
**THE EFFECT OF NATURAL READER IN THE TEACHING OF ORAL READING
FLUENCY**

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Abstract

Oral reading fluency is important skill that all readers need to develop, because those who has oral reading fluency are assumed to have the skill of reading comprehension and accuracy in delivering the speech. Natural Reader software is a professional text reader that converts any text into spoken words. In this quasi-experimental research applying non-randomized control group design pretest-posttest, the data used were interval data because they were taken from students' scores of oral reading fluency test. This research was conducted in the English department of a College of Teacher Training and Education in Blitar. Group (1) consisted of 32 students taught using the natural reader software (experimental group) and Group (2) consisted of 35 students taught without using the natural reader software (control group). The control group simply attended in their ordinary classroom without using natural reader software and participated in instruction programs assigned by the lecturer in the classroom. The experimental group attended in the computer lab and listened to the text as it was read by natural reader software. This study revealed that the Natural Reader software could significantly prove that the students was able to read more accurately and at a more appropriate pace using instruction using natural reader software. By using natural reader software, the student could easily have frequently chances to listen the words read by the native speakers as a reader model at normal speed and repeat the copied reading text up to they were able to read fluently as the reader model read the text.

INTRODUCTION

As a global language, English is absolutely important to be learned by non English speaking people in order that they could live and adapt themselves in globalization era. Many Asian countries including Indonesia have responded

seriously to the growing need to foster communicative abilities in English where English is taught as a foreign language (Wati 2011). English, like other languages, has four skills that should be learned, those are listening, speaking, reading and writing. In this chapter, we only discuss the reading skill, more particularly focusing on oral reading fluency.

Oral reading fluency is important skill that all readers need to develop, because those who has oral reading fluency are assumed to have the skill of reading comprehension and accuracy in delivering the speech. The fundamental link between reading fluency and comprehension, especially in students who struggle with reading, may have been new news to some teachers (Pikulski &Chard, 2005). Moreover, according to the report of the National Reading Panel (National Institute of student Health and Human Development, 2000), many teachers and reading specialists are now focusing on the development of their students' fluency skills. Rasinski (2004) states that reading fluency is dealing with the elements of accuracy in speech, appropriate speed, and phrasing and expression. she also states that if a reader can gain control over the surface level reading, then he or she can gain a deeper understanding of the meaning embedded in the text. The goal would be not only to increase reading fluency but also to increase the readers' level of comprehension.

Current research shows that when a student reads the same passage over and over, the number of word recognition errors decrease, reading speed increases, and oral reading expression improves. Consequently, reading comprehension improves. Research also indicates that a student's fluency highly correlates with his/her scores on standardized reading comprehension tests (Ward, M.A.T, 2005). A student's accuracy and speed in reading aloud is an obvious and readily observable indicator of that student's reading ability. Reading fluency is an essential component of a student's global reading skills (National Institute of student Health and Human Development, 2000). Furthermore, up through grade 3, reading fluency is arguably the best predictor of future reading success (Hosp, Hosp, & Howell, 2007).

Rasinski (2004) provides an analogy for understanding how reading fluency is important from public speaking. In his opinion, fluent public speakers embed in their voices some elements that are associated with reading fluency, namely

accuracy in speech, appropriate speed, and phrasing and expression. The speaker's use of these aspects of fluency facilitates the listener's comprehension. Speaking in appropriate phrases, emphasizing certain words, raising and lowering volume, and varying intonation help the listener understand what the speaker is trying to communicate. Fluency is the ability to read a text accurately, quickly, and with expression. Fluency is important because it provides a bridge between word recognition and comprehension.

When fluent readers read silently, they recognize words automatically. They group words quickly to help them gain meaning from what they read. Readers who have not yet developed fluency read slowly, word by word. Their oral reading is choppy. Because fluent readers do not have to concentrate on decoding the words, they can focus their attention on what the text means. They can make connections among the ideas in the text and their background knowledge. In other words, fluent readers recognize words and comprehend at the same time. Less fluent readers, however, must focus their attention on figuring out the words, leaving them little attention for understanding the meaning of text.

Reading fluency is gaining new recognition as an essential element of every reading program, especially for students who struggle in reading. Reading fluency is one of the defining characteristics of good readers, and a lack of fluency is a common characteristic of poor readers. Differences in reading fluency not only distinguish good readers from poor, but a lack of reading fluency is also a reliable predictor of reading comprehension problems (Stanovich, 1991, cited in Hudson, Lane, & Pullen, 2005).

The following rubric can be used to rate reader fluency. It consist of four areas which include expression and volume, phrasing, smoothness, and pace (Rasinski 2004). In term of expression and volume, a fluent reader reads with good expression and enthusiasm throughout the text. He or she also varies expression and volume to match interpretation of the passage. In term of phrasing, a fluent reader generally reads with good phrasing, mostly in clause and sentence units, with adequate attention to expression. In term of smoothness, a fluent reader generally reads smoothly with some breaks, but resolves word and structure difficulties quickly, usually through self-correction. Finally, in term of pace, a fluent

reader also consistently reads at conversational pace, appropriate rate throughout reading.

The minimum score for each area is 1 and the maximum score is 4, thus the final score ranges from 4 -16. Generally, a score below 8 indicate that fluent may be a concern. Score of 8 or above indicate that the student is making good progress in fluency. The rubric for scoring fluency can be seen in Appendix 1

The steps to promote reading fluency in the classroom Using Natural Reader Software can be broken down into motivation, practice, modeling, and help.

Step 1. Motivation. It is essential to motivate students to want to read. To accomplish this, teachers must provide frequent opportunities for students to listen to stories or passages read by the natural reader and they should read to others. Reading materials that sparks students' individual interest is more likely to encourage them to want to read. Including different genres of reading material in the classroom reading experience is fundamental to building students' interest.

Step 2. Practice. Provide plenty of time for students- after they have listened the stories or passages read frequently by the natural reader- to practice reading and do repeated readings of the same stories or passages. It is a good idea to use recorder devices and have students record themselves. *Choral reading* (everyone in the class reads together) and *partner reading* (one student reads with another) will also spice up the reading routine in the classroom.

Step 3. Modeling. The natural reader should model fluent reading every day and the teacher encourage students to practice doing the same. Students who struggle with basic decoding skills may benefit from *echo reading* where the natural reader reads a short 3-5 word phrase and students echo the same phrase. By using this method, the natural reader is modeling and allowing emerging readers to practice, all at the same time. This is an effective way of increasing students' confidence levels, as well. It is suggested that the position of natural reader could be changed by the teacher if she or he has good oral reading fluency.

Step 4. Help. Teachers should assist in developing self-correction skills by encouraging students to listen to themselves read and monitor their own reading. After reading a selection, teach students to ask themselves, "Did what I just read make sense?" It is also important for teachers to demonstrate to students how to

utilize illustrations, graphs, and captions to help make sense of what they are reading.

Although oral reading fluency is absolutely important because it has strong relationship with the reading comprehension, it is not specifically stated in the syllabus of the English department of a collage of teacher training and education at Blitar Indonesia. However, it is involved in the teaching of reading comprehension where oral reading fluency is counted as a minor concern. Allington (1983 cited in Rasinski, 2004), states that reading fluency has been the neglected goal of the reading program. He also states that schools, teachers, school administrators, textbook authors, teacher preparation programs, and others simply did not view reading fluency as an important issue for reading education. This might be one of the causes of the students' failure on comprehending the reading text. Therefore, this chapter is aimed at examining whether natural reader software give better improvement on foreign language learners' oral reading fluency.

METHOD

This study applied the quantitative research for it concerned with certain numbers of variable and numerical data. The data used in this study was interval data because they were taken from students' scores of oral reading fluency test. Meanwhile, the research method of this study was quasi-experimental research applying non-randomized control group design pretest-posttest (Ary 2010). There were some reasons for taking this design. First, the research was conducted without changing the setting of the class. Moreover, the researcher only collaborated with lecture of reading for doing this study to create the natural condition of the class, and to avoid the students to feel being observed which could cause the extraneous variable. Then the two classes used in this research had been separated long before the researcher conducted the research. Finally, the research was executed using time schedule of the lecture arranged by the institution.

The subjects of the research were the students of English department of a College of Teacher Training and Education in Blitar, Indonesia. Group (1) consisted of 32 students taught using the natural reader software (experimental group) and Group (2): consisted of 35 students taught without using the natural reader software (control group). The control group simply attended in their ordinary

classroom without using natural reader software and participated in instruction programs assigned by the lecturer in the classroom. The experimental group attended in the computer lab and listened to the text as it was read by natural reader software. The design of this study is shown in table 1

Table 1. Non-randomized control group pretest-posttest design

Group	Pre-test	Treatment	Post-test
Control	Y1	-	Y2
Experiment	Y1	X	Y2

Y1 : Observation in Pre test (Test is given before treatment)

Y2 : Observation in Posttest (Test is given after treatment)

X : Treatment of Natural Reader

Natural Reader software is a professional text reader that converts any text into spoken words. The program is very simple to use: select the text, then click the 'Play' button. The scoring of a reading probe is straightforward. The examiner first determines how many words the reader actually attempted during the 1-minute reading sample. On the completed probe in Figure 1, for instance, the bracket near the end of the text indicates that the student attempted 48 words before his time expired. Next, the examiner counts up the number of errors made by the reader. On this probe, the student committed 4 errors. By deducting the number of errors from the total words attempted, the examiner arrives at the number of correctly read words per minute. This number serves as an estimate of reading fluency, combining as it does the student's speed and accuracy in reading. So by deducting the errors from total words attempted, we find that the student actually read 44 correct words in 1 minute

Sumertime! How lovely it was in the country, with	(9)
the wheat standing yellow, the oats green, and the hay all	(20)
stacked down in the grassy meadows! And there went the stark —	(31)

on his long red legs, chattering away in Egyptan , for	(41)
he had learned that language from his] mother. The fields and	(52)
Total read words	(48)
Error	(4)
Correctly read words	(44)

Figure 1: Example of a scored reading probe

When a student skips several connected words or even an entire line during a reading probe, that omission creates a special scoring dilemma. An omission, after all, is considered to be a single error of tracking, no matter how many words were skipped at one time. However, if all words omitted in a line were individually counted as errors, the student's error rate would be greatly inflated. The solution is for the examiner to subtract all but one of the words in each omission before computing the total words attempted.

Let's see how that score adjustment would work. On the completed probe in Figure 2, the student omitted the text of an entire line while reading aloud. The examiner drew a line through all the connected words skipped by the student in that omitted line of text. Because a total of 11 words were omitted, the examiner drops 10 of those words before calculating the total words attempted.

When calculating the number of words the student attempted to read, the examiner notes that the student reached word 48 in the passage. Ten words are then deducted from the omitted lines to avoid inflating the error count. The adjusted figure for total words attempted is found to be 38 words. The student committed 5 errors (4 marked by slashes and 1 omission). These errors are subtracted from the revised figure of 38 total words attempted. Therefore, the number of correctly read words in this example would be 33 (see Figure 2)

Sumertime! How lovely it was in the country, with	(9)
— — — — —, — — — —, — — — —	(20)

stacked down in the grassy meadows! And there went the stark —	(31)
on his long red legs, chattering away in Egyptan , for	(41)
he had learned that language from his] mother. The fields and	(52)
Total read words	(48)
Error	(5)
Omission Error	(10)
Correctly read words	(33)

Figure 2: A reading probe marked for words omitted

In the analysis, Since non-randomized pretest-posttest control group design was used in this research, the researchers applied ANCOVA formula to test the hypothesis. Pallant (2000) states that ANCOVA can be used when two group are involved in pretest/posttest design (e.g., comparing the impact of two different intervention , taking before and after measure of the groups). Further he says that the scores of pretest are treated as a covariate to control for pre existing differences between groups. ANCOVA is also handy when unable to random assignment of subject to the different groups is impossible, but existing groups are used. As these groups may differ on a number of different attributes, ANCOVA can be used in an attempt to reduce some of these differences (Stevens, cited in Pallant 2000). In order to gain accurate and correct data, the researcher had calculated the data by using SPSS for window version.

FINDINGS

Before conducting an ANCOVA, the researcher had done two assumption testing those were: b) testing the homogeneity of regression slopes and b) testing of equality of variance

1. Testing the homogeneity of regression slopes

Tests of Between-Subjects Effects

Dependent Variable:POSTTEST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	244586.125 ^a	3	81528.708	35.425	.000
Intercept	213894.327	1	213894.327	92.939	.000
MEDIA	22482.255	1	22482.255	9.769	.003
PRETEST	284.886	1	284.886	.124	.726
MEDIA * PRETEST	65.030	1	65.030	.028	.867
Error	144991.069	63	2301.446		
Total	2629316.000	67			
Corrected Total	389577.194	66			

a. R Squared = .628 (Adjusted R Squared = .610)

The homogeneity of regression slopes test was used to evaluate the interaction between the covariate and the factor (independent variable) in the prediction of the dependent variable. Pallant (2000) explains **if** the interaction is significant, the result of ANCOVA are not meaningful and ANCOVA should not be conducted. If the significant level for the interaction is less than or equal to 0.05, it means that the interaction is statistically significant, indicating that the assumption is violated. In accordance with the above data taken from "**Media * Pretest**" the significant value was 0.867 which was greater than 0.05. it was proved that the assumption of homogeneity of regression slope was not violated. Based on this finding ANCOVA analysis could be proceeded.

2. Levene's Test of Equality of Error Variances

Levene's Test of Equality of Error Variances^a

Dependent Variable:POSTTEST

F	df1	df2	Sig.
1.346	1	65	.250

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + PRETEST + MEDIA

Levene's Test of Equality of Error Variances is used to check whether or not the assumption of equality of variance is violated. If the Significance value is greater than 0.05 the variances are homogenous, however if this value is smaller than 0.05 this means that the variances are not homogenous or in other words, the variances are different and that the assumption of equality of variances is violated (Pallant 2000, chapter 20: 11). In this case the variances were homogenous, or the assumption of equality of variances was not violated, because the Sig. value was 0.250 which was greater than 0.05

As Pallant (2000) states, If the Sig. value is less than 0.05, than the groups (Natural Reader and Without Natural Reader) differ significantly. Based on the above table (labeled Media on the SPSS output), evaluates the null hypothesis that the population adjusted means were equal. The results of the analysis indicated that the null hypothesis were rejected, $F(1, 64) = F106.786, p = 0.000 < 0.05$. The test assessed the differences among the adjusted means for the two groups, which were reported in the Estimated Marginal Means box as 124.623 without natural reader which was less than 246.507 for Natural Reader. (See Appendix 2 for the Result of Analysis of ANCOVA and Estimated Margin Means)

Based on the Estimated Marginal Means, the alternative hypothesis saying that the students who were taught using Natural Reader achieve better Oral Reading Fluency than those who were taught without using Natural Reader was accepted, because the mean score for Natural Reader was 246.507, which was much greater than 124.623 for without Natural Reader

Conclusion

This study obviously revealed that the Natural Reader software could significantly prove that the class of the fifth semester reading students of a collage of teacher training and education Blitar was able to read more accurately and at a more appropriate pace using the fifth semester level text after 10 meetings of instruction using natural reader software. By using natural reader software, the student could easily have frequently chances to listen the words read by the native speakers as a reader model at normal speed and repeat the copied reading text up to they were able to read fluently as the reader model read the text. These results was also similar to those of a study conducted by Roundy and Roundy (2009) that explain that a high level of automaticity is attained as a result of repeated cycles of reading. Thus, oral reading fluency instruction does improve overall reading proficiency at all grade levels.

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APPENDIX 1: RUBRIC FOR SCORING READING FLUENCY

	1	2	3	4
Expression and Volume	<p>Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend.</p>	<p>Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend.</p>	<p>Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend.</p>	<p>Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage.</p>
Phrasing	<p>Reads word-by-word in a monotone voice.</p>	<p>Reads in two or three word phrases, not adhering to punctuation, stress and intonation.</p>	<p>Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation.</p>	<p>Reads with good phrasing; adhering to punctuation, stress and intonation.</p>

<p>Smoothness</p>	<p>Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage.</p>	<p>Reads with extended pauses or hesitations. The reader has many “rough spots.”</p>	<p>Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures.</p>	<p>Reads smoothly with some breaks, but self-corrects with difficult words and/or sentence structures.</p>
<p>Pace</p>	<p>Reads slowly and laboriously.</p>	<p>Reads moderately slowly.</p>	<p>Reads fast and slow throughout reading.</p>	<p>Reads at a conversational pace throughout the reading.</p>

APPENDIX 2: RESULT OF ANCOVA AND ESTIMATED MARGINAL MEANS

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
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Corrected Model	244521.096 ^a	2	122260.548	53.942	.000
Intercept	995073.718	1	995073.718	439.035	.000
PRETEST	847.592	1	847.592	.374	.543
MEDIA	242030.590	1	242030.590	106.786	.000
Error	145056.099	64	2266.502		
Total	2629316.000	67			
Corrected Total	389577.194	66			

a. R Squared = .628 (Adjusted R Squared = .616)

Estimated Marginal Means

MEDIA

Dependent Variable:POSTTEST

MEDIA	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
NATURAL READER	246.507 ^a	8.473	229.580	263.433
WITHOUT NATURAL READER	124.623 ^a	8.097	108.447	140.798

a. Covariates appearing in the model are evaluated at the following values:
PRETEST = 120.12.