PRWR: Evidence of Its Effectiveness in Teaching Academic Content-Area Reading across English Proficiency

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Abstract

This factorial quasi-experimental 2 x 2 study aimed to corroborate the effect of PRWR strategy, compared to Translation and Reading Aloud, on students' academic content-area reading comprehension as observed from their English proficiency. This study also examined the interaction between the strategy and English proficiency. Data were obtained from a reading comprehension test, a TOEFL PBT Equivalent test, and a set of questionnaires on students' perception towards the PRWR strategy. Prior to their administration, both the reading test and the questionnaire were expert validated and tried out, whereas the TOEFL PBT Equivalent test was conducted under the auspices of an English institute. 58 sophomore students at a state university in Malang, Indonesia, served as the subjects of the study. This turned out that first; students taught by the PRWR strategy have better reading comprehension than that of by Translation and Reading Aloud. Second, students with high English proficiency taught by the PRWR strategy have better reading comprehension than that taught by Translation and Reading Aloud. Third, there was no interaction between reading strategy and English proficiency. All in all, the employment of the PRWR strategy was highly recommended in academic content-area reading comprehension regardless students' English proficiency levels.

Keywords: Preview, Read, Write, and Recite strategy; micro reading skills; academic **content-area** reading; English proficiency

A. Introduction

The notion of Content and Language Integration Learning (CLIL) seems to be in line with the practice of EFL/ESL reading across levels of education. This is because in CLIL, the medium of instruction carried out to students in the class is English and not their mother tongue (Dalton-Puffer, 2007, p. 1). This means that whatever the materials are, English serves as the major channel for delivering the knowledge, and thus a sufficient strategy for academic content-area reading comprehension is in need. In other words, the non-English department students need to master curative tactics for dealing with the academic passages.

Although English has been exposed to learners since the commencement of secondary education in Indonesia, however, in terms of reading skills, including math and science, Indonesian students ranked 55 out of the 65 participants according to the assessment made by the PISA 2009 (Sulistyo, 2013). Regrettably, such a particular situation was deteriorating in 2011. It turned out that Indonesian fourth graders accounted for 95% of the variance in moderate level in academic reading, whereas Taiwanese students accounted for 50% of the variance in advanced level (Widyastono, 2014). On the one hand, this particular situation implies that the teaching of EFL reading has not met students' needs, and in all likelihood, the content is outdated and/or irrelevant to the advance of prevailing knowledge. On the other, this is likened to what has been drawn by Shen (2015) stating that such a piece of evidence previously is quite understandable due to lack of English exposure to the EFL countries. Given this situation, it is reasonable to conclude that teaching students how to read and deploy sufficient strategy in academic content-area reading is highly in need.

B. Literature Review

Attempts to teach effective strategies in reading have been carried out. A bulk of collaborative action research (Indahyanti, 2008; Khasanah, 2011; Pribadi, 2013; Setyawan, 2010) revealed that Survey, Question, Read, Recite, and Review (SQ3R) reading strategy significantly enhanced reading comprehension of EFL learners at the lower and upper level schools. Similarly, Haeriyanto (2012) and Winarsih (2013) find that PQRST (Previewing, Questioning, Reading, Summarizing, and Test) reading strategy significantly bolsters students' reading achievement in the middle and the upper schools.

In their experimental study at the tertiary level of education, Miqawati & Sulistyo (2014) point out that PQRST was an effective strategy and students benefited by implementing the strategy when reading compared to translation and reading aloud modes. In addition, however, this indicates no interaction between student's personality learning styles (i.e. sensing and intuitive) and the PQRST strategy (Miqawati & Sulistyo, 2014). In her 2015 study 'on the other side of the coin', Fitriani reveals that PANORAMA (Purpose, Adaptability, Need to pose questions, Overview, Read and relate, Annotate, Memorize and Assess) reading strategy is insignificant for its relation to translation and reading aloud. Such ineffectiveness was due to similar instructional steps (Exploration, Elaboration, and Confirmation) that carried out to both classes (the experimental and the control).

Based on the above findings, it is reasonable to conclude that first, most reading strategies have been found effective and successful in boosting students' reading

comprehension from secondary to tertiary level of education. Second, when it was tested experimentally, however, some other strategies were ineffective in relation to its' another factor (e.g. personality learning styles). With this frame in mind, teaching the non-English department students how to preview, read, write, and recite (PRWR) respectively is highly recommended. In addition to that, since previous studies mostly lied in the secondary level of education, to the best of researcher's knowledge, there was a limited amount of research investigating the PRWR reading strategy at the tertiary level of education particularly in the context of non-English department.

The PRWR reading strategy in this study was not meant teaching students the strategy directly, but it applied the three-phase framework of teaching (pre, whilst, and post), and in each phase of the strategy (preview, read, write, and recite), several questions or questioning were deployed. The employment of questions in each phase of the strategy aimed to scaffold students' comprehension of the academic texts. Sulistyo (2011) posits that the three-phase framework of teaching is applicable to the teaching language skills including reading. Both the syntax of the strategy and its delivered questions are explicable in the following.

Preview. This is the first facet of the strategy. As the name indicates, this phase provides students with such a bird's-eye view and enables them to look through an entire chapter before reading (Langan, 2002). This aimed to activate both their content schemata and formal schemata. The content and formal schemata refer to background information and cultural experience that carry out students' interpretations (Brown, 2004).

Table 1. Syntax of Previewing and its Activities (adapted from Langan (2002; Sulistyo, 2011)

No	Syntax of Previewing	Questions may be Raised	Activities
1	Study the title	• Have you ever read the topic about…?	• Students activate their background knowledge, experience and/or feeling related to the passage.
2	Quickly read over *the first* and *the last* several paragraphs	• How many aspects are there in …?	
3	Look at different levels of *headings*	• What can you infer from the headings?	• Students respond to the teacher's questions by: 1. describing their experience about the topic,
4	Look briefly at words marked in *boldface*, *italics*, and in *colors*	• What experience do you have with this...? • Is it a good experience?	2. pointing out some values related to the topic, 3. drawing a conclusion from their experience about the topic.
5	Glance at *pictures*, *charts*, and *boxed material* in the chapter	• What is the picture about?	

In her study on the effects of pre-reading strategies on EFL/ESL reading comprehension, Mihara (2011) reported that vocabulary pre-teaching is less effective than pre-questioning strategy. It turned out further that Japanese students (n=78) who carried out pre-questioning strategy always did better on a reading comprehension test than those in the other, albeit students with higher proficiency outperformed lower

level students regardless of which pre-reading strategies they employed (Mihara, 2011). This implies that activating students' schemata through questions or questioning promotes their awareness of the title, picture, and context of the passage thereby an insightful meaning.

Read. As the name illustrates, this phase is surely devoted to reading activity. Since this present study confined its scope in micro reading skills (i.e. Sulistyo, 2011), therefore when reading a passage, students were encouraged to focus only on scrutinizing the meaning through context clues, denotation and connotation, topic of a paragraph, main idea and supporting details, and concluding factual information. In addition to this, a model of guidelines for reading (Langan, 2002) and guide-questions (Sulistyo, 2011) was employed in this phase.

Table 2. Syntax of Reading Phase and its Activities (adapted from Langan (2002)

No	Syntax of Reading Phase	Activities
1	Underline definitions, topic of paragraphs, main ideas, and factual information.	Along with the teacher's instruction, the students are encouraged to:
2	Put an *Ex* in the margin as a mark of examples in the passage.	1. read the passage thoroughly, 2. underline important words and ex,
3	Number the list items (i.e. 1, 2, 3) to show priorities in each paragraph.	3. identify the definitions, topic of paragraphs, main ideas, and factual information by using a ballpoint,
4	Use *imp* or a star/sign (i.e. ♯) in the margin to show some important points in the passage.	4. respond to some teacher's guide-questions in the class, and 5. ask questions dealing with difficulties in scrutinizing the meaning in the passage.

To scaffold students' reading comprehension, the outlined syntax previously was in favor of guide-questions employment postulated by Sulistyo (2011) in Table 3.

Table 3. List of Guide-Question in Reading Phase (adapted from Sulistyo (2011)

No	In terms of	Questions may be Raised	Activities
1	Title and context clues	• Based on the title, what does the passage most likely deal with? • What does the word '…' mean?	Along with the teacher's instruction, students are encouraged to: 1. respond to the teacher's guide-questions,
2	Denotation and connotation	• What does the word in line '…' closely mean?	2. underscore some important words (keywords) and examples in the passage,
3	Topic of a paragraph	• What is the topic of the whole passage?	3. identify the topic of a paragraph, and
4	Main idea and supporting details	• What is the main idea of the first paragraph? • What can you compare between the first and second main idea in the passage?	4. identify main ideas in each paragraph.
5	Concluding factual	• What can you infer from the whole passage?	

No	In terms of	Questions may be Raised	Activities
	information	• What are important aspects constructing '….'?	

In relation to the importance of guiding questions in whilst reading activity, Fordham (2006) argues that educators should not take for granted that both pre-service and in-service teachers automatically make the link between comprehension questions and the instructional questions in practical terms. Such a case is caused by the teacher's ignorance about both cases (comprehension questions and instructional questions). If students were obliged to answer queries about their understanding of the passage at last, teaching students instructional questions in an explicit instruction was in need at first. In her study on content-area reading, Fordham (2006) posits that such practice will trigger students' mental process, and concludes that questions or questioning in content-area reading should be constructive and related to students' mental that scaffold their sense to the passage.

Write. This was the phase in which students writing what they have read previously. Once the passage had been read, the students were encouraged to make a summary on a piece of paper in terms of topic of a paragraph, main idea and supporting details, factual-information, and definition as well as its examples.

Table 4. Syntax of Writing Phase and its Activities (adapted from Langan:2002)

No	Syntax of Writing Phase	Activities
1	Write the title of the passage at the top of a piece of paper.	Along with the teacher's instruction, the students are encouraged to:
2	Rewrite headings as basic questions to help you locate important points such as topic of a paragraph, main ideas and supporting details, and factual-information.	1. take a piece of paper and write the title of the passage at the top, 2. rewrite some important points that they found in the passage in terms of topic of a paragraph, main idea and supporting details, factual information, and definition and its examples.
3	Look for definition of key terms and its examples in the passage.	
4	Try not to make many words.	

To bear in mind, in this phase students were allowed to see directly to the passage when writing a summary. Such a particular situation aimed to confirm their understanding of the passage. In addition, there was a piece of evidence in favor of summarizing. In their meta-analysis on the true and quasi-experimental studies focusing on the impact of writing and writing instruction on reading, Graham and Hebert (2011) find that writing about material read enhances reading comprehension. This accounted for 94% in the variability of research (n=55) produced a positive effect size (ES). In short, the employment of writing (summarizing) in the academic content-area reading is highly recommended.

Recite. After highlighting some important points, students were asked to recite their summary in their own words. For this reason, Langan (2002) posits that the employment of keywords and phrases in this phase will demystify students' recitation. The keywords and phrases employed in this post reading activity were defined as recall words (Langan, 2002). Syntax of reciting phase and its activities is set out in Table 5.

Table 5. Syntax of Reciting and its Activities (adapted from Langan, 2002)

No	Syntax of Reciting	Activities
1	Take another piece of paper	• In this post reading activity, students are asked to recite the passage in their own words by formulating some recall words at first.
2	Formulate some keywords and phrases related to the passage (e.g. three alternatives to conflict)	
3	Look at the recall words and see whether you can recite three alternatives to conflict or not.	• Students may see and reread the passage and their summary but not as many as in the writing phase.
4	Go back and reread the items in the passage if necessary.	

To assess students' comprehension of the passage, eventually, a set of reading comprehension tests were delivered to the students in the last session of the class. Hence, comprehension questions will be employed. The academic content-area reading comprehension in this study refers to second language reading with subject matter at the tertiary level of education and aims to help learners acquiring content literacy in a specific academic field. It measures students' comprehension in terms of a model of micro reading skills comprising word attack skills and text attack skills (Sulistyo, 2011). More specifically, students' reading comprehension in this study referred to their ability to decode the meaning in the passage through context clues, denotation and connotation, topic of a paragraph, main idea supporting details, factual-information, and was indicated by the obtained scores from the reading comprehension test (posttest).

The rationale for measuring students' reading comprehension in terms of micro reading skills was due to the corollary to such weaknesses. This is apparent from Sulistyo's (2013) study indicating that students' mastery of academic content area reading both in three private and three state universities in Malang (n=400) ranges from "average" to "low". Regrettably, such a piece of evidence seems to be in line with the English Proficiency Index (EPI, 2012 as quoted by Pinner (2013), reporting that Hong Kong and South Korea are ranked as having only "moderate proficiency" in English, whereas China, Taiwan, and Indonesia are marked as having "low proficiency". Another study by Shen (2015) reported that in the context of Taiwan where English serves as a foreign language as well, it accounted for 93.3% of the variance in students' difficulty in academic reading was attributed to vocabulary. This was in turn, followed by inability to read a large quantity of material (64.4%), and figure out complex-sentence structures (53.3%) (Shen, 2015).

With reference to the three pieces of evidence, some conclusions are drawn; first, Indonesian students' English proficiency is categorized as low. As a result, second, most students are in vain to decode the meaning in the passage in terms of word attack skills, sentence attack skills, and text attack skills. Third, in the context of EFL countries, vocabulary mastery plays a part in academic reading comprehension. All in, such a particular situation previously needs painstaking attention, and hence, (Landi, 2010) stipulates that understanding reading compression and the skills necessary for adequate comprehension in adults will provide a more complete understanding of comprehension ability.

As shown previously, another factor affecting students" reading comprehension is English proficiency. Since it plays the role in the EFL/ESL learners' success in academic reading, many L2 reading researchers (Bernhardt, 2005; Cui, 2008; Jiang, 2011; Park, 2013) got their hands dirty in assessing this factor. The rationale for including English proficiency in second language reading is due to the trailblazing research on Linguistic Interdependence Hypothesis (LIH) and Linguistic Threshold Hypothesis (LTH) postulated by Clark in 1979 (Bernhardt, 2005; Cui, 2008; Jiang, 2011; Park, 2013).

Simply put, the LIH argues that L1 reading ability is transferable to L2 reading while the LTH stipulates such corollary only if students pass a certain level of proficiency (Cui, 2008; Jiang, 2011; Park, 2013). Yet, it is still debatable whether or not the L1 reading ability can be transferred directly to L2 reading comprehension without any sufficient threshold on English proficiency.

In a study examining the role of L1 reading, L2 knowledge and L2 reading, it was found that the low and the high group of English reading (n=2,666) treated differently when they were dealing with English reading comprehension. This typically turned out that the contribution of Korean reading ability to English reading comprehension was significant and bigger than that of English knowledge for the low group of English reading (Park, 2013). However, students in the high group of reading tend to employ their L2 knowledge rather than their L1 reading ability.

In contrast to Park (2013), Jiang (2011) reveals that L2 language proficiency accounted for 27% - 39% of the variance in L2 reading comprehension, while L1 literacy accounted for less than 6% of the variance. This implies that English proficiency plays a significant role in L2 students' reading comprehension compared to their L1 skills. Due to this inconsistency, a further study investigating the role of English proficiency taught by a reading strategy (i.e. PRWR) experimentally is worthwhile.

With reference to the context previously, it is expressly sketched that the advance of knowledge is prevalent in literature thereby demanding rudimentary literacy skills (i.e. reading). Therefore, attempts to trigger reading ability (e.g. SQ3R, PQRST, and PANORAMA) in both L1 and L2 were under the sun. Notwithstanding such attempts to bolster reading comprehension, students' skills both in L1 and in L2 reading were still weak due to the other factors such as English proficiency. Furthermore, since it is believed that English proficiency contributed to L2 reading comprehension as discussed in the LTH notion, such scrutiny in academic content-area reading experimentally across levels (high and low) is noteworthy. Moreover, the non-English department students were overwhelmed by an immense amount of literature, and thus curative tactics (i.e. PRWR reading strategy) in reading were highly necessary. All in all, this study empirically aimed at substantiating the effect of the PRWR reading strategy on academic content-area reading comprehension of non-English department students across English proficiency.

C. Research Methodology

The population of this study was all students (n=177) at the Department of Management in a state university in Malang, Indonesia, consisted of five classes ranging from A to E. In the interest of the subjects of the study, homogeneity testing run by

SPSS 18 software program was carried out, and thus two classes (n=58) were homogeneous (.773). It was homogenous in the sense that the obtained *p-value* was greater than the level of significance .05. (Sig .773 > .05).

Further, to decide between the experimental and the control groups, random selection was employed, and hence a coin toss was carried-out. Such a choice was due to the unlikelihood of conducting random sampling. The random selection was conducted by throwing the coin 20 times in total, and each lecturer of class C and E had to decide whether the head or the tail. The decision of the experimental and the control groups, in turn, was based on the coin's head and tail emergences. If the coin's head came up more than its tail, the group was categorized as the experimental and the contrary.

Based on the coin toss, class C served as the experimental group and class E acted as the control group. The experimental group consisted of 35 students and the control group comprised 23 students. The rationales for selecting the population and the subjects of the study were due to accessibility, availability, and suitability reasons.

First, it was accessible and available in the sense that the students had passed English course 1 offered by the university in the third semester. Therefore, this study was conducted as the continuation of their English course 1. Second, although many non-English department universities oblige its students to pass English course as one of the compulsory subjects, however, not all of them provide such a course in both semesters (even and odd). Third, it was suitable in the sense that both the university and the study program, according to data from National Accreditation Institute (BAN-PT), are accredited as very good (grade A) ("Badan Akreditasi Nasional Perguruan Tinggi," 2016).

The subjects of this study in turn involved in the teaching and learning activities. The experimental group was taught by the PRWR reading strategy and the control group was taught by Translation and Reading Aloud (TRA). To assess the effect of the treatment, a 2x2 factorial quasi-experimental with posttest only was deployed (Ary, et al., 2010). The rationale for employing the 2x2 factorial quasi-experimental was due to the school settings.

To measure students' reading comprehension, a set of reading comprehension test was developed. The test has been expert validated and tried out. There were 30 items in the posttest measuring students' reading comprehension in terms of word attack skills and text attack skills. The English proficiency in turn, was tested under the auspices of an English institute in Malang, Indonesia. In other words, the score of students' English proficiency was officially obtained from the institute.

D. Findings

Findings of the study are presented in this section. First, it starts from the presentation of the effect of the PRWR reading strategy compared to Translation and Reading Aloud (TRA) on students' reading comprehension in academic content-area reading. Second, it describes further across students' English proficiency levels (high, low).

1. **The Difference of Posttest for Reading Comprehension between the Experimental and the Control Groups**

    To examine the effect of the PRWR reading strategy on students' reading comprehension between the experimental and the control groups, the non-parametric statistical computation was carried out by running Mann-Whitney U test. Such a particular employment was due to the unfulfilled assumptions of the normality testing in the experimental and the control groups (.05 and .037). To test the first hypothesis, both the null and the alternative hypotheses were first drawn as follows:

H_0 : There was no significant difference between students taught by PRWR Reading Strategy in academic content-area reading and those taught by Translation and Reading Aloud

H_1 : Students taught by PRWR reading strategy in academic content-area reading have better reading comprehension than those taught by Translation and Reading Aloud.

In addition, it could also be drawn based on the obtained *p-value* (Salkind, 2000, p. 138) in the following.
p-value ≥ .05 = the null hypothesis accepted
p-value ≤ .05 = the null hypothesis rejected

Table 6. The Difference of Posttest for Reading Comprehension
in the Experimental and the Control Groups

	Posttest_Score
Mann-Whitney U	277.500
Wilcoxon W	553.500
Z	-2.000
Asymp. Sig. (2-tailed)	.045

Table 6 demonstrated that the obtained *p-value* from the Mann-Whitney U Testing was .045, meaning that the obtained *p-value* was less than the level of significance .05 (Sig .045 < .05). This means that the null hypothesis was rejected and the alternative hypothesis was accepted. In addition, this implied that there was significant difference between students taught by employing the PRWR reading strategy and those taught by Translation and Reading Aloud in academic content-area reading comprehension.

2. **The Difference of Posttest for Reading Comprehension of Students with High English Proficiency in the Experimental and the Control Groups**

    Similarly, in the interest of answering the second research question related to the effect of the PRWR reading strategy with high proficient students in the experimental and control groups, the non-parametric statistical computation was run. The rationale for the employment of the non-parametric one was due to the results of the homogeneity testing (.011) for the high English proficiency in both groups. Both the null and the alternative hypotheses were first drawn as follows:

H_0 : There is no significant difference between students with high English proficiency taught by PRWR reading strategy in academic content-area reading and those taught by Translation and Reading Aloud.

H_1 : Students with high English proficiency taught by PRWR reading strategy in academic content-area reading have better reading comprehension than those taught by Translation and Reading Aloud.

Similarly, the formulation of the above null and alternative hypotheses could be interpreted on the basis of the obtained *p-value* as follows:
p-value $\geq$ .05 = the null hypothesis accepted
p-value $\leq$ .05 = the null hypothesis rejected

Results of the Mann-Whitney U testing on the difference in students' reading comprehension with high English proficiency in the experimental and the control groups are explicable in Table 3.12.

Table 7. The Difference of Posttest for Reading Comprehension of Students with High English Proficiency in the Experimental and the Control Groups

	Posttest
Mann-Whitney U	14.000
Wilcoxon W	69.000
Z	-3.320
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.001[a]

Table 7 shows that the obtained *p-value* from the Mann-Whitney U testing was .001, meaning that the obtained *p-value* was lower than the level of significance .05 (sig .001 < .05). This also means that the null hypothesis was rejected and the alternative hypothesis was accepted. Simply, students with high English proficiency taught by the PRWR reading strategy have better reading comprehension in academic content-area reading than that of taught by Translation and Reading Aloud.

3.   The Interaction between Reading Strategy and English Proficiency
Eventually, in the interest of answering the last research question about the existence of interaction between the reading strategy and English proficiency, the two-way ANOVA was run. The statistical hypotheses of the fourth research question were formulated in the following.
H_0 : There is no interaction between the reading strategy and English proficiency.
H_1 : There is interaction between the reading strategy and English proficiency.
Another way to formulate the research hypothesis is illustrated as follows:
p-value $\geq$ .05 = the null hypothesis accepted
p-value $\leq$ .05 = the null hypothesis rejected

Table 8. Results of the Interaction between the Reading Strategy and English Proficiency

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	7828.906[a]	3	2609.635	27.291	.000
Intercept	215732.930	1	215732.930	2256.106	.000

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Groups	1703.797	1	1703.797	17.818	.000
TOEFL	5967.849	1	5967.849	62.411	.000
Groups * TOEFL	17.230	1	17.230	.180	.673
Error	5163.577	54	95.622		
Total	239430.000	58			
Corrected Total	12992.483	57			

Table 8 shows the results of the interaction between the reading strategy and English proficiency. This turned out that the obtained *p-value* was .673, meaning that it was greater than the level of significance .05 (sig .673 > .05). This means that the null hypothesis was accepted and the alternative hypothesis was rejected, and thus there was no interaction between the reading strategy and English proficiency. In other words, the proficiency level of students did not affect the student comprehension in the academic content-area reading, i.e. be they taught using the PRWR reading strategy or Translation and Reading Aloud. More specifically, the PRWR reading strategy is applicable to students with different proficiency levels.

E. Discussions

As shown in the results of statistical analyses, it turned out that there was significant difference (.045) between students taught by the PRWR reading strategy and those taught by Translation and Reading Aloud in academic content-area reading comprehension. This implied that students taught by the PRWR reading strategy outperformed those taught by Translation and Reading Aloud. This piece of evidence confirms previous notion (i.e. Langan, 2002) stating that the act of previewing, reading, writing, and reciting is suitable for students at the non-English department since the last two phases (WR) of the strategy dealing more with academic settings. It also verifies the notion of paraphrase effect (Perfetti & Stafura, 2014) stating that the paraphrase can update the situation model modestly while maintaining coherence. In other words, the paraphrase effect reflects the integration of the words and passages into comprehension.

In addition, it also supports the findings of previous relevant studies (i.e. Graham & Hebert, 2011; Haeriyanto, 2012; Miqawati & Sulistyo, 2014; Winarsih, 2013) revealing that teaching students how to preview, read, write and/or make summary significantly enhances their reading comprehension. To bear in mind that the subjects of the relevant findings previously were adult students ranging from senior high school to tertiary level of education.

However, it was different from Fitriani's (2015) study indicating that the PANORAMA reading strategy was insignificant with its relation to Translation and Reading Aloud. This is logical in the sense that her subjects of the study were junior high school students. Commonly, the age of junior high school students ranges from 13 to 15 years old. Such this range of ages is categorized into adolescence. The difference in individual term (i.e. adolescence and adult) seems to be in line with (William and Burden, 1997) stating that the strategy use is affected by context, culture, and differences between individuals.

Further, what makes the findings of this study different from Fitriani's (2015) is due to the instruction that carried out to the experimental and the control groups. The instruction employed to the control group in this study was not in the form of Exploration, Elaboration and Confirmation (EEC), but reading the passages aloud, translating some difficult words to *Bahasa Indonesia,* and correcting students' error orally. It also was verified by the factor contribution from the reading strategy (A) in this study, which were 91.34. The instruction run towards the experimental and the control groups in Fitriani's (2015) study were in the form of EEC, however. In other words, the explanation as to why such ineffectiveness occurred in Fitriani's study was due to similar instruction in the experimental and the control groups.

Secondly, this study revealed that students with high English proficiency taught by the PRWR reading strategy have better reading comprehension (sig .001 < .005) than that of by Translation and Reading Aloud. Such a piece of evidence is in line with the notion of Linguistic Interdependence Hypothesis (LIH) and Linguistic Threshold Hypothesis (LTH). The LIH argues that L1 reading ability is transferable to L2 reading, and the LTH stipulates that such transference only if students pass a certain level of proficiency (i.e. Cui, 2008; Jiang, 2011; Park, 2013).

This evidence also points to the findings of previous relevant studies (i.e. Jiang, 2011; Park, 2013). In his study on L2 reading, Jiang (2011) revealed that L2 language proficiency accounts for 27% - 39% of the variance in L2 reading comprehension, while L1 literacy accounts for less than 6% of the variance. The explanation as to why students in the experimental group outperformed those in the control group was due to their English proficiency. The highest score of English proficiency in the experimental group was 550 and the lowest was 320.

Further, the highest score of English proficiency in the control group was 480 and the lowest was 347. Since the difference between the highest score in the experimental group and the control group was 70 points, thus it is worthwhile for prospective researchers to conduct further studies examining students' reading comprehension more qualitatively in this high level of English proficiency.

The English Proficiency Index (EPI) 2012 as quoted by Pinner (2013) also confirmed the explanation as to why the high proficient students outperformed the low proficient ones. More specifically, it figures out that Hong Kong and South Korea are ranked as having only 'moderate proficiency' in English, whereas China, Taiwan and Indonesia are marked as having 'low proficiency. This particular situation implies that the more proficient the students in English, the more comprehensible the academic English passages they read. Since the English proficiency plays the role in the students' reading comprehension, thus it is pivotal to expose them to the practice of answering standardized tests in English such as TOEFL and IELTS.

Thirdly, the present study revealed the absence of interaction between proficiency levels and teaching strategy, specifically that the PRWR reading strategy can be implemented in the class of students with different proficiency levels. The English teachers may employ the PRWR reading strategy to their students since such a strategy helps the students to scaffold their comprehension in the form of writing and reciting. As a result, the students will compare and contrast between what have been read and written.

With reference to the findings, several pedagogical implications are drawn. First, it is addressed to the English teachers particularly in the context of foreign language. It is suggested that teaching English to non-English department students should be implemented on the basis of students' needs. Since their needs to comprehend the academic passages in terms of micro reading skills such this study, one beneficial strategy is the PRWR reading strategy.

This kind of strategy is straightforward since students are directly led to the purpose of reading, which is to make inference. One of the ways in making inference in reading is in the form of making summary. Making summary as described by Sulistyo (2011) is not easy since it activates specific summarizing and retelling skills. If the English teachers were successful at equipping their students with this kind of strategy, their students would easily comprehend the academic passages particularly in decoding the meaning in the passage thorough context clues, denotation and connotation, main ideas, stated or implied topics, and factual information in the passages.

It is important to bear in mind that levels of passages' difficulty and varied learning activities play the role in academic content-area reading. Thus, it is pivotal for the English teachers in academic content-area reading to measure their levels of passages' difficulty. The levels of passages' difficulty should be adjusted to the levels of students' English proficiency. Otherwise, the passages would not be comprehensible, and the teaching and learning activities were boring and stressful.

F. Conclusion

Based on the analyses of the findings, some conclusions are drawn. First, the practice of academic content-area reading should equip students with a curative strategy in reading. The curative strategy should cover the purpose of reading. If the purpose of reading was to decode the meaning in passages in terms of micro reading skills (word attack skills, and text attack skills), the PRWR reading strategy had empirically effective in such practice.

Second, it is highly recommended to assess students' English proficiency before the commencement of the academic year. This aims to ascertain their levels of English proficiency so that the teaching and learning activities particularly in the context of academic content-area reading run well.

It is recommended that the English lecturers who are willing to teach academic content-area reading could apply the PRWR reading strategy for the more comprehensible learning. In addition to making the academic passages comprehensible, the English lecturers should measure the English passages they employ in online readability software. This aims to match between students' English proficiency and passages' readability.

To the English curriculum and materials developers, it is recommended that the English syllabus particularly in academic content-area reading, should also consider students' levels of English proficiency as it significantly affects students' comprehension of the academic passages.

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