

# The Effect of Implementing KWL and QAR Strategies on Students' Reading Comprehension with Different Motivation

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**Abstrak: Pengaruh Penggunaan Strategi KWL dan QAR pada Kemampuan Membaca Siswa dengan Motivasi yang Berbeda.** Penelitian ini bertujuan untuk mengetahui pengaruh pembelajaran KWL dan QAR terhadap motivasi siswa dalam membaca. Metode menggunakan rancangan desain faktorial 2x2. Populasi berjumlah 216 siswa, 72 siswa sebagai sampel dengan Random Sampling. Data menggunakan kuisioner motivasi dan tes membaca dengan ANAVA dua jalur. Hasil diperoleh: (1) hasil belajar membaca siswa yang menggunakan QAR= 85.33 lebih tinggi dibandingkan dengan KWL= 77.56,  $t_{hitung} 7.837 > t_{tabel} = 1.67$ , (2) Hasil membaca siswa yang memiliki motivasi tinggi = 83.67 lebih tinggi dibandingkan yang memiliki motivasi rendah = 79.22,  $t_{hitung} 3.551 > t_{tabel} = 1.67$ , dan (3) terdapat interaksi antara strategi mengajar dan motivasi,  $F_{observasi} = 4.670 > F_{tabel} = 3.98$ . Siswa bermotivasi tinggi memperoleh hasil lebih tinggi dengan KWL, sedangkan bermotivasi rendah mendapat nilai lebih tinggi dengan QAR.

*Abstract: The Effect of Implementing KWL and QAR Strategies on Students' Reading Comprehension with Different Motivation. This study was intended to examine the implementation of KWL and QAR strategies on students' motivation in reading comprehension. The research used an experimental research with factorial design 2x2. The population was 216 students. The sample were 72 students with Random Sampling technique. The data were collected through motivation questionnaire and reading test and analyzed by using Two-Way ANOVA. The finding showed: (1) the students' reading comprehension who were taught by QAR strategy was 85.33 higher than those who were taught by using KWL strategy was 77.56 with  $t_{count} = 7.837 > t_{table} = 1.67$ , (2) the students having high motivation was 83.67 higher than low motivation was 79.22 with  $t_{count} = 3.551 > t_{table} = 1.67$  and (3) there was interaction between teaching strategies and motivation on students' reading comprehension,  $F_{observed} = 4.670 > F_{table} = 3.98$ . The students having high motivation got higher scores if they were taught KWL strategy, while students having low motivation got higher scores if they were taught QAR strategy.*

**Keywords:** KWL, QAR strategies, motivation, reading comprehension

## INTRODUCTION

Reading is one of the important skills that can enrich people with knowledge and the key to education. People need to read any literatures related to any fields of study. In Junior High School, the purpose of reading activity is the students are expected to be able to respond the meaning and the steps on short simple essay as accurate, fluent and appropriate to interact with the environment. (Depdiknas, 2006). It means that the students need to have a good reading skill in English.

Therefore, reading skill needs to be fostered so that students can understand the texts and tasks more sophisticatedly, and deal with the texts efficiently, quickly, appropriately, skillfully, and high comprehension. The strategy is one of the important things in the process of reading. As supported by Nunan (2003), "reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning". We use strategies to decode written forms in order to arrive at meaning.

Chastain (1988), states that reading skill like other language skills is a process in which individuals activate their background knowledge in order to exchange information from one person to another. In other words, the readers consider reading materials and combine their background knowledge and skills in order to understand the meaning of written materials. Related to the explanation above, the readers have to have good comprehension to obtain message or

information from the materials he or she reads. For that, he or she must equip him/herself with reading skills.

Nyoman & Nyoman (2013) identified two factors to understand the text: the inside factors include students' learning motivation, age, aptitude, and learning style. The outside factor is related to the teacher's techniques which are used to create good classroom atmosphere. Furthermore, motivation has an important role upon the student's learning activity. As Frandsen cited in Uniroh (1990) said that motivation as internal condition arouses, directs, sustains, and determine the intensity of learning afford, and also defines the satisfying or unsatisfying consequences of goal.

The success of teaching reading will affect students' reading skill, and can motivate to learn, and focus in the process of learning. One of the instructional reading strategy is Know-Want-Learned (KWL) strategy (Fengjuan, 2010:1). KWL is one of the most widely recognized graphic organizers and instructional strategies developed by Donna Ogle in 1986, uses three columns chart namely KWL Chart: K column is used to record students' background knowledge, W column to record students' prediction, and L column to record students' summary or conclusion about one topic. So, this strategy is able to capture components of teaching and learning process on before, during and after reading.

Through KWL the students will be directed to activate their background knowledge related to the text or theory being discussed. Then,

the students were also asked to predict or ask more about what he/she want to know more about the related topic. This way will guide the students to focus and to know what is his/her purposes on reading. Finally, the students will be asked to conclude or summarize about what they already got from the text. This is the way the students will reflect what they have already learned through the text and evaluated their own reading skill by reviewing the information that they got from their reading. By applying KWL strategy, the activities will not only help the students to improve their reading comprehension, but also will lead the students to improve their reading comprehension achievement.

Meanwhile, Question-Answer Relationship (QAR) proposed by Raphael (1986) aimed at improving students reading comprehension skill. It helps students realize that the answers they seek are related to the type of questions that are asked but encourages them to be strategic readers. Conner (2006) states QAR teaches students three comprehension strategies: reading the lines, by which students obtain information explicitly, reading between the lines, by which the students discover implicit meaning of text, and reading beyond the lines, where by students interpret text in terms of their own personal value. QAR strategy has three kinds of questions; Right There, Think and Search and On My Own. In Right There, the answer is explicitly found in the text and it is easy to find. It means that the words used to make the question and the words that make the answer in Right There, in the same sentence. In Think and Search,

the answer is in the story, but a little harder to find. The students would never find the words in the questions and words in the answer the same sentence but they would have to Think and Search for answer in their heads.

Both KWL and QAR acquire the concepts of meta-cognition theory. The theory emphasizes the importance of two components in facilitating reading comprehension; knowledge and regulation. They include planning activities, awareness of comprehension and task performance, and evaluation of the efficacy of monitoring processes and strategies. In other words, when the students are taught reading comprehension by using KWL and QAR strategies, they are regarded as self-regulated learners who set goals for extending knowledge and sustaining motivation.

Based on the researcher's observation at SMPN 1 Natar Lampung Selatan, the teachers' techniques to teach reading often make the students get bored and less motivated to join the instructional activity. Consequently, during the instructional activity, most of the students are noisy and they don't interest in the material of reading. This condition may be one of the reasons why students' reading comprehension is low. The students still got difficulties in answering their reading comprehension questions such as understanding the content of the paragraph, difficulties in understanding the content, idea and determining the main idea of the paragraph, unable to response when they are asked questions and they come to reading class reluctantly. All

of the facts above indicated the class is not an inspiring class.

Beside that, it was found that the major achievement of students in reading comprehension were still under Minimum Passing Grade Criteria (KKM= *Kriteria Ketuntasan Minimal*) is 72. The result showed that the mean score of the students' achievement in reading comprehension was very low. While, according to the English teacher, students who had low motivation activity would consider reading activities as a burden or compulsion from the teacher, this paradigm caused them having lack of reading skill as negative motivation toward reading activity itself. As the teacher's strategy in teaching reading skill influences the students' reading motivation toward English and also influences the students' achievement.

Based on those explanations above, the purposes of this research are:

1. To find out whether there is any different achievement of students' reading comprehension based on the teaching strategies (KWL and QAR)
2. To find out the different levels of motivation of two groups, KWL and QAR have different reading achievement.
3. To find out whether there is any interaction between teaching strategies, and motivation on students' achievement in reading comprehension.

## METHODS

An experimental design was used in this research, two classes involved in this research: experimental 1 and experimental 2. In the process of teaching, the differences between experiment class and control class were only about the strategy used. The experiment 1 was taught by using Know Want Learned (KWL) strategy while the experimental II was taught by using the QAR strategy. In this research, students' motivation was included as a moderator variable, so specifically this research used factorial designs 2x2. So, the teaching strategies were the first factor, while the students' motivation toward reading was another factor. As there were two strategies of teaching reading (KWL and QAR) strategy, and the students' motivation toward reading comprehension also classified into high and low motivation.

The population was the ninth grade students, which consisted of 6 classes, each class consists of 36 students. Then, through *random sampling*, IXB class as the experimental class 1 and IXD as the experimental class II. Furthermore, there were two instruments which used in this research, namely: reading comprehension test, and students' motivation questionnaire. Questionnaire was used to know students' motivation in reading comprehension. The researcher adapted students' motivation questionnaire by Abin Syamsudin Makmun (1983). From the indicators of students' motivation questionnaire, there were 30 questions used. While for the reading comprehension test was used for

measuring the student's reading material given. In this research multiple choices form of test was used, specifically for report text. There were 25 items of questions for the test. In analyzing the data, statistical analysis was used in order to identify whether the students' reading test achievement of experimental class was significantly different from the control class. After the data collected, the normality test, the homogeneity test, and the hypotheses test would be analyzed. An interaction between both independent variables toward dependent variable were proven by using F-observed analysis. Hypothesis 1 and 2 were analyzed by using independent t- test by using two ways ANOVA.

## RESULTS AND DISCUSSION

The result of the statistical analysis of the hypothesis testing showed that the students who were taught by QAR strategy got significant better reading comprehension rather than those who were taught by KWL strategy. The details of data can be seen on the following table:

1. The first hypothesis showed that the score of students' reading achievement test which was taught through QAR strategy was significantly higher than KWL strategy. There is significant score (sig.)  $0.00 < 0.05$ , so  $H_0$  is rejected and  $H_1$  is accepted, it means there is difference in reading comprehension learning outcomes, between KWL and QAR strategies. The

average score of reading comprehension taught by QAR strategy is 85.333 higher compare to KWL is 77.556. It can be seen on the following table:

**Table 1. Difference of Mean Scores Using KWL and QAR Strategies**

Group Statistics					
Strategy		N	Mean	Std. Deviation	Std. Error Mean
Posttest dimension1	QARs	36	85.3333	3.31231	.55205
	KWL	36	77.5556	4.94798	.82466

**Table 2. Result of Students' Reading Comprehension of QAR and KWL Strategies**

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
Posttest	Equal variances assumed	6.914	.011	7.837	70	.000	7.77778	.99239	5.79832	9.75703
	Equal variances not assumed			7.837	61.123	.000	7.77778	.99239	5.79346	9.76210

Based on the Table 2, the results of analysis obtained  $t_{\text{value}} = 7.837$ , while  $t_{\text{table}} = 1.67$ . The value of  $t_{\text{count}} (7.837) > t_{\text{table}} (1.67)$ , so it can be concluded that there are differences in reading comprehension between QAR and KWL. The average score of students' reading comprehension using QAR is 85.333 higher than the average students' reading comprehension using KWL strategy is 77.556

2. The second hypothesis showed that the score of students' reading achievement with high motivation was significantly higher than students having low motivation, the significance score (sig.)  $0.000 < 0.05$ , so  $H_0$  is rejected and  $H_1$  is accepted, there is difference in average reading comprehension outcomes

between high and low students' motivation. The average score of students having high motivation 83.667 is higher compared to the students having low motivation is 79.22. It can be seen on the following table:

**Table 3. Difference of Mean Score Students' Reading Comprehension Achievement having High and Low Motivation**

Group Statistics					
	Motivation	N	Mean	Std. Deviation	Std. Error Mean
Reading Comprehension Achievement	High	36	83.6667	4.81664	.80277
	Low	36	79.2222	5.76250	.96042

**Table 4. Result of Students' Reading Achievement between High and Low Motivation**

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
Reading Comprehension Achievement	Equal variances assumed	3.181	.079	3.551	70	.001	4.44444	1.25174	1.94794	6.94095
	Equal variances not assumed			3.551	67.864	.001	4.44444	1.25174	1.94655	6.94234

As shown in Table 4, the analysis results obtained  $t_{\text{value}} = 3.551$ , while  $t_{\text{table}} = 1.67$ . The value of  $t_{\text{count}} (3.551) > t_{\text{table}} (1.67)$ , so it can be concluded that there is differences in reading ability between high and low motivation. The average scores of students having high motivation 85.67 is higher than the average students having low motivation is 79.222

- The third hypothesis showed that there is relative interaction between both teaching strategies and students' motivation toward students' reading comprehension achievement.

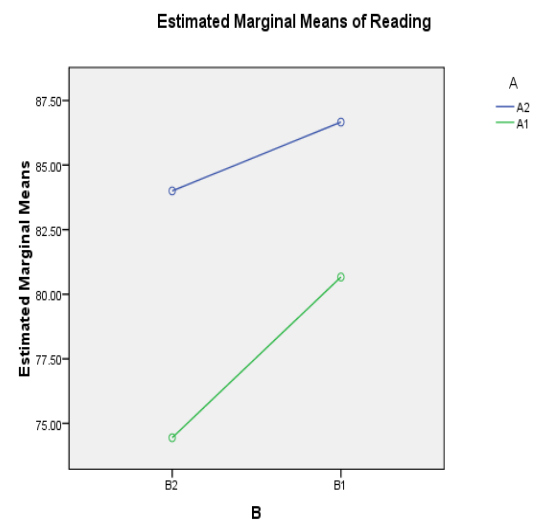
It can be seen on the following table:

**Table 5. Result of Two-way ANOVA**

Tests of Between-Subjects Effects					
Dependent Variable: Reading comprehension achievement					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1501.333 <sup>a</sup>	3	500.444	41.077	.000
Intercept	477590.222	1	477590.222	3.920E4	.000
A	1088.889	1	1088.889	89.378	.000
B	355.556	1	355.556	29.185	.000
A * B	56.889	1	56.889	4.670	.034
Error	828.444	68	12.183		
Total	479920.000	72			
Corrected Total	2329.778	71			

a. R Squared = .644 (Adjusted R Squared = .629)

As seen in Table 5, the score of  $F_{\text{observed}}$  of interaction was 4.670 and  $F_{\text{table}}$  at level of significance  $\alpha < 0.05$  was 0.034. Since  $F_{\text{observed}} > F_{\text{table}}$ , it is clear that the null hypothesis ( $H_0$ ) was rejected. So, the third hypothesis formulated there is relative interaction between teaching strategies and students' motivation. The interaction between teaching strategies and motivation can be presented in the following figure:



It was also proved when it was figured in a chart, that there were two ordinal lines which have different position. It indicated that in order to improve students' reading achievement could be done through applying QAR strategy, there is relative interaction between teaching strategies (KWL and QAR) and motivation on students' achievement in reading comprehension. So, it can be inferred that students with high motivation are suitable to be taught by using QAR strategy, while students with low motivation are suitable to be taught by using KWL strategy.

Theoretically, Ogle (1986) asserted that KWL strategy activate students' prior knowledge, retrieve information from the text, interpret the text, reflect and create personal knowledge. Activating, prior knowledge and interpreting the text were achieved by the students when they filled K (Know) column with their own knowledge on the topic before reading the text. Then, reflecting their own personal knowledge was achieved by the students when they were asked to fill W (want) column with their expectations in terms of what they wanted and needed to know about the topic before reading the text. After that, retrieving information and creating personal knowledge were achieved when the students were asked to fill L (Learnt) column with their current knowledge and information after reading the text.

Based on the findings of research which was conducted by Roozhkoon *et. al.* (2013), both teachers and learners did not have any knowledge about the mentioned pre-reading strategy. Although the researcher trained the instructors and explained the strategy for learners but it was better if they were experienced in using the strategy. The results of this study referred to the importance of reading strategies and their impacts on students' performances in reading classes. Reading strategies could be considered as a means of giving an opportunity to EFL learners to promote their ability in class participation through applying KWL charts process. The students learn to plan before starting to read. Therefore, it was one way to instruct students should some responsibility and become more active throughout learning process.

QAR strategy, theoretically, according to Raphael (1986) improved the levels of understand, create responses, activate prior knowledge, and integrate information. Levels of understanding of students were improved when they passed three stages: Right There, Think and Search, and On My own. In Right There stage, students read the lines to achieve literal comprehension. In Think and Search stage, students read between the lines to achieve inferential comprehension. The last, in On My Own stage, students read beyond the lines to achieve critical comprehension. Creating response was achieved by the students when they were asked to identify the answer for each question and discuss their relationships. The last activating prior knowledge was

achieved by the students when they were asked to integrate information from the text and collaborate that information with their own knowledge in understanding the text.

Although both strategies, theoretically, has the same final intention to achieve good reading comprehensions, but they have different ways in enhancing students' achievement during the process of reading a text. In KWL strategy, the process of activating prior knowledge occurs in the beginning (before the students read the text), while in QAR strategy, the process of activating prior knowledge occurs at the last phase (after the students read the text). Theoretically, both strategies treated the students to be active and independent readers while QAR treats the students to be passive and dependent readers. Empirically, both strategies have different phenomenon.

During QAR strategy, the students were not very enthusiastic because they have already known all information and knowledge they needed and wanted to know when they read the text at the first session, then followed by an activity finding out the relationship between questions and the answers. Students' prior knowledge is only provoked when the students met critical questions. That's why in KWL strategy, the students were still be passive although the topic that has been chosen by the teacher is very interesting. Briefly QAR strategy pays more attention to the process of reading comprehension while KWL strategy pays more attention to the product of reading comprehension.

Based on the findings, the students' achievement in reading comprehension taught by using QAR strategy is higher than KWL strategy (the mean score of students' reading comprehension taught by using QAR is 85.33 while the mean score of students' reading comprehension taught KWL is 77.56. However, what the researcher has found in this study was very far from the greatness of theory KWL and QAR, the mean score of a group taught by using QAR strategy will reach 90 and by using KWL strategy will reach 85. Finally, it can be inferred that QAR strategy has more advantages on students' reading comprehension achievement than KWL strategy. So, the first hypothesis that students' reading comprehension achievement taught by using by QAR strategy is higher than taught by using KWL is proven in this research.

Based on the second hypothesis, reading comprehension achievement of students having high motivation is higher than those having low motivation. Motivation can be stimulus for someone to do an act that is a change of power in someone itself which is signed by emerging, feeling and reaction to achieve the purpose through ability deciding the act to be reached. Students' motivation naturally has to do with students' desire to participate in the learning process and affect the students' achievement in reading comprehension. The influence factors in developing of students' motivation, according to Brophy (1987), motivation to learn is a competence acquired through general experience but stimulated most directly through modeling, communication of expectations, and



direct instruction or socialization by significant others (especially parents and teachers).

Empirically, students with high motivation were more active in learning and more enthusiastic with the tasks given by the teacher. During the treatment, it was shown that the students having high motivation were more addicted to read any information presented in the text without getting bored to identify main ideas and subsidiary ideas found in the text. On the contrary, the students with low motivation were reluctant to read the text comprehensively, they had plain desire to search the information presented in the text and they had less attempt to speculate on the information they wanted and needed to know. During the treatment, the students with this condition can be easily identified. Usually, the students with low motivation gave less attention to the learning and teaching process and cannot complete the task given by the teacher considerably.

However, students with low motivation may altered to high motivation during the process of teaching strategies were applied. This impression was aroused because during the treatment, it was found that the students taught attractively by new teaching strategies with series of personal and collaborative tasks (through KWL and QARs), the students were really enthusiastic although not all of them got good scores. This condition implied that external factors such as teaching and learning atmosphere or interaction between teachers and students may also affect the stability of motivation.

The second hypothesis that students' achievement in reading comprehension having high motivation is higher than those having low motivation is proven, it is found that the mean score of students having high motivation is 83.67 while the mean score of low motivation is 79.22 with  $t_{\text{value}} = 3.551$ ,  $t_{\text{table}} = 1.673$ , while  $t_{\text{count}} = 3.551 > t_{\text{table}} = 1.67$ .

The result of the third hypotheses indicates that there was relative difference on the interaction between teaching strategies (KWL and QAR) strategy to the result of students' reading comprehension. The result of two-way ANOVA found there is significant interaction between teaching strategies and motivation on students' achievement in reading comprehension with  $F_{\text{observed}} = 4.670 > F_{\text{table}} = 3.98$  at level of significance  $\alpha < 0.05$  after T-test is done (6.712). It means that students having high motivation get higher scores if they are taught by using KWL strategy.

The result of statistic was used to know which sample interaction has better achievement in reading comprehension among others. The mean of group having high motivation 83.67 while the mean of group having low motivation is 79.22 with  $t_{\text{count}} = 3.551 > t_{\text{table}} = 1.67$  at level of significance  $\alpha < 0.01$ , indicated that the students taught KWL and QAR strategy had significant difference among others. QAR strategy was applied to students with low motivation while KWL strategy applied to students with high motivation. The identification of students' motivation can determine the teachers in deciding what efforts they will do to

make the students pay more attention when they are teaching reading comprehension. So, understanding that students have different motivation the key to success in teaching reading comprehension since the teachers can choose which strategy more suitable to apply in the classroom. This research reveals that there was significant interaction between teaching strategies and motivation on students' achievement in reading comprehension. It implies that any teaching strategy applied by the teacher should be related to the levels of students' motivation

## CONCLUSION

The students with high motivation who were taught by KWL strategy has significantly higher reading comprehension than the students with high motivation who were taught by QAR strategy. While, the students with low motivation who were taught by KWL strategy do not have significantly higher reading comprehension than the students with low motivation who were taught by QAR strategy.

## SUGGESTIONS

Referring to the conclusion of the research, some suggestion could be given. First, it is suggested that English teachers are recommended to use KWL and QARs strategy because both strategies can improve students' reading comprehension achievement. The teachers should be very creative to stimulate students' motivation in order that the students have great desire in learning and completing the tasks and activities during learning.

Other researcher can develop further study in the area of KWL and QARs strategies in order to improve students' achievement in reading comprehension. The researchers can research other factors that also affect reading comprehension achievement. The performance of the teachers, the attractiveness of the media, or other personal traits as self-esteem, personality, or efficacy are some example of variables that extremely influence the teaching and learning.

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