# Reading Comprehension Achievement and Vocabulary Mastery through Social Constructivist Strategies

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Abstract: This research aims at investigating whether: (1) teaching reading comprehension using K-W-L influences students' reading comprehension achievement and vocabulary mastery, (2) teaching reading comprehension with Reciprocal Teaching (RT) influences students' reading comprehension achievement and vocabulary mastery, (3) the students having high reading comprehension achievement and vocabulary mastery will achieve better results when taught with K-W-L, and (4) the students having low reading comprehension achievement and vocabulary mastery will achieve better results when taught with Reciprocal Teaching, and (5) the students' social values grow among students. Factorial design 2x2 was used in this research. The subjects were the second-semester students of Business Administration study program consisting of four classes of high and low. The first group was treated with K-W-L and the second group was treated with RT. The data were analyzed by using t-test. Based on the analyses, K-W-L and Reciprocal Teaching significantly affect students' achievements on reading comprehension and vocabulary, but students' achievements on reading comprehension and vocabulary mastery taught by using RT are higher than those of the students taught by using K-W-L. Social values such as cooperative, responsible, respectful, and critical among students also grow.

# **1 INTRODUCTION**

Based on TOEIC results, starting from 2014-2017 at Politeknik Negeri Sriwijaya, it was found that students' ability in reading comprehension and vocabulary were still low. It is indicated by students' difficulties in comprehending reading texts and vocabulary. The students often failed in comprehending reading texts and vocabulary. The problem also comes from the lecturers' technique and strategy in teaching. The results of an interview conducted by the writers to eighty students of four study programs showed that English lecturers still applied a traditional teaching strategy. The data revealed that the English lecturers asked the students to write things in their books, translate the text into the Indonesian language, read the texts one by one, read the text silently, open English dictionary anytime they stuck to using words that they did not know, and answer the questions provided in the textbook. These activities made the students bored and passive. Allen (2003) and Riswanto and Detti (2014) say that some less-intellectual students in the classroom keep silent, and feel reluctant to answer the questions from the lecturer. Moreover, smart students tend to make their exclusive groups and

dominate the learning process. In other words, the gap of achievement among them increases.

To overcome this problem, it is advisable that the English lecturers at Politeknik Negeri Sriwijaya change their strategies in the teaching process and should consider the effective and creative teaching strategy, especially for teaching reading skill. An English lecturer is one the most influencing factors in obtaining the success of reading comprehension course.

Hutchinson and Waters (1987) in Brown & Palincsar (1984) and Blachowicz & Ogle (2017) propose the changing paradigm from teachercentered into the learning-centered approach in that all aspects of learning should consider the students' needs and wants including goals, activities, materials, and even the evaluation models of learning. In this case, learning focuses much more on how students can learn how to adjust between individuals and society. English lecturers can influence what they teach to students, but students have their right to determine to learn.

Murcia (1991) says that English lecturers should be able to select properly or even combine selectively among the recent four methods such as cognitive approach (language is rule-governed

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cognitive behavior), affective-humanistic approach (learning a foreign language is a process of selfrealization and of relating to other people), comprehension approach (language acquisition occurs if and only if the learner comprehends meaningful input), and communicative approach (the purpose of language is communication). Bos & Vaughn (2002) together with Hockly (2011) claim that reading strategies of constructivism can play a dynamic role in the relationship between how English lecturers teach and how students in the classroom learn. One foundational premise of constructivism is that students actively construct their knowledge, rather than merely absorbing ideas spoken to them by lecturers.

There are many problems related to the teaching and learning situation in the classrooms: (1) many students still had difficulties in comprehending texts, (2) the learning atmosphere is not conducive in which many students are not active and bored, (3) students had low motivation to learn, (4) the diversity between smart and slow-students is getting higher, and (5) the reading strategy used by the English lecturers was traditional/ conventional.

The reading strategies used by the present lecturers are less motivating and directly involving the students. Many English lecturers in teaching the reading-comprehension course still employ a teacher-centered method covering activities of making a list of difficult words, translating their meanings into L1 (First Language), asking students to read loudly and/or silently, and having students answer the questions related to the text. However, this kind of reading strategy caused negative effects on the teaching and learning process and affected students' reading skill. Only some students, categorized "knowledgeable," dominated the classroom. Other students kept silent, did not participate and made a noise. In the classroom, there was a gap between students who were knowledgeable on English course and students who were less-knowledgeable on English course. When the English lecturers asked them to work in a group, the knowledgeable students did not want to select less-knowledgeable students to join their group. They tended to pick the students whose competencies were like theirs. They welcome lessknowledgeable students to be a member of their group after the English lecturers had insisted on them. It surely made the learning atmosphere in the classroom less encouraging. The writers believe that in teaching learning process, a lecturer plays an important role as a facilitator. Brown & Palincsar (1984) along with Sporer, Brunstein & Keischke

(2009), and Riswanto and Detti (2014) state that teaching is giving guidance, facilitating learning, enabling the learner to learn, and setting the condition for learning. As facilitators, lecturers have to be able to facilitate students to learn. One of them is facilitating the students with appropriate teachinglearning strategy so that they can easily learn. Considering that condition, the writers were interested in changing the condition by conducting research concerned on implementing K-W-L and Reciprocal Teaching Strategy to improve students' reading comprehension achievement and social values among the second-semester students at Business Administration in Politeknik Negeri Sriwijaya State Palembang. Based on the background of the study, the study is intended (1) to find out whether K-W-L reading strategy influences students' reading comprehension achievement and vocabulary mastery, (2) to find out whether Reciprocal Teaching reading strategy influences students' reading comprehension achievement and vocabulary mastery, (3) to find out whether students whose reading comprehension achievement and vocabulary mastery are high achieve better result when they are taught by using K-W-L reading strategy, to find out whether students whose reading comprehension achievement and vocabulary mastery are high achieve better result when they are taught by using Reciprocal Teaching reading strategy, and (5) to know what kinds of social values that develop among students,

Theoretically, this study can be used to give us evidence about implementing reading strategies of constructivism that can be used to improve students' reading comprehension achievement and social values through *K-W-L* and *Reciprocal Teaching* reading strategy. Besides, the results of this study are expected to enrich theories and can be references for future studies related to *K-W-L* and *Reciprocal Teaching* reading strategy in improving students' reading comprehension achievement, vocabulary mastery, and social values.

Practically, this study has benefits for the teachers, students, and Sriwijaya State Polytechnic. The results of the study will help English teachers especially for those who teach reading comprehension course at Sriwijaya State Polytechnic to improve their students' reading comprehension achievement, vocabulary mastery, and social values. For the students, it will encourage them to read more and more be motivated. The last is beneficial for Sriwijaya State Polytechnic in which the result of the study will be documented in the forms of a published journal, proceeding and learning design. It

will surely be useful not only for the institution but also study program accreditation at Sriwijaya State Polytechnic.

### **2 LITERATURE REVIEW**

#### 2.1 Constructivism

Constructivism is another, somewhat related, a trend in education that can play a dynamic role in the relationship between how teachers teach and how students learn. One foundational premise of constructivism is that children actively construct their knowledge, rather than simply absorbing ideas spoken to them by teachers (Fosnot, 2005; Stricklin, 2011; Yang, 2010).

Constructivism emphasizes the processes by which students create and develop their ideas. Furthermore, when children collaborate in cooperative learning groups, they share the process of constructing their ideas with others. This collective effort provides the opportunity for children to reflect on and elaborate not only their ideas but also their peers as well. In this cooperative learning setting, students view their peers as resources rather than as competitors in which a feeling of teamwork ensues which resulted in substantial advances in student learning (Bulach et al., 2008).

#### 2.2 K-W-L Strategy

K-W-L is an instructional scheme that develops the active reading of expository texts by activating learners' background knowledge. Moreover, KWL provides a structure for recalling what learners know about a topic, noting what they want to know, and finally listing what has been learned and is yet to be learned. In the implementation process, learners begin by brainstorming everything they **Know** about the topic. Then, the relevant information is recorded in the **K** column of the K-W-L scheme (see Table 1). After that, learner generates a list of questions about what they **Want** to know about the topic. These questions are listed in the **W** column. During or after reading, learners answer these questions. What they have learned is recorded in the **L** column.

In addition, according to Fengjuan (2010) and Bainbridge (2017) K-W-L guides students through their reading material. Although the process begins as a before reading activity, its primary purpose is to develop a framework which students can use as they read. The procedure of K-W-L strategies is divided into three steps. First, provide students with the opportunity to brainstorm and list the ideas in the **K** items and details that they already know about a topic. Second, they review the topic again and consider what they still want to know. They list these items in the W section of the chart. Items should be listed as questions. Third, as they read or after they read, students add details that they have learned while reading. They list these items in the L section of the chart.

### 2.3 Reciprocal Teaching

Reciprocal teaching is an instructional strategy based on modeling and guided practice, in which the instructor first models a set of reading comprehension strategies and then gradually cedes responsibility for these strategies to the students (Guthrie, 2008; Mvududu and Thiel-Burgess, 2012; Palincsar, 1986; Palinscar and Brown, 1984). Specifically, reciprocal teaching consists of three main components, (a) the teaching and learning of specific reading comprehension strategies, (b) the dialogue between a instructor and students where the instructor models why, when, and where to use these reading comprehension strategies, and (c) the appropriating of the role of the instructor by the students, that is, students begin to model the reading comprehension strategies for other students. Thus, the goals of reciprocal teaching are for students to learn the reading comprehension strategies, learn how and when to use the strategies, and become self-regulated in the use of these strategies. Palinscar and Brown (1984), in their original research, used four discrete reading comprehension strategies within reciprocal teaching: questioning, summarizing, clarifying, and predicting. Questioning involves the identification of information, themes, and ideas that are central and important enough to warrant further consideration. The central or important information, themes, or ideas are used to generate questions that are then used as self-tests for the reader. Questioning provides a context for exploring the text more deeply and assuring the construction of meaning. Summarizing is the process of identifying the important information, themes, and ideas within a text and integrating these into a clear and concise statement that communicates the essential meaning of the text. Summarizing may be based on a single paragraph, a section of text, or an entire passage. Summarizing provides the impetus to create a context for understanding the specifics of a text. Clarifying involves the identification and clarification of unclear, difficult, or unfamiliar aspects of a text. These aspects may include awkward sentence or passage structure, unfamiliar vocabulary, unclear references, or obscure concepts.

Clarifying motivates to remediate confusion through re-reading, the use of context in which the text was written and/or read, and the use of external resources (e.g., dictionary or thesaurus). Predicting involves combining the reader's prior knowledge, new knowledge from the text, and the text's structure to create hypotheses related to the direction of the text and the author's intent in writing. Predicting provides an overall rationale for reading to confirm or disconfirm self-generated hypotheses.

## **3 METHOD**

In this study, the writers use a factorial design to extend the number of relationships that may be examined. Anderson (2005) propose that they are essentially a modification of either the post-test only control group or pre-test post-test control group designs, which permit the investigation of additional independent variables. Furthermore, the advantage of the factorial design is that it allows the researchers to study the interaction of an independent variable with one or more other variables. It is also possible for the researchers to assess the effect of each independent variable separately as well as their conjoint or simultaneous effect or interaction. In other words, the factorial design is an efficient way to study several relationships with one set of data.

The experimental group is the class taught with *Reciprocal Teaching* (RT) reading strategy and the control group is taught with *Know-What-Learn* (K-W-L) reading strategy. They are given different treatment. Before the treatment, the writers give the groups the pretest. After the treatment, the groups are then given posttest. The students' English reading comprehension achievement is classified into high and low. By doing so, the writer can find out whether RT and K-W-L reading strategies can be used to improve students' reading comprehension achievements, vocabulary mastery, and social values on high and low groups.

The experimental design of the independent and dependent variables can be seen in a 2X2 Factorial Design; the table can be seen as follows:

Factor	Reading Strategies					
A	Know	-What-Learn (Experimental Group)	Reciprocal Teaching (Group A <sub>2</sub> )			
Factor B	$\sim$	(Group A <sub>1</sub> )				
	High $(B_1)$	Group $A_1 B_1$	Group $A_2 B_1$			
Reading		(Students having high reading	(Students having high reading			
Comprehension		comprehension achievement taught	comprehension achievement taught			
Achievement		using K-W-L)	using Reciprocal Teaching)			
	Low $(B_2)$	Group $A_1 B_2$	Group $A_2 B_2$			
		(Students having low reading	(Students having low reading			
	comprehension achievement taught		comprehension achievement taught			
		using K-W-L)	using Reciprocal Teaching)			

Table 1: Factorial Design 2X2

Table 2:	Lesson	Plan	for	K-W-L	Strategy
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Step	Time	Activities								
Pre-A	Pre-Activity: Train students to collect their schema and find out their lack of info K-W step: Activate students'									
schen	schema relating to the topic of the text and find out what they don't know and want to know: Work in a group.									
		f 2 levels to access prior knowledge in step (K):								
- The	first is the	e straightforward brainstorming of what the group knows about the topic for reading: to select a key								
conce	ept									
for	the brains	torming that is specific enough to generate the kind of information that will be pertinent to the								
readir	ıg.									
- The	teacher's	role is to record whatever the students volunteer about the topic on the board or an overhead								
projec	ctor.									
- The	second pa	rt is eliciting what is already known.								
By:										
<ul> <li>Mak</li> </ul>	• Make some questions to relate students to the content of the text then students discuss the answer of the questions.									
OR	OR									
1	10	•Modeling 1 or 2 examples from the information that have already generated, then students begin to								
	min	think of								

	1	
		categories that can be added to the list.
		OR
		•Having students to read similar articles (help them to build a background knowledge). In order to help
		•Students find out what they don't know and what they want to know.
		•If not all students agree on the same pieces of information, some pieces of information is
		conflicting, some of the
		categories have had no particular information provided.
2	5 min	Highlight their disagreements and gaps in information and help the students raise questions that
2	5 1111	focus their attention and energize their reading.
3	5 min	Preview the article (Text) to discern the match between students' expectations and the actual
		construction of the article.
4	5 min	Note difficult or unclear sections for students
Main-	Activity	
1	10	· Provide students some key words and some new grammar points to help them read the text to find
	min	out the answer
		for their questions then ask students to make some example using the new grammar points.
		• Students (work in groups) skim to find the structure of the text (number of paragraphs or parts) and
		the main idea of
	10	every paragraph or part (Work in groups).
2	10	Let students do the word-matching exercise (match the words in column A with their definition in $D = C$
3	min 20	column B) or Gap-filling exercises.
3	20 min	• Work in groups depending on the number of the parts in the text: After reading carefully follow the given
	111111	questions, students in the same group on the same piece of paper as much as possible what they
		remember about
		the text - part by part, relate them to their question and find out what are not related to their
		questions: the new
		things that are higher than their background knowledge. Then every group report to the whole class
-		their summary
		or answer the given comprehension questions.
Post-A	Activity	
• L Ste	ep: what	I learned and still need to learn
-The v	whole tex	t summary and report
1	20	Students summarize the whole text (principle 4), then report to the class briefly. The class listen and
	min	a volunteer student report again more briefly in writing (not pay much attention to the grammatical
		correctness). After that the teacher corrects to make the more perfect summary.
2	5 min	Adding more information: Teacher gives more information about the main features in the text.
3	5 min	-Further Reading:
		Having them check their questions to determine if the article dealt with their concerns. If not,
		suggest further reading to fulfill their desires to know. Give students some more names of book
		relating to the text for further reading & ask them to summarize briefly a book they like best.

Source: Dieu (2016)

Table 3: Lesson Plan for R	Reciprocal Teaching Strategy

Step	Activities by Lecturer	Activities by Students	Media and	Characters
			Teaching Aid	
(1)	(2)	(3)	(4)	(5)
Beginning	•communicate what students are	•listen	•syllabus	<ul> <li>careful</li> </ul>
5 min	going	<ul> <li>pay attention</li> </ul>	<ul> <li>course agreement</li> </ul>	<ul> <li>cooperative</li> </ul>
	to learn for today	•question	<ul> <li>reading text</li> </ul>	<ul> <li>responsible</li> </ul>
	•communicate why the topic is			<ul> <li>critical</li> </ul>
	important to learn			<ul> <li>communicat</li> </ul>
	•communicate how communicate			ive
	how			<ul> <li>respectful</li> </ul>
	the learning process is happening			
	•communicate how the learning			
	process			
	is happening			

	•communicate the expectation		
	towards		
	the learning objectives • motivate students		
Middle	•introduce the new learning	•listen and pay attention	
-The heart of	material	•question,	
the lesson-	•demonstrate and illustrate the	•play a role as predictor,	
135 min	steps in	questioner, summarizer	
	the reciprocal teaching	and	
	•place students in a heterogeneous	clarifier in a group	
	group of 4-5 students (depend on	<ul> <li>cooperate in a team</li> </ul>	
	the	•present the group's work	
	number of students in the class)	and propose a	
	•have students play their roles in	question(s)	
	their	to other groups (if any)	
	group as a predictor, clarifier,	•criticize other groups'	
	questioner, and summarizer (next	work	
	meeting they change their roles in their group)		
	•make sure all students capable of		
	applying RT strategy well		
	•make sure all activities reflect the		
	learning objectives		
	•have the groups present their team		
	work		
	•distribute formative test		
End	•summarize the teaching and	•have the groups hand	
10 min	learning material for the day	their	7
	•communicate the students	groups work out	
	achievement for the day	•have the students hand	
	•communicate the reading	their	
	material for next meeting	formative test out •summarize the lesson	
urce: Ardiansya	1 (2017)	-summarize the lesson	

Table 1 shows that (1) by comparing the two reading strategies under treatment variables, Know-What-Learn ( $A_1$ ) to observation under Reciprocal Teaching ( $A_2$ ), it is possible to contrast the effectiveness of those reading strategies to teach reading comprehension course to students viewed from their high reading comprehension achievement; (2) by comparing  $A_1 B_1$  to group  $A_2 B_1$ , it can be pointed which reading strategies is better applied to teach reading comprehension achievement; and (3) by comparing group  $A_1 B_2$  to group  $A_2 B_2$ , it can be pointed which reading strategies are better applied to teach reading comprehension to students having high reading comprehension to students having low reading comprehension to students having low reading comprehension achievement.

The research steps in the experimental and control group are pre-test, treatments, post-test. The pre-test explores the students' reading comprehension skill before they get the treatments. The post-test is given to the students after they have got the treatments. Therefore, the data for the research is collected from the scores of four pre-tests and the four post-test and then the data are analyzed and evaluated using t-test.

#### **3.1 Research Variables**

Variable of this research is what is researched by the researcher. A variable is any entity which is determined by the researcher to be studied in order to gain the information, then will be concluded. Flynn (2004) says that a variable incites excitement in any research than constants. It is therefore critical for beginners in research to have clarity about this term and the related concepts.

There are two variables examined in this research. Those are independent and dependent variable. Independent variable is also called stimulus, predictor or antecedent variable. Independent variable is variable which will give effect to the dependent variable. In this study, the independent variables are reading strategies (K-W-L and RT).

Dependent variables are also called output, criteria or consequent variable which will get the

effect or cause from independent variables. In this study, the dependent variables used is the students' reading comprehension achievement, and vocabulary mastery, while the social values are the nurturing effects of applying the two strategies.

#### 3.2 Subjects of the Study

The population of the study is the third-semester students of Business Administration Polytechnic of Sriwijaya in academic's year of 2016/2017. The Business Administration Study Program has eight classes of the third semester. Each class consists of 24 students.

The researcher takes four classes which comprise two classes whose reading comprehension achievement are high, and two classes whose reading comprehension achievement are low. One class of high and low reading comprehension achievement will be treated using K-W-L reading strategy, and one class of high and low reading comprehension achievement will be treated using Reciprocal Teaching.

### **3.3 Data Collection Technique**

The writers give reading comprehension test and vocabulary test of multiple choices consisting of forty items to the students. To know the validity of the test, the writers use the content validity. Chaille (2008) states that content validity is a logical process where connections between the test items and the job-related tasks are established. If a thorough test development process was followed, a job analysis was properly conducted, an appropriate set of test specifications were developed, and item writing guidelines were carefully followed, then the content validity of the test is likely to be very high.

#### **3.4 Instruments**

The test is to identify the quality of students' reading comprehension achievement before and after treatment. Chaille (2008) cites that the tests are collected and the item-by-item answer data collected and analyzed for strengths and weaknesses. From this information, the instructor may want to alter the content of the course to build upon weakness and use strengths as motivation to encourage more learning. Any student doing poorly should be identified and given additional help.

The test is intended to administer in order to gain the needed data. The reading comprehension and vocabulary tests comprise 40 items in the form of multiple choices. A pre-test is conducted before students get the treatment. The researcher administers the pre-test to find out four groups' reading comprehension achievement and vocabulary mastery before they get different treatments. Posttest is held after they get the treatments. The posttest is held after the writers have treated students using K-W-L and Reciprocal Teaching on four groups (two high and two low classes).

# 3.5 Validity and Reliability

In this research, the writers use content validity and correlation product moment technique to find  $r_1$  to measure the reliability of the instrument. The try out is conducted by the researchers. The result of the try-out will show the level of reliability. Based on the table of criteria of the reliability of the test, the test can be judged whether the test is reliable or not. Thus, the test can be used as the instrument of this research.

#### **3.6 Data Analysis Procedures**

Before *t-test* is used, the distribution of data is analyzed. If the distribution of data is normal, the parametric statistics (*t-test*) is used to know the significances between pre-test and post-test of control and experimental groups.

# **4 RESULT AND DISCUSSIONS**

_	Table 4. Table of Normanty Tests							
	Reading Comprehension Score between Reciprocal Teaching VS KWL High Class							
	Group	Kolmogorov-Smirnov <sup>a</sup> Shapiro-Wilk						
		Statistic	df	Sig.	Statistic	df	Sig.	
Γ	Experiment	.123	24	$.200^{*}$	.962	24	.481	
	Control	.124	24	$.200^{*}$	.972	24	.706	

Table 4: Table of Normality Tests

Reading Comprehension Achievement and Vocabulary Mastery through Social Constructivist Strategies

Vocabulary Score between Reciprocal Teaching VS KWL High Class								
Experiment	.153	24	.149	.945	24	.211		
Control	.126	24	$.200^{*}$	.967	24	.589		
	Reading Comprehension Score between Reciprocal Teaching VS KWL Low Class							
Experiment	.157	24	.131	.942	24	.183		
Control	.108	24	$.200^{*}$	.937	24	.140		
	Vocabular	y Score between R	eciprocal Teachin	g VS KWL Low C	Class			
Experiment	.147	24	.193	.945	24	.208		
Control	.125	24	$.200^{*}$	.964	24	.535		

In Table 4, it is known that *P-values (Sig.)* of experiment and control classes for normality test Liliefors (Kolmogorov-Smirnov) and Shapiro-Wilk are bigger than

 $\alpha = 0.05$ . It means that data from the population are normally distributed.

Table 5: Reading Comprehension and Vocabulary Test of High and Low Class

			High Class	5			
		Pre-test	Post-test	Mean	Std.	Sig. (2-tailed)	t
					Deviation		
Strategy	Reading Comprehension	5.6458	7.4063	-1.76042	.78186	.000	-
K-W-L							11.030
	Vocabulary	6.8021	8.1563	-1.35417	.88440	.000	-7.501
Strategy	Reading Comprehension	5.7083	7.7708	-2.06250	.75631	.000	-
Reciprocal							13.360
Teaching	Vocabulary	6.2917	8.5313	-2.23958	.60559	.000	-
							18.117
			Low Class	5			
Strategy	Reading Comprehension	4.3125	6.7604	-2.44792	.77663	.000	_
K-W-L							15.442
	Vocabulary	5.5521	7.5000	-1.94792	.86596	.000	-
			/				11.020
Strategy	Reading Comprehension	4.5833	7.2188	-2.63542	.56134	.000	0.0.7
Reciprocal				.uga			23.000
Teaching	Vocabulary	5.6042	8.0208	-2.41667	.65801	.000	-
	-						17.993

The result of reading comprehension of a high class using strategy K-W-L in table 5 shows that the pre-test score before treatment is 5.6458 and post-test after treatment is 7.4063 with mean differences - 1.76042, while Std. Deviation: between pre-test and post-test is .78186.

It is also known that *t* is -11.030 with Sig. (2 tailed) .000. Compared to  $t_{table}$  alpha 0.05 (df 23), it is 2.069. So,  $t_{obtained}$  -11.030 is bigger than  $t_{table}$  (0.05, df 23) = 2.069. It means that there is a significant difference taking place on students' reading comprehension achievement before and after being given strategy K-W-L.

The result of vocabulary mastery of high class using strategy K-W-L shows that the pre-test is 6.8021, and post-test is 8.1563 with the mean difference -1.35417. Std. The deviation between pretest and post-test on vocabulary achievement is .88440. Based on the result of vocabulary achievement between pre-test and post-test of the high class using strategy K-W-L, it is known that *t* is -7.501 with Sig. (2 tailed) .000. Compared to  $t_{\text{table}}$  alpha 0.05 (df 23), it is 2.069. So,  $t_{\text{obtained}}$  -7.501 is bigger than  $t_{\text{table}}$ (0.05, df 23) = 2.069. It means that there is a significant difference between pre-test and post-test.

The strategy K-W-L is also used in a class of low reading comprehension achievement and vocabulary mastery. The Mean of pre-test of reading comprehension is 4.3125, and the Mean of post-test of reading comprehension is 6.7604. The mean difference between pre-test and post-test of reading comprehension achievement is -2.44792 with Std. Deviation .77663.

To know whether there is a significant difference between pre-test and post-test of reading comprehension, the probability (the level of significance) must not be higher than 0,05. In table 5, it is known that *t* is -15.442 with Sig. (2 tailed) = .000 and probability (the level of significance) .005 which is bigger than .000. In conclusion, there is a significant difference in vocabulary mastery before and after.

In vocabulary mastery, the means of pre-test and post-test of the low class are 5.5521 and 7.5000 with Std. Deviation .86596 and mean difference - 1.94792. To know the significant difference between pre-test and post-test, the probability (the level of significance) .005 must not be bigger than .000. In table 5, t is -11.020 with Sig. (2 tailed) .000. It means the average scores before and after treatment is different.

In table 5 it is also found that the mean differences between pre-test and post-test of reading comprehension of the high class taught with Reciprocal Teaching are -2.06250 with Std. Deviation .75631. To determine whether there is a significant difference before and after the treatment, the probability (the level of significance) .005 must not be higher than .000. Seen that t is -13.360 with Sig. (2 tailed) .000. It indicates that there is a significant difference before and after on students' reading comprehension achievement.

Concerning the vocabulary mastery of high class taught with Reciprocal Teaching, it is known that the mean difference between pre-test and post-test is -2.23958 (6.2917 - 8.5313) with Std. Deviation .60559. Also, there is a significant difference in students' vocabulary mastery before and after treatment. It could be seen that *t* is -18.117 with Sig. (2 tailed) .000. Compared to *t* table alpha 0.05 (df 23), it is 2.069. So, *t* obtained -18.117 is bigger than t table (0.05, df 23) = 2.069. It means that the average scores before and after treatment are significantly different.

The reading comprehension achievement of the low class taught with Reciprocal Teaching also indicates that there is a significant difference before and after treatment. It can be seen that *t* is -23.000 with Sig. (2 tailed) .000, then it is compared to *t* table alpha 0.05 (df 23). *t* table alpha 0.05 (df 23) is 2.069. Since t obtained -23.000 is bigger than *t* table (0.05 with df 23) 2.069, it means that there is a significant difference between pre-test and post-test of reading comprehension before and after the treatment.

Concerning the vocabulary mastery of low class taught with Reciprocal Teaching, it is known that *t* is -17.99 with Sig. (2 tailed) .000. Then it is compared to  $t_{\text{table}}$  alpha 0.05 (df 23).  $t_{\text{table}}$  alpha 0.05 (df 23) is 2.069. So,  $t_{\text{obtained}}$  -17.993 is bigger than 2.069. It means that the significant difference takes place on students' vocabulary mastery.

Based on the explanations above, the reading comprehension achievement and vocabulary mastery of high and low classes taught with Reciprocal Teaching and K-W-L strategy could significantly improve. It means that the two reading strategies can be used to improve students' reading comprehension and vocabulary. Even though the application of K-W-L reading strategy can significantly improve students' reading comprehension achievement and vocabulary mastery, its achievements are not so high as those of Reciprocal Teaching.

Based on the observation of the research, social values empirically grow among students. Before being introduced to reading strategies, whose philosophical root is social constructivism, their individualism was so dominant that they had their learning group in the classroom whenever there was assignment or task from English lecturer. The knowledgeable students tended to have a seat and worked with the students having the same qualities. Usually, their seating positions were in the front row.

The old event was contrary to the present event. After the students have been introduced to Reciprocal teaching and K-W-L in their learning process, they look to care for one another. They collaboratively work in constructing comprehension on the subject together. They look more responsible for what has become their work in a group. They also help their friends who have obstacles in doing their work in the group. The knowledgeable students heartedly and sincerely give their hands to the lessknowledgeable students to solve the problems they are facing in the group. Later on, their individualistic spirit gradually dies down. Seemingly right now their spirit is one for all and all for one.

#### **5 CONCLUSIONS**

Reciprocal Teaching (RT) and K-W-L reading strategy help English lecturers activate student's prior knowledge called schemata, concerning a topic or subject, and it promotes research, active reading, and inquisition since Schemata theory can be a very useful theory which helps English lecturers understand how students' brain processes information. Therefore, no one can deny that Reciprocal Teaching (RT) and K-W-L strategy can promote active learning. Active learning has become an important factor of education success, and it involves other activities that students do together in a class apart from simply listening to lectures. Studies show students comprehend the topics better and also retain them for long if they can actively react to course material or lecture. That means Reciprocal Teaching (RT) and K-W-L fosters active learning through enabling instructors to better assess their student learning levels during the course. In addition, Reciprocal Teaching (RT) and KWL strategy also encourage academic achievement success since students learn actively using Reciprocal Teaching (RT) and the K-W-L. It is likely that they will become even more connected to class and the topics or subject matter. They will, therefore, interact with their group-mates and class members and lecturers, increasing their chances for academic success.

Last but not least, Reciprocal Teaching (RT) and K-W-L strategy enhance learning as the prior knowledge has usually had a huge effect on student performance. In other words, there is also a wellrecognized relationship between learning comprehension and prior knowledge. Regardless of the ability of a student to read, high prior understanding of a certain subject area normally means better scores. Moreover, high prior understanding is also associated with enhanced learner interest in specific topics.

During the implementation of these two reading strategies to the classes, the social values, as among students such as cooperation, responsibility, and respect were seen. The knowledgeable students were pleased to teach and accommodate the lessknowledgeable students. The condition of learning process taking place in the classrooms was more conducive. There was no more a partition of being individualistic. They want to succeed together. They do not want even one of them to be left behind in education.

To sum up, following the proverb: "Seeing is believing," this research tried to prove the effect of the treatment. It also suggested a way to control a reading class, to create an interesting and exciting atmosphere. Hopefully, this research will be one way of motivating English lecturers at Politeknik Negeri Sriwijaya to overcome the difficulties when teaching reading and provide students opportunity to practice and improve their reading skill and vocabulary mastery.

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