instruction should be well-planned from the very beginning, because it is the most important step in the reading process to support students' comprehension of the content by record them in a systematic way.

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