# Promoting EFL Learners' Critical Thinking on Reading Comprehension

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**Abstract:**

Student Teams Achievement Division is a teaching technique which requires the students to work in group. This technique was proposed by Slavin (1995). Through implementing the STAD technique in teaching reading comprehension and promoting critical thinking, the study investigates: (1) the effectiveness of STAD in teaching reading comprehension; (2) the effectiveness of STAD in promoting critical thinking; (3) the interaction between reading comprehension and the critical thinking achievement.
This study employed the quasi posttest-only design which analyse the posttest score of the subjects since the subjects was assumed to be homogeneous. The subjects were the sophomores of a vocational high school majoring in Pharmacy. The students' achievement were measured by administering two kinds of posttest, reading comprehension and critical thinking.
Based on the statistical inferential by using non-parametric Chi-Square, the findings of the study showed a statistical difference between the experimental group and the control group's reading comprehension and critical thinking. The statistical computation pointed out that the $\chi^2_{observed} > \chi^2_{table}$ (45.034 > 32.671) for the first problem, while in the second problem the same computation was presented (33.322 > 21.026). The results indicated that this study could not accept the null hypothesis for the first problem, which means that STAD is an effective technique to apply. Hence, STAD can be implemented to promote critical thinking through reading comprehension. However, the third statistical computation showed that the *p-value* (0.159) is greater than the critical value (0.05). Therefore, there was no relation between the reading comprehension and the critical thinking skill of the students.

***Keywords*** *:* critical thinking, reading comprehension, STAD

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## Introduction

Most Asian students are believed to be less critical when they are given problem than those of Western (Long, 2003; Egege and Kutieleh, 2004; Elsegood, 2007). Different path of learning being used deemed to be as one of indication of the passiveness of Asian students (Vandermensbrugghe, 2004; Davies, in Elsegood, 2007; Masduqi, 2011). Masduqi, for example, who study about the lack of critical thinking skill related to the general phenomena, claims that in the terms of higher education in Indonesia, students rarely solve problem critically because their previous schools typically applied teacher-centered approach rather than student-centered. Davies (cited in Elsegood, 2007) has conducted a similar study in a wider scope. He found that lecturers and facilitators of South East Asian students often provide feedback that the works of the students were lack of clear critical focus.

The results in some studies, however, overshadow the results of the investigations abovementioned. Exley (2005), for example, has found that Indonesian EFL learners can be stay out of their comfort zone as "passivers", where they can reveal ideas or opinion critically. The study by Littlewood (2000), also investigates how students from eight different countries in Asia reveal that they do not belong to the justification stated by most people. Hence, it is questionable how the criteria of passive and less critical are derived from several research can stereotype Asian learners.

Even though a number of studies related to critical thinking ability of students have been conducted in Australian learners' environment (Egege and Kutieleh, 2004; Vandersmensbrugghe, 2004; Elsegood, 2007) and Iranian students (Fahim and Komijani, 2010; Fahim, Bagherkazemi, and Alemi, 2010; Shokouhi and Pavaresh, 2010; Fahim and Sa'eepour, 2011; Kamali and Fahim, 2011; Fahim and Ahmadian, 2012; Hashemi and Zabihi, 2012; Zarei and Haghgoo, 2012; Fahim and Bagheri, 2012), the meaning of critical thinking is still vague and the awareness of context need to be identified to clear the concept. Benesh (cited in Vandersmenbrugghe, 2004) suggests that critical thinking is a social, historical, and political base of traditional knowledge and orientation search to change learning and society. Different from the definition suggested by Egege and Kutieleh (2004), which is confirmed by Fahim, et al. (2010), critical thinking is the use of analysis, logic, argument structure, and the scientific method.

Critical thinking is a kind of thinking which enables the cognitive aspect of human work, thus it should be reasonable. Ennis (in Marzano et al., 1988) set the goal of critical thinking as to develop people who are fair-minded, objective, and committed to clarity and accuracy. When critical thinking is brought into EFL context, it automatically will led to another aspect namely second language proficiency, which then direct to high order thinking skill involved in Bloom Taxonomy (viz. analyzing, evaluating, creating), which requires high skills and thus should be possessed by students in higher level of education. Analyzing is used to clarify information by examining the claims, assumption, and reasons. Evaluating involves an assessing ability toward the reasonableness of the ideas. Creating means the ability to construct and connect old and new ideas and organize them into one new information. A university is explicitly recognized as a place for higher level of learning (Ismail, et al., 2007). Hence, students are required to be able to utilize the intellectual tools that critical thinking offers (Masduqi, 2011).

Considering the position of critical thinking in EFL in Asian culture, Fahim and Bagheri (2012) stressed the issue of critical thinking in a western concept and its history which points out the development of critical thinking in western world as the conditions were promising". Thus building critical thinking for Asian EFL students should need certain exigencies and this can be attained without careful consideration. In an attempt to prove whether the circumstance is truly needed in Asian EFL classroom, Bajracharya (2010) conducts a study engaging five Nepali pre-service teacher

training programs. The result shows that four of the practitioners agree that in order to activate the students' critical thinking abilities, critical thinking strategies are needed. Thus, it indicates that concerning to the spread of critical thinking, effective instruction is not yet balanced (Reed, 1998).

In an attempt to find the effectiveness of critical thinking applied in EFL, obtaining the data needed to investigate the critical thinking ability by using interview is not the only way. Some studies (Hoffman & Elwin, 2003; Egege & Kutieleh, 2004; Ismail et al., 2007; Fahim, et al., 2010; Kamali & Fahim, 2011; Hashemi & Zabihi, 2012) use different kind of instruments even though most of studies utilize Watson-Glaser Critical Thinking Appraisal Form-A (WGCTA FA) (Hoffman & Elwin, 2003; Fahim, et al., 2010; Hashemi & Zabihi, 2012). Whereas Egege and Kutieleh (2004) tried to implement Introductory Academic Program (IAP) to investigate how critical the international students at Flinders University to address the problems given. While Egege and Kutieleh (2004) utilize IAP to know the students judgments towards the alien culture, (Ismail, 2007) distribute questionnaires, which then followed by collecting data from The Cornell Critical Thinking Test Series (CCTTX), viz. The Cornell Class-Reasoning Level X, which was developed by Ennis in 1964 for several reasons, one of them is to diagnose the level of the students' critical thinking (Ennis 1993).

In order to be able to assess the critical thinking ability, researchers are to conduct sets of test which entails respondents' feedback to demonstrate their critical quality (Alagozlu, 2007). In EFL classroom context, this can be done by involving students' criticality in language skills, which can be applied to any language skill. Even though the result of critical thinking ability mostly involve productive skills (viz. speaking and writing), this might be too difficult for language learner in beginner level, regardless the personal opinion, since, based on the hierarchy of language learning, reading becomes the first skill needs to be achieved before the others (viz. listening, speaking, and writing).

Sheorey and Mokhtari (cited in Fahim et al., 2010) assert "Reading is not a direct process, instead readers need constant practice, test predictions, and use their knowledge of the language to build meaning". Unfortunately, most reading comprehension activity is kept at the level of recalling information or simply finding explicit information within the text. This circumstance happens due to the lack of experience of the language teachers to tackle in depth (Alemi & Ebadi, 2010).

Along with the burgeoning of reading research (Fahim, et al., 2010; Lin, 2010; Fahim & Sa'eepour, 2011; GhorbanDordiNejad & Heydari, 2012; Mohammadi, et al., 2012), in which reading awareness of students tested, this skill requires the learner beyond the text and direct into some formulation of facts, information, and concepts (Alemi & Ebadi, 2010). In regard to the need, critical reading has been expanded into seven criteria (cited in Fahim et. al., 2010), namely (a) identify the reasoning, point of view, defended position; (b) evaluate the reasoning in terms of propositions, logical progression, false premises and flaw; (c) inquire surface appearances and check for hidden assumptions; (d) identify proof in a discourse; (e) evaluate the validity of the proof; (f) identify conclusion; and (g) decide if the proofce supports the conclusions or not.

Reading comprehension can be improved by encouraging the use of cognitive strategy (Wahyono, 2019) and by employing group working. Working in group or commonly called as cooperative learning has been encouraged to students. There are many reasons why cooperative learning becomes the choice of learning activity. One of them is because it encourages students to discuss, argue, explain, and build students understanding and concept on their own way. Students will work in heterogeneous atmosphere, in which they should be able to make a diversity as a resource rather than a problem. Thus, students who are taught by cooperative learning achieve more (Kagan & Kagan, 2009). This present study proposes one of cooperative learning developed by Slavin (1995) namely STAD (Students Teams-Achievement Division). The name itself indicates that the participant of this learning activity should unite to reach a better achievement. In STAD, learners are encouraged to make a group of, which are mixed in terms of performance level, gender, and ethnicity.

Critical thinking and reading comprehension are cases that interrelated one another, as the abovementioned results of studies across culture (Asian and Western). However, none of the study which carries on those aspects were conducted in Indonesian context, more precisely in vocational high school area, which might bring something new toward the investigation. Through this study, those aspects are connected to find out relationship between the strategy in learning language skill and the critical thinking of the students.

Regarding to the fact, the researcher attempted to investigate the effect of STAD on the achievement of reading comprehension and the criticality of vocational high school students which is implemented in teaching activity as well as the possible influence of gender towards the reading comprehension and the critical thinking ability.

## Method

The recent study adopted the quasi-experimental design that involved 59 pharmacy students, 29 of whom were taught using STAD. Meanwhile, the rest 30 students experienced conventional learning, namely reading and translating texts. In order to attain the objective of the study, sets of tests were administered in the beginning and in the end of the treatment. Between the tests, the researchers taught both classes using identic materials, yet in different ways.

Regarding the activities which were done by the students are mostly reading, thus the reading material were analyzed before given to the students. The analysis covered the number of words and the readability of the texts. In order to know the level of the readability of the texts, this presents study employed Flesch-Kincaid Reading ease formula which is available in the Internet (readability-score.com). To interpret the result of reading ease score in the index, the criteria on the following table.

**Table 1 Flesch-Kincaid Reading Ease Scores and Interpretation**

| Flesch-Kincaid Reading Ease Score | Estimated School Grade Completed | Interpretation/Description of Style | Action |
|---|---|---|---|
| 90-100 | 5th | Very easy | Revised |
| 81-90 | 6th | Easy | Revised |
| 71-80 | 7th | Fairly easy | Revised |
| 61-70 | 8th | Standard | Accepted |
| 51-60 | High school students | Fairly difficult | Accepted |
| 31-50 | College students | Difficult | Accepted |
| 0-30 | College graduates | Very difficult | Revised |

(*Adapted from Flesch, 1949*)

All the texts of the teaching materials were measured. There were four texts served as the teaching materials in the materials in this study. The results of the computation of the reading material by utilizing Flesch-Kincaid Reading Ease Score are shown in table 2.

**Table 2 The Result of Flesch-Kincaid Reading Ease Scores and Its Interpretation for the Reading Material**

| Texts | Flesch-Kincaid Reading Ease Score | Estimated Reading Grade | Interpretation/Description Style | Action |
|---|---|---|---|---|
| Text 1 | 64.5 (335 words) | 8th | Standard | Accepted |
| Text 2 | 69.5 (212 words) | 8th | Standard | Accepted |
| Text 3 | 55.8 (237 words) | High School | Fairly Difficult | Accepted |
| Text 4 | 59.4 (219 words) | High School | Fairly Difficult | Accepted |

Since the result of the computation reveals that the texts were accepted, it indicates that the texts can be given to the students in the process of the experimentation directly.

Other than providing appropriate reading texts and test for students in the end of the study, the researcher also provided critical thinking test. Both tests were administered to the

students. The critical thinking test was adapted from The Cornell Critical Thinking Test Form X (CCTTX) by Ennis, et al. due to the validity of the test. Based on the previous researches, the Critical Thinking test has been widely used to test the critical thinking of students. The aim of the administration of the critical thinking test was to examine the students' ability in thinking critically towards particular condition.

## Findings and Discussion

The two groups, the experimental and the control were tested using the same test items. The major data were then calculated by means of statistical procedures and computation. The findings of the study are presented in terms of the result of reading test and critical thinking test during the experiment.

**Students' Reading Comprehension Achievement**

The average of the experimental group overshadowed the control group. This average was calculated from the accumulative score divided by the number of the students in each group. Even though it was found that both groups has the same highest score, that is 84, the minimum score was different. The experimental group's minimum score is 42, while in control group there is 0 score.

**Table 3 The Descriptive Analysis of Students' Reading Comprehension**

| Aspect | Group | |
|---|---|---|
| | Experimental | Control |
| N | 29 | 30 |
| Mean | 65.9310 | 56.8000 |
| Standard Deviation | 8.00862 | 1.716131 |
| Standard Error | 1.48716 | 3.13321 |
| Maximum Score | 84.00 | 84.00 |
| Minimum Score | 42.00 | .00 |

As to meet the assumptions, before the data were analyzed statistically, the researcher tested the normal distribution and the homogeneity of the data obtained. The normality test was done to determine the data distribution, whether the data are normally distributed or not. Based on the Kolmogorov –Smirnov test as well as the Shapiro-Wilk test, it is revealed that the result of the normality test does not meet the assumption, for the significant value for both groups are smaller than the critical value (Experimental group *p-value* = 0.005 < 0.05 and control group *p-value* 0.042 < 0.05). It means that the data are not normally distributed; hence this is not enough to support the assumption.

**Table 4 Result of Homogeneity Test**

| Levene Statistics | df1 | df2 | Sig. |
|---|---|---|---|
| 10.948 | 1 | 57 | 0.002 |

The result of the analysis reveals that the *p-value* of the homogeneity is 0.002, which is smaller than the *alpha* (5%). It means that the different between both groups were significant. In other words, the two groups were not homogeneous.

As the consequence of the violence of the assumption of the study, chi-square non-parametric test was carried out to test the hypothesis of the study. Chi-Square is an inferential statistics that is used to test the hypothesis of a study which employs two or more group and the data are in nominal (Sugiyono, 2010), viz. experimental group and control group posttest score.

The result of the analysis by using chi-square, as it is displayed in table 3.3, shows that the $\chi^2_{observed}$ value with degree of freedom 21 is bigger than the $\chi^2_{table}$ of significant value 5% (45.034 > 32.671). It indicates that the difference between two groups were significant, thus the study cannot accept the null hypothesis, and instead the alternative hypothesis is accepted. In other words, the

experimental group students' who are taught by using STAD achieve better reading comprehension than the group counterpart.

**Table 5 Result of Chi-Square Analysis**

| | |
|---|---|
| **Chi-Square** | 45.034[a] |
| **Df** | 21 |
| **Asymp. Sig.** | .002 |

**Students' Critical Thinking Achievement**

Considering the second concern of the study, the researcher attempted to investigate the effectiveness of the STAD toward the students' critical thinking. Thus this section clarifies the results of the critical thinking test analysis to see if the assumption is supported or violated. However, before the describing the assumption, the descriptive analysis of the means of the students' critical thinking is given in table below. The average of the experimental group achievement in critical thinking test is higher than the control group's achievement. The highest score of the experimental group is 83, while the lowest score is 53, and in the control group, it is found that the highest score is 77 and the lowest score is 0. Manually, the experimental group, which experienced the STAD technique achieve better that the control group. Yet, further inferential is needed to know the exact result.

**Table 6 The Descriptive Analysis of Students' Critical Thinking**

| **Aspect** | **Group** | |
|---|---|---|
| | **Experimental** | **Control** |
| N | 29 | 30 |
| Mean | 70.5862 | 61.5333 |
| Standard Deviation | 9.17885 | 1.534601 |
| Standard Error | 1.70447 | 2.80178 |
| Maximum Score | 83.00 | 77.00 |
| Minimum Score | 53.00 | .00 |

The result of the normality test based on Shapiro-Wilk test and Kolmogorov-Smirnov test show that the *p-values* which are displayed in Kolmogorov Smirnov are 0.001 for the experimental group and 0.000 for the control group, while the results of Shapiro-Wilk test are both 0.000. This shows that the significant value for both group are smaller than the critical value 0.05. Therefore, there is not enough evidence to justify the data follow the normal dispersion.

**Table 7 Result of Test of Homogeneity**

| **Levene Statistics** | **df1** | **df2** | **Sig.** |
|---|---|---|---|
| 1.521 | 1 | 57 | 0.223 |

Based on the table above, it reveals that the Sig. value of Levene statistics is greater than the *alpha* (0.223 > 0.05). In regard to the result of Levene statistics there is not enough evidence to declare that the data are not homogeneous. Since the result of the assumption test (the normality and the homogeneity) was not fulfilled, the data were then calculated by using chi-square non-parametric test.

The result of chi-square computation reveals that the $\chi^2_{observed}$ value with degree of freedom 12 is bigger than the $\chi^2_{table}$ of significant value 5% (33.322 > 21.026). It indicates that empirically, this present study cannot accept the null hypothesis. In other words, STAD is effective technique to teach students' critical thinking.

**Table 8 Result of Chi-Square Analysis**

| | |
|---|---|
| **Chi-Square** | 33.322[a] |
| **df** | 12 |
| **Asymp. Sig.** | .001 |

**Critical Thinking Division**

The result of the critical thinking test shows that there are some students' who got the critical thinking score above the average, which can be assumed that they are critical, and under the critical thinking average, which means the other way around. Out of 59 students from both groups, there are 38 students (64.41%) who score above the class average (63.69), while the 21 students (35.59%) of them got below the class average.

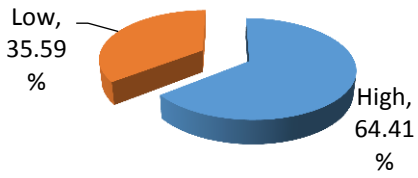



**Figure 1 Critical thinking achievements**

**Relation between Reading Score and Critical Thinking Achievement**

As has been described before, there are different result from the reading comprehension and the critical thinking posttest of the students in both groups. The students' critical thinking test result reveals how critical they are and the finding shows that 38 out of the whole subjects are more critical than another 21 students, this is concluded from the average score that is 63.69. After being grouped into high critical thinking achievers and low critical thinking achievers, the data are matched with the reading comprehension result to see the relation between the two tests.

From the inferential analysis, it is found in Shapiro-Wilk test that the p-value of the high critical thinking score toward the reading comprehension is 0.006 and the low critical thinking score toward the reading comprehension is 0.004, which mean smaller than the critical value 0.05. It indicates that the data do not follow the normal dispersion. Before deciding any further analysis, the homogeneity of the data should be found first.

**Table 9 Result of Test of Homogeneity**

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1.797 | 1 | 57 | .185 |

The result of the analysis shows that the Sig. value is 0.185. This point is higher than the alpha 0.05 (0.185 > 0.05), which indicates that there is not enough evidence to say that the variance is not homogeneous. In other words, the data, empirically, shows that the critical thinking ability of the students toward their reading comprehension is homogeneous.

As the consequence of the violation of the assumption, the data are analyzed by using non-parametric statistics. The non-parametric statistics used in the analysis is Chi-Square of Independence of Categorical Variables, that is statistics analysis of independence categorical variable to see the effects of one variable depend on the value of another variable, in this case it is used to see whether the critical thinking ability of the students of experimental group influenced the reading comprehension or not.

As the result of the statistics shows that a student who got 0 (the lowest reading achievers) reported also achieved low critical thinking, while some students who obtained the three lowest next score can be considered as critical and some are less critical. The students who obtained the highest score (84) performed high critical thinking ability. At a glance this might indicate that the reading comprehension of the students related to their critical thinking ability.

**Table 10 Result of the Chi-Square Test**

| Value | df | Asymp. Sig. (2-sided) |
|---|---|---|
| 27.374[a] | 21 | .159 |

Based on the table, the p-value is 0.159 which is greater than the critical value (0.159 > 0.05). Thus there is proper proof to accept the null hypothesis. In other words, the critical thinking ability of students does not influence the students' reading comprehension.

## Discussion

Developing critical thinking has been considered as a main goal (Tung & Chang, 2009) expected students can make use of well within the society live and check the validity of the information as to create a better personal. It is believed with good critical thinking ability, students can build their cognitive side to compete and have responsibility citizenship in a global life. Hence, the ability of critical thinking has been tried out worldwide, both in western countries and eastern countries, through many ways, includes reading.

Reading is an activity of revealing a meaning through texts. Even though it sounds like a passive skill, reading truly involves very complicated processes (Sulistyo, 2011). The process of reading requires readers to memorize, recall, and reflect on their background experiences to build meanings of the text. Thus, the result of reading needs to be demonstrated to see if the readers are already able to filter the appropriate information, facts, and opinion within the text. Through this kind of reading, the readers activate the critical thinking skill subconsciously.

Upon the aim of this study, which is investigating the effectiveness of a certain teaching technique to teach reading and trigger students' critical thinking skill, called STAD, the findings support that the technique did help the students to have a better reading comprehension compared to those who learn reading comprehension in conventional way. The acceptance of the alternative hypothesis supports the theory of cooperative learning, which technique is adopted in this study, that cooperative learning is effective to teach in any level of education cause, as Kagan & Kagan (2009) asserts "within team work, students learn to synthesize vary ideas into a complete meaningful idea and how to solve problems."

The second consideration is whether STAD technique is effective to trigger the students' critical thinking skill, and the results shows that it is effective. As we can see from the result of the critical thinking test, there are more students in a group which accept treatment, i.e. taught by using STAD technique, who achieved high score of critical thinking test than the number of the comparison group. Besides, the statistical computation also provides the same result. The null hypothesis of this matter cannot be accepted since the chi-square observed is higher than the chi-square table.

The effectiveness of the implementation of the technique toward the teaching of reading comprehension and the critical thinking, however, did not guarantee that those two skills interact each other. The result of the inferential statistic shows that the p-value is 0.159 which is greater than the critical value (0.159 > 0.05). this indicates that the null hypothesis, that there is no interaction between students' reading comprehension and criticality, can be proven. In other words, the student are either construct their criticality outside the reading skill or they have good reading skill even though they cannot interpret the condition surround them critically. This result can be confirmed by the data obtained from the minor instruments.

There is no specific subject or time to teach critical thinking skill. Therefore, this study merged the critical thinking to students' reading skill. It was done so for critical thinking skill cannot

be separated from the human life that makes people have to sort out any information which goes in and find the best supporting evidence ti proof its cogency. Moreover, the subject teacher of the school confessed that so far, the teaching of language skill is limited to the comprehension of short functional text and simple conversation and the teaching technique used was repetition and individual learning.

Although the school did not provide proper time to let the students proof their criticality, the students still manage to train their criticality outside the class. As it is shown in the questionnaire, they have accessible sources outside the school that help them to find some more information. However, there are many of them who do not want to show their criticality and prefer avoiding different opinion with others. This indicates the lack of confident and the critical thinking skill of the students need some training from the teachers.

At the beginning, it was thought that the level of the parents' education might influence the students' criticality. Yet this assumption is wrong. The results of the questionnaires proof that students can provide arguments to others' opinion. It is just the time of exploration of being critical in class and guided-activities which are lack. Some students' confession that they, so far, learn English by repeating the teacher's word or answer very short questions indicates that there was not sufficient opportunity for the students to dig up the critical thinking skill academically at school. Whereas through learning experience provision teachers can increase the students learning motivation (Ehrman, et al., 2003).

There is also an eagerness of the students to work in group that might facilitate them to do some group discussions among peers. However, this idea seems neglected by the teacher since there was never a group activity in class. Students mostly work individually so that they do not have chance to learn another soft skill called critical thinking. The implementation of group work not only let the students to have group discussion but also it contributes to lessen the anxiety of the students.

Reward plays one of the influential factors in fostering language learning. Teachers, therefore, as the ones who are trusted by the parents to teach the children should not forget to give reward to the students who make some improvement in the learning. In fact, the evidence displayed that most of the students reported that their teachers are rarely appraise them in learning activity. Appraisal is one kind of act that motivate the students to learn more, as it is stated by Sardiman (2008) that motivation is a moving power inside the students which ignites the learning activity and cause endurance to it until the goal is reached.

Since the students' parents rely their children's learning at school, the school, more specifically the English teachers, should make an attempt to exploit their knowledge and skill of teaching English to help their learners learn English and other skill that might successfully. However, there is evidence proved that the English teachers were not equipped with the knowledge of teaching English so that they frequently came across such problems as the implementation of suitable teaching techniques for students, the variation of instructional materials, and the kind of instructional media. Thus, in one case, the teachers are not still proficient in their field of teaching, but in another case they are requested to teach professionally well in order to make the students good at English.

## Conclusion

the result of the analysis of the data, it can be concluded that the Cooperative STAD teaching technique is effective to teach reading comprehension for vocational high school students compared to the conventional teaching technique. From the very beginning of the calculation, it can be seen from the average of students' posttest score of experimental class (65.93) which is higher than the average of students' posttest score of control group (56.80). This is emphasized the result of the comparison which also proofs the null hypothesis cannot be accepted. Thus, STAD is a worthy teaching technique to use.

Next, it can also be concluded that the STAD technique that was implemented in the study is effective for stimulating the critical thinking skill of the students. Although the study was conducted in a short period of time, the result of the students' critical thinking posttest score differ significantly. The experimental group overshadows the control group achievement, regardless the number of the students who can be considered as critical, based on the average score, which are the same (18 students for each group).

The third point of the concern of the study is the relation between the achievement of reading comprehension and the critical thinking. The result can be concluded that there is no relation between the two aspects. Students might possess the ability of thinking critically, yet that ability did not demonstrate well. In other words, when they are given a chance to show the criticality, they can do it well. Thus the result of the present study is against the statements from some previous researchers that conclude that Asian learners are not critical.

## References


Alagozlu, N. 2007. Critical Thinking and Voice in EFL Writing. *Asian EFL Journal*. 9 (3): 118-136.

Alemi, M. & Ebadi, S. 2010. The Effects of Pre-reading Activities on ESP Reading Comprehension. *Journal of Language Teaching and Research*. 1 (5): 569-577.

Bajracharya, I. K. 2010. Influencing Factors of Critical Thinking in Class Room Teaching. *Education Quarterly*. 1 (1): 1-7.

Egege, S. & Kutieleh, S. 2004. Critical Thinking: Teaching Foreign Notions to Foreign Students. *International Education Journal*. 4 (4): 75-85.

Ehrman, M. E., Leaver, B. L., & Oxford, R. L. 2003. A Brief Overview of Individual Differences in Second Language Learning. *System*. 31: 313-330.

Elsegood, S. 2007. *Teaching Critical Thinking in an English for Academic Purposes Program Using a 'Claims and Supports' Approach*, (Online), (http://www.fyhe.com.au/past_papers/papers07/final_papers/pdfs/4e.pdf), retrieved on 10th July 2013.

Ennis, R. H. 1993. Critical Thinking Assessment. *Theory into Practice.* 32 (3): 179-186.

Exley, B. 2005. Learner Characteristics of 'Asian' EFL Students: Exceptions to the 'Norm'. In Young, Janelle, Eds. *Proceedings Pleasure Passion Provocation. Joint National Conference AATE & ALEA 2005*, pages 1-16, Gold Coast, Australia.

Fahim, M. & Bagheri, M. B. 2012. Fostering Critical Thinking through Socrates' Questioning in Iranian Language Institutes. *Journal of Language Teaching and Research*. 3 (6): 1122-1127.

Fahim, M. & Ahmadian, M. 2012. Critical Thinking and Iranian EFL Context. *Journal of Language Teaching and Research*. 3 (4): 793-800.

Fahim, M. & Sa'eepour, M. 2011. The Impact of Teaching Critical Thinking Skills on Reading Comprehension of Iranian EFL Learners. *Journal of Language Teaching and Research*. 2 (4): 867-874.

Fahim, M., Bagherkazemi, M., & Alemi, M. 2010. The Relationship between Test Takers' Critical Thinking Ability and Their Performance on the Reading Section of TOEFL. *Journal of Language Teaching and Research*. 1 (6): 830-837.

Fahim, M. & Komijani, A. 2010. Critical Thinking Ability, L2 Vocabulary Knowledge, and L2 Vocabulary Learning Strategies. *Journal of English Studies*. 1 (1): 23-38.

Flesch, R. 1949. *The Art of Readable Writing*. New York: Harper.

GhorbanDordiNejad, F. & Heydari, M. 2012. On the Relationship between Iranian EFL Students' Critical Thinking Ability and Their Reading Comprehension Micro-Skills. *Philippine ESL Journal*. 9: 24-37.

Hashemi, M. R. & Zabihi, R. 2012. Does Critical Thinking Enhance EFL Learners' Receptive Skills? *Journal of Language and Research*. 3 (1): 172-179.

Hoffman, K. & Elwin, C. 2003. The Relationship between Critical Thinking and Confidence in Decision-Making. *Australian Journal of Advanced Nursing*. 222 (1): 8-12.

Ismail, M. R., Aziz, R. A., & Husin, Z. 2007. *The Use of Critical Thinking Skills among University ESL Students*, (Online), (http://repo.uum.edu.my/3228/1/M2.pdf), retrieved on 14th July 2013.

Kagan, S. & Kagan, M. 2009. *Kagan Cooperative Learning.* San Clemente: Kagan Publishing.

Kamali, Z. & Fahim, M. 2011. The Relationship between Critical Thinking Abillity of Iranian EFL Learners and Their Resilience Level Facing Unfamiliar Vocabulary Items in Reading. *Journal of Language Teaching and Research*. 2 (1): 104-111.

Lin, L. 2010. Senior High School Students' Reading Comprehension of Graded Readers. *Journal of Language Teaching and Research*. 1 (1): 20-28.

Littlewood, W. 2000. Do Asian Students Really Want to Listen and Obey? *ELT Journal*. 54 (1): 31-36.

. Long, C. J. 2003. *Teaching Critical Thinking in Asian EFL Context: Theoretical Issues and Practical Applications*, (Online), (http://www.paaljapan.org/resources/proceedings/PAAL8/pdf/pdf022.pdf), retrieved on 18th July 2013

Marzano, R. J., Brandt, R. S., Hughes, C. S., Jones, B. F., Presseisen, B. Z., Rankin, S. CC., Suhor, C. 1988. *Dimensions of Thinking: A Framework for Curriculum and Instruction*. Alexandria: ASCD Publication.

Masduqi, H. 2011. Critical Thinking Skills and Meaning in English Language Teaching. *TEFLIN Journal*. 22 (2): 185-200.

Mohammadi, E. N., Heidari, F., & Niry, N. D. 2012. The Relationship between Critical Thinking Ability and Reading Strategies Used by Iranian EFL Learners. *English Language Teaching*. 5 (10): 192-201.

Reed, J. H. 1998. *Effect of a Model for Critical Thinking on Student Achievement in Primary Source Document Analysis and Interpretation, Argumentative Reasoning, Critical Thinking Dispositions, and History Content in a Community College History Course*, (Online), (http://www.criticalthinking.org/resources/JReed-Dissertation.pdf), retrieved on 10th July 2013.

Sardiman, A. M. 2008. *Interaksi & Motivasi Belajar Mengajar*. Jakarta: Raja Grafindo Persada

Shokouhi, H. & Parvaresh, N. 2010. Post-adjunct Reading Comprehension Questions and Meaning Construction: A Case of Gender Study. *Journal of Language Teaching and Research*. 1 (1): 8-19.

Slavin, R. E. 1995. *Cooperative Learning 2nd Edition*. Needham Heights: Allyn & Bacon.

Sulistyo, G. H. 2011. *Reading for Meaning: Theories, Teaching Strategies, and Assessment*. Malang: Pustaka Kaiswaran.

Tung, C. & Chang, S. 2009. Developing Critical Thinking through Literature Reading. *Feng Chia Journal of Humanities and Social Sciences*. 19 (1): 287-317.

Vandermensbrugghe, J. 2004. The Unbearable Vagueness of Critical Thinking in the Context of the Anglo-Saxonisation of Education. *International Education Journal*. 5 (3): 417-422.

Wahyono, E. 2019. Correlation between Students' Cognitive Strategies and Reading Comprehension. *Jurnal Studi Guru dan Pembelajaran.* 2 (3): 256-263

Zarei, A. A. & Haghgoo, E. 2012. The Relationship between Critical Thinking and L2 Grammatical and Lexical Knowledge. *English Linguistic Research*. 1 (1): 104-110.