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Developing EFL Learners' Accuracy, Fluency, and Comprehension Using Repeated Reading

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Keywords: Accuracy, Fluency, Comprehension, and Repeated Reading (RP)

Abstract: The present study examines the development of repeated reading (RR) on accuracy, fluency, and comprehension for EFL learners. The participants getting involved in the study were 13 males and 14 females who took extensive reading in a regular class. They read similar type of passages ranges from 311 up to 564 words, with a mean length of 425.46 words for twelve weeks. Pre-test was conducted prior to the treatment by reading out loud and answering the comprehension questions on the passage. Having done the treatment, post-test was administered and the participants did the same way as it was in the pre-test. Data were collected and analyzed using t-test for correlated samples since the data were obtained from the same group. The result showed that there was significant difference between the first and the last post-test since probability was lower than alpha ($p < .05$). There is a tendency in the development of EFL learners' fluency to be steady with slight increase. Yet, the accuracy increased sharply without having detrimental effect on comprehension.

1 INTRODUCTION

The ability of EFL learners to read text fluently and accurately requires much time span to practice and to do it constantly. To be more effective, they should do the activity of reading over and over again. Research on repeated reading has been conducted from time to time and it was Samuels (1979) whose first research pertaining to repeated reading which includes such definition as rereading a short meaningful passage until a satisfactory level of fluency is reached (Samuels, 1979), reread several times both silently and aloud until the reader is able to do so easily (Tagudhi et al., 2004), practice of reading texts again and again until the learner can do so easily, effortlessly and fluently (Wang and Kuo, 2011). In short, repeated reading is classified into two category (i) Assisted Repeated Reading or Repeated Oral Reading, whereby learners read different pieces of text out loud while being guided by the teacher or an audio-taped model; and (ii) Unassisted Repeating Reading or Independent Silent Reading, whereby learners read selected passages silently and independently, both inside or outside the classroom.

To have sound English proficiency, EFL learners need to develop their accuracy, fluency and comprehension. Applying the formulas put forth by

Wang and Kuo (2011), accuracy was measured by means of dividing the number of words read correctly (WC) with the total number of words in passage (Wds) or (WC/Wds). Fluency was measured by multiplying the number of words read correctly (WC) with 60 and divided by the total seconds (t sec) or (WCPM= WC*60/t sec). Fluency, especially in reading according to Naghdipour (2015) has many levels of significance namely word reading fluency, passage reading fluency, extensive reading, and reading rate training glossary and reading comprehension developments. Moreover, she concludes that left to right reading manner affect reading fluency of readers whose language has distinct manner of reading. In her summary, learners with similar L1 reading manner like English are able to read faster with great accuracy and comprehension, the rationale is that the two languages have a lot in common with English system, particularly way of reading that is from left to right. The next is for comprehension, Chang (2012) describes that to gain fluent reading comprehension, the processes of word awareness, 'syntactic parsing', gaining the meaning and make use of memory at work (all of which are considered as lower-level processes) in chorus must be in action mechanically and swiftly. For more fluent reading comprehension, Chang (2012) adds that these lower-

level processes need to be accompanied with higher-level processes which deal with making use of background knowledge, how to comprehend the meaning of a passage better and synthesise passage content.

The present study utilizing repeated reading concentrates more on fluency, accuracy, and comprehension measurement than the general reading comprehension. It involves reading aloud and recording the voice in mobile phones done by each participant. It is believed that it becomes the enrichment to research of RR aloud and recorded. Most studies reviewed in the previous study consider that voice played during reading is either produced by the teacher or audio model to guide reading better. But in this study, the recorded reading audio is used to measure the quality/score of accuracy and fluency of the reading done by the student. Therefore, this voice recorded can encourage more students' autonomy to read passages later on.

2 LITERATURE REVIEW

2.1 Reading

Reading passages in English, as stated by Naghdipour (2015), is considered longer and harder to process with the fact of bumping into novel vocabulary meaning-content collection and formulas in forming sentence or dealing with system of reading manner (either from left or from right). The challenge in reading in either EFL or ESL, is also stated by Gorsuch and Taguchi (2008) that it is a strenuous course of action due to weak ability in identifying lexical items, to tackle this weakness they urge the value for educators in L2 conditions to enhance reading fluency by emphasising more on prompt and precise way in identifying lexical items.

2.2 Extensive versus Repeated Reading

Taguchi, Takayasu-Maass and Gorsuch (2004) clearly depict that in ESL as well as in EFL, there are two nature of reading, namely Extensive Reading (ER) and Repeated Reading (RR). For the first, the nature of reading with certain time intention by individual-driven in deciding what to read especially those with abridged glossary coverage and limited complexity of syntax composition. For the next, namely Repeated Reading or later will be referred to as RR, is novel nature of reading. RR is done by repetitively reading the text somewhat similar to the ones in ER with aim to swell lexis identification. Moreover, they state that in terms of upshot of practicing ER is to enhance glibness

(mechanically identify more and more numbers of lexis), whilst for RR is to develop glibness (RR makes scaffolding exclusively available to EFL and ESL students by frequent practice and non-silent nature of reading) and understanding (proficient in retrieving deeper and greater information in grasping texts narrative).

Taking into account of benefit, ER and RR equally develop self-enthusiasm to read extended texts, raise capacity to guess the meaning of unfamiliar vocabulary, supply rich stimulus functioning as input for L2 learners and develop glibness in both L2 and FL setting (Taguchi, Takayasu-Maass and Gorsuch, 2004). They later mention that RR vigorously aids ER to form glibness thus encourage autonomous reading activity, in the long run the reading can be done more rapidly and pleasant (this pleasing condition opens contact to input and give support to improve proficiency).

2.3 Repeated Reading in EFL Settings

Repeated Reading or later will be referred to as RR, is described by Gorsuch and Taguchi (2008) as reading a passage that is made abridged over and over again aiming in enhancing mechanical and dynamic lexical items identification. As the consequence, the property supporting a conscious mental process can advance for upper array of intellectual capacity course of action. They stated that RR is few and far between engaged in the teaching and learning of foreign language, however, many researchers found that RR boosts reading fluency in EFL condition except that it automatically has similar effect to students' grasp, the rationale is weak way in measuring this later performance. Moreover, Gorsuch and Taguchi (2008) also state that in EFL settings, RR is capable to facilitate and build readers to have own autonomy in learning. They state that their study is proven to be mentous that RR conduct (most is exclusively characterised with repetition) effectually improves the slickness and command of the readers, whilst other studies are lacking success to prove so.

In addition, Gorsuch and Taguchi (2010) offer additional evidence in the form of open-ended, post-reading student reports written over the length of an 11-week RR treatment for 30 young adult EFL learners in Vietnam. They highlighted their previous findings that an assisted repeated reading had positive effects not only on EFL learners' reading fluency but on comprehension as well which was a bit distinctive from that of their 2004 research. The evidence of Gorsuch and Taguchi (2010) indicated that learners became more experienced at processing FL texts and became better readers.

The assistance of RR is also exposed by Taguchi et al. (2004) who prove that RR builds the smoothness of EFL basic students, later they add that it is also true to ESL students. This progress takes place both during and subsequent to the application of RR. Wang and Kuo (2011) classify RR into two actions: reading with support that has its starting point from matters related to human's nerves and reading with no support, namely self-regulating reading. Wang and Kuo (2011) found that these two reading actions by the same token succeed to enhance the smoothness of learners' reading proficiency. They summarise the benefit of RR to efficiently build lexical items which enrich their wealth of glossary knowledge, and also, they show evidence that RR in point of fact heighten reading verbally (smoothness in speaking).

2.4 Fluency

Fujita and Yamashita (2014) categorises fluency into: mechanical/ automaticity, 'accuracy', the speed in reading and 'prosodic structuring'. The first relates to express action in handling, somewhat free of resource, free of intervention issue, senseless, also tough to hold back. The second deals with express, mechanical, comprehensive and precise of 'fluent' lexical identification. Regarding the third, the speed in reading is time in general spent in glib reading with no difficulty in understanding the whole passage. While, for the last, is being capable to properly comprehend chunks in passage and such skill is mastered as the basis of outcome of doing reading with emotion sensitivity.

2.5 Automaticity and Accuracy

RR exceedingly is capable to build up automaticity, exercise pace, and smoothness in spoken coaching (Wang and Kuo, 2011). This mechanical capacity has been accumulated by doing frequent performance and is portrayed that this is so doing with less effort. Moreover, they explain further about the discrepancy between accuracy and automaticity in terms of the time-span of the memory storage. For the first, it is saved in transient memory and for the next; it is saved in long-standing memory.

According to Samuels (1979) in Wang and Kuo (2011), there are three ranks of expertise in automatic lexical identification in RR. The first rank, namely the imprecise step, in which it is intricate for students to detect lexical items even upon ample time is allocated this problem continues. For the second rank, namely the precise step, proficiency to notice lexical items has been built up, with

numerous concentration and endeavour though. The last rank, namely the mechanical step, in which no exertion is required to spot lexical items.

Fujita and Yamashita (2014) mention disagreement about whether text-scope reading speed/fluency correlates to text-scope accuracy in reading to be exact grasp in reading. This study, in response to that argument, reveals that those three aspects of reading, namely accuracy, fluency and comprehension can be developed in synergy. Eventually, it can fill the gap of the studies reviewed above regarding the absence of those three variables at once in a study. Moreover, little studies of Repeated Reading (RR) in review earlier, involving reading aloud and recording the voice in mobile phones. This matter is the focus in this study, which becomes enrichment to research of RR aloud and recorded. Last but not least, all the studies reviewed in this study consider that voice played during reading is either produced by the teacher or audio model to guide reading better. But in this study, the recorded reading audio is used to measure the quality/score of accuracy and fluency of the reading done by the students. In the long run, this voice recorded can encourage more students' autonomy in doing the reading of a passage.

3 RESEARCH QUESTIONS

- Is there a significant difference between before and after using repeated reading (RR) treatment in terms of EFL learners' fluency and accuracy?
- Do EFL learners have better English comprehension after using repeated reading (RR) than before using repeated reading (RR) treatment?

4 HYPOTHESES

- There is a significant difference between before and after using repeated reading (RR) treatment in terms of EFL learners' fluency and accuracy.
- EFL learners have better English comprehension after using repeated reading (RR) than before using repeated reading (RR) treatment.

5 METHODS

The method used in the present study was quantitative approach making use of pre-

experimental research design because there was one group taking place to learn reading using repeated model. Due to the existence of one group and the comparison of two data (pre-test and post-test), the test result of both data was analyzed using dependent sample t-test since it compares the same group by doing the test twice, **pre-test before the treatment and post-test after** the treatment.

5.1 Participants

The participants involved in the present study were 13 males and 14 females ranging from 20 to 22 years old students taking regular extensive reading class in one of Universities in Indonesia. The rationale behind choosing these participants was that they had taken integrated English class subject which required learners to understand language components such as pronunciation, vocabulary, and grammar besides language skills such as listening, speaking, reading, and writing. However, they still got intricacy to master such linguistic features and skills especially in reading texts more fluently, accurately and having more comprehension about them and therefore repeated reading was preferred to apply.

5.2 Materials, and Treatment Condition

The materials used for treatment were taken from a collection of reading material website retrieved from <http://www.rong-chang.com> for intermediate level. This website contains graded readers from Beginner to Intermediate level of English. We chose **English for Intermediate Learners (2)** materials from the passage. The text segments were from 311 to 564 words, with a mean length of 425.46 words. The rationale behind choosing these materials is that they provide not only texts but audio recordings which were beneficial for learners as a model to listen to English native speakers as well. Every student could access on these materials easily since they were free of charge.

EFL learners of English got treatment based on the materials we chose from the website and the activities were done as seen on Table 1.

Table 1: Treatment condition based on the materials chosen.

Meeting	Activities	Researcher	Learners
1	Administering pre-test	Create the test of reading	Do the test
2-5	Giving treatment of reading	Demonstrate and give examples of reading the passage	Produce the sounds as accepted as possible
6-10	Giving treatment of reading	Demonstrate and give examples of listening to the recording of the passage	Produce the sounds as accepted as possible
12	Administering post-test	Create the test of reading	Do the test

5.3 Instruments

The instruments used in this study were (1) reading comprehension test and (2) reading aloud test. The reading comprehension test consisted of 25 question and answer items containing five (5) multiple choice comprehension items, ten (10) yes/no question items, and ten (10) wh-question items. The reading aloud test items was used to measure the EFL learners' fluency and accuracy. This test was categorized as a test of measuring EFL learners' accuracy and fluency producing sound and the sound they produced were recorded and the results of the recordings were measured using NCWM (number of word correct per minute) to measure accuracy and using NCWM (number of word correct per minute) multiplied by 60 seconds to measure fluency. Therefore, it was said to be valid in terms of measuring reading aloud since it really measured what learners supposed to be measured, reading loudly.

5.4 Data Collection and Analysis

The data were collected from the students' reading comprehension test and the students' performances were recorded using their android-based mobile phone. The first test, reading comprehension test, which consisted of 25 question and answer items containing five (5) multiple choice comprehension items, ten (10) yes/no question items, and ten (10) wh-question items was then converted into 0 to 100 band score by dividing the Total Score from Maximum Score and multiplied by 100. The latter test, EFL reading fluency and accuracy, was collected by means of reading while recording the passage. The recordings were collected and it was scored by ratters who were able to listen to the participants' performance at a later time after the test was completed. Next, the result of the transcription was scored to measure their fluency and accuracy using NCWM (number of word correct per minute

divided by number of words multiplied by 100) to measure accuracy and using NCWM (number of word correct per minute) multiplied by 60 seconds to measure fluency. The pre-test and post-test scores were then stored in SPSS and analysed using dependent sample t-test since it compared one group performance twice or within-group comparison.

6 RESULTS

The results of the present study were explicated as follows. First, Table 2 showed descriptive and dependent samples t-test results of the participants' mean scores on different variables of reading fluency, accuracy, and comprehension. **The results indicated that there was a significant difference on repeated reading for fluency measure after the treatment in comparison with before the treatment since probability due to chance was less than 5% and therefore the null hypothesis was rejected.** On average, EFL learners as participants experienced significantly greater fluency using repeated reading ($M = 118.54$, $SD = 15.54$) than before using repeated reading ($M = 107.39$, $SD = 26.40$), $t(25) = -2.880$, $p < .05$.

Second, there was a significant difference on repeated reading for accuracy measure after the treatment compared to before the treatment since there was less than 5% chance that the data was random but greater than 95% chance that the data was significant and therefore the null hypothesis was rejected. The average scores of EFL learners as participants performed significantly greater accuracy after using repeated reading ($M = 97.26$, $SD = 1.10$) than before using repeated reading ($M = 90.65$, $SD = 3.99$), $t(25) = -9.798$, $p < .05$.

Third, there was a significant difference on repeated reading for measuring comprehension after the treatment with respect to before the treatment since probability due to chance was less than 5% and therefore the null hypothesis was rejected. On average, EFL learners as participants experienced significantly greater comprehension after using repeated reading ($M = 78.31$, $SD = 15.62$) than before using repeated reading ($M = 74.92$, $SD = 15.49$), $t(25) = -5.897$, $p < .05$.

Table 2: The summary of Fluency, Accuracy, and Comprehension on EFL learners before and after the repeated reading (RR) treatment ($N=26$, $df=25$)

No	Variables	Scores	Mean	Std. Deviation	t	Sig.*
1.	Fluency	Pre-Test	107.39	26.40	-2.880	.008
		Post-Test	118.54	15.54		
2.	Accuracy	Pre-Test	90.65	3.99	-9.798	.000
		Post-Test	97.26	1.10		
3.	Comprehension	Pre-Test	74.92	15.49	-5.897	.000
		Post-Test	78.31	15.62		

*Significant was set at .05 level.

The distance between pre-test and post on Fluency as seen on Figure 1 was 10.93 NCWM after being multiplied by 60 seconds ($118.45 - 107.53 = 10.93$). So EFL learners' reading fluency was 10.93 words faster after having treatment on repeated reading than before the treatment. It indicated that their words recognition skills increased along the way of the steady repetitions of the same text which enabled them to read more words per minute.

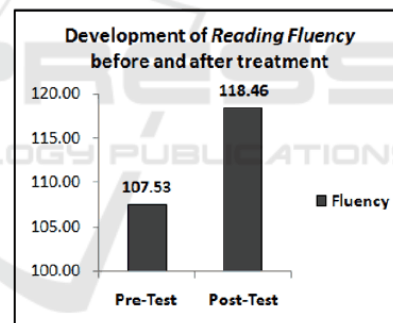


Figure 1: The development of EFL learners on reading Fluency before and after repeated reading treatment.

Accuracy measure as seen on Figure 2 showed that the mean difference between repeated reading treatment and before the repeated reading treatment was 6.61. EFL learners produced more accurate words after repeated reading treatment than before the treatments ($M\text{-after} > M\text{-before}$; $97.25 > 90.65$). So, the indication of having larger percentage on Accuracy (6.61%) was still on the more understanding of word recognition read several times by EFL learners so far.

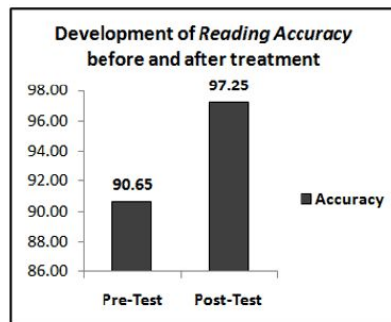


Figure 2: The development of EFL learners on reading accuracy before and after repeated reading treatment.

The distance between pre-test and post on Comprehension as seen on Figure 3 was 3.38 (78.31 - 74.92 = 3.38). So EFL learners' reading comprehension was 3.38 better after having treatment on repeated reading than before the treatment. It indicated that it was not only learners' words recognition skills increased but lexical and syntactical development as well.

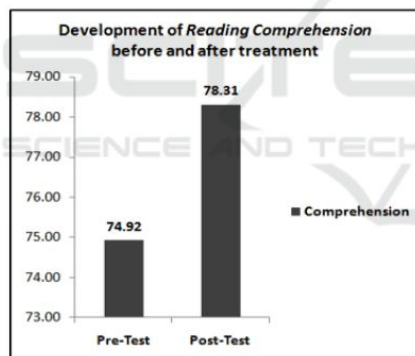


Figure 2: The development of EFL learners on reading Comprehension before and after repeated reading treatment.

7 DISCUSSIONS

The results of the study are elaborated based on the two proposed research questions. The first research question asked, "Is there a significant difference between before and after using repeated reading (RR) treatment in terms of EFL learners' fluency and accuracy?" The results showed that there was a significant difference for both Fluency $t(25) = -$

2.880, $p < .05$ and Accuracy $t(25) = -9.798$, $p < .05$ before and after using repeated reading. These results were consistent with those of Gorsuch & Taguchi (2008; 2010), Wang and Kuo (2011), and Naghdipour (2015) and they argued that learners improved their reading fluency and accuracy after the experiment of using repeated reading. Gorsuch and Taguchi (2008) argued that EFL learners read more slowly on the post-tests than they did on their treatment passages at the end of the study but comprehended more than the control group. The evidence of Gorsuch and Taguchi (2010) indicated that learners became more experienced at processing FL texts and became better readers. Yet, Wang and Kuo (2011) revealed that the large progress of fluency was mostly gained from reading rate development (81 WCPM increase) and undersized input deriving from accuracy (2% accurate rate increase) which is contradiction from the present study obtaining 6.61% of accuracy after the treatment. Somehow, RR was the process leading to an accelerated speed which led to automaticity contributing to oral reading fluency as well. Moreover, Naghdipour' study (2015) focusing on reading directionality mode was reported that learners can read faster with great accuracy and comprehension if their L1 language is in the same direction as in L2 language.

The second research question asked, "Do EFL learners have better English comprehension after using repeated reading (RR) than before using repeated reading (RR) treatment?" The results indicated that EFL learners have better English comprehension after using repeated reading (RR) ($M = 78.31$, $SD = 15.62$) than before using repeated reading ($M = 74.92$, $SD = 15.49$), $t(25) = -5.897$, $p < .05$. The difference between before and after treatment was significant at .05 levels. So EFL learners' reading comprehension was 3.38 better after having treatment on repeated reading. This comprehension result was lower than fluency measurement (6.61%) previously mentioned. However, it did not affect detrimental effect on EFL learners' comprehension since the difference was significant. The result of comprehension in the present study was in line with Chang (2012) who concluded that increasing the reading amount for the time-reading (TR) group improved reading rates and comprehension and increasing the reading rate for the RR group did not have a negative impact on reading comprehension. Thus, to gain fluent reading comprehension, learners gain the meaning and make use of memory at work (lower-level processes) which was necessary accompanied with higher-level processes which deal with making use of background knowledge, how to comprehend the meaning of a passage better and synthesise passage content. However, Fujita and Yamashita (2014)

diverge whether text-scope reading speed/fluency correlates to text-scope accuracy in reading to be exact grasp in reading. They suggested that reading rate can be improved independently from reading comprehension, but the comparison between the two variables showed that some students are in either of the two kinds of in-between groups before reaching full development of these skills. Therefore, students should be instructed how to read both accurately and quickly.

8 CONCLUSIONS

The result of the present study showed that there was significant difference between before and after the treatment of using repeated reading. EFL learners' fluency and accuracy increase sharply after applying repeated reading seen from the results of the study. Also, EFL learners' comprehension boost tremendously after the treatment indicated by not only the development of learners' word recognition, but lexical and syntactical improvement as well. Therefore, repeated reading is effective to be used in teaching learning process either outside or inside the classroom. So, making use of this method in order to develop EFL learners' reading fluency, accuracy, and comprehension simultaneously is worthwhile for teachers as a foreign language.

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REFERENCES

- Chang, A. C., 2012. Improving reading rate activities for EFL students: Timed reading and repeated oral reading, *Reading in a Foreign Language*, 24(1), 56-83.
- Fujita, K., Yamashita, J., 2014. The Relations and Comparisons Between Reading Comprehension and Reading Rate of Japanese High School EFL Learners, *The Reading Matrix*, 14(2) 34-49.
- Gorsuch, G., Taguchi, E., 2008. Repeated reading for developing reading fluency and reading comprehension: The case of EFL learners in Vietnam, *System*, 36(1) 253-278.
- Gorsuch, G., Taguchi, E., 2010. Developing reading fluency and comprehension using repeated reading:

Evidence from longitudinal student reports, *Language Teaching Research*, 14(1) 27-59.

Naghdipour, B., 2015. The impact of L1 reading directionality mode on L2 reading fluency, *The Journal of Asia TEFL*, 12(1), 53-77.

Samuels, S. J., 1979. The method of repeated readings., *The reading teacher*, 32(4), 403-408.

Taguchi, E., Takayasu-Maass, M., Gorsuch, G. J., 2004. Developing reading fluency in EFL: How assisted repeated reading and extensive reading affect fluency development, *Reading in a Foreign Language*, 16(2), 70.

Wang, Y., Kuo, T., 2011. A Study of How Repeated Reading Affects English Recitation Fluency in College Students, *Chinese Journal of Applied Linguistics* 34(2), 18-33.