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Procedia - Social and Behavioral Sciences 70 (2013) 1778 – 1786

Procedia
Social and Behavioral Sciences

Akdeniz Language Studies Conference 2012

Repeated reading effect on reading fluency and reading comprehension in monolingual and bilingual EFL learners

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Abstract

This study aims to investigate how repeated reading can affect reading fluency and comprehension among monolingual and bilingual EFL students. It describes an 8-week quasi-experimental RR study carried out with monolingual and bilingual university level Iranian learners of English using improved reading comprehension testing procedures. Results suggested that the experimental group (n= 10 monolingual and n=10 bilingual) in general gained in reading fluency, and comprehended significantly more than the control group (n = 20). Conversely, the bilingual comprehension performance was significantly different and higher than monolinguals, although no significant differences have been found among monolingual and bilingual fluency.

Keywords: Fluency; word recognition; EFL reading; bilingual; monolingual

1. Introduction

Reading is an important skill in L1, L2 and FL settings and includes the laborious process (Anderson, 1999; Jensen, 1986). It should be noticed that reading in L1 is somehow in contrast with reading in L2/FL settings. Since L1 readers have learned their mother tongue orally before learning to read, and they are enough exposed to language, but L2/FL readers oral language and reading development occur simultaneously, and their contact with language data is so limited, and that is why reading in L2/FL is

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doi:10.1016/j.sbspro.2013.01.253

laborious process and learners must go through hardship to develop their own reading fluency and comprehension.

In the past decade, there has been sustained interest in promoting reading as a significant and viable means of language development for second and foreign language (L2 and FL) learners (Day and Bamford, 1998; Krashen, 1995). This is especially the case in English as a foreign language (EFL) settings in which sources of L2 input are limited (Gebhard, 1996; Redfield, 1999). A large number of FL/L2 readers show slow and effortful reading process which is as a result of underdeveloped word recognition skill of FL/L2, being the lower level process of reading in which readers access word pronunciation and meaning from text (Chard et al., 2006; Harris and Hodges, 1995; Kuhn and Stahl, 2003; Samuels, 2006 for L1comment, and Grabe, 2004; Grabe and Stoller, 2002 for L2/FL). Slow readers will not find enough motivation for reading much, so they will not understand. If they cannot understand they will not enjoy reading. koda (2005) describe a similar scenario, adding that inadequate reading practice among poor readers will not let them to develop their conceptual growth (p.30). It should be noted that reading practice will help L2/FL readers to access linguistic, world, and topical knowledge needed to improve their reading skills (Day and Bamford, 1998, p 19).

In L2/FL reading research, fluency has received scant attention despite reading itself (Grabe 2004). Fluency is defined as "the ability to decode and to comprehend the text at the same time (Samuel, 2006). Grabe (2004) stated that accuracy, speed and appropriate expression in reading text silently or orally are main characteristic accompanied with fluency. It should noticed that high language proficiency does not necessarily ensure good reading fluency. Empirical evidence has rather supported the opposing position that reading fluency and language proficiency will not always necessarielycoeccur with each other (Favreau and Segalowitz, 1983; Segalowitz, 1986,Segalowitz et al., 1991).

Repeated reading (RR) is a means for developing fluency. This method has been devised by Samuel (1979) to develop reading fluency in L1 setting. This method has learners re-reading a short passage, three or more time, until they are able to read at criteria word per minute (wpm) level. Different empirical studies proved that RR has positive effect on readers reading fluency and comprehension in monolingual English readers (Kuhn and Stahl, 2003), oral reading rates and accuracy (Carver and Haffman, 1981; Chomsky, 1976; Dahl, 1974; Dowhower, 1987; Herman, 1985; Rashotte and Torgesen, 1985; Samuel, 1979; Young et al., 1996) and even on vocabulary development (Koskinen and Blum, 1984), and seem to enable readers to read in large and more syntactically and phonologically appropriate phrasces (Dowhower, 1987). it should be mentioned here that has significant effect on reading fluency.vocabulary overlapping between two text should increase reading rate, this effect suggest that automaticity with word recognition, or lack of it has significant effect on reading fluency.

While RR has received considerable attention in English as L1 settings, somewhat less attention has been paid to research on RR in L2 or FL settings. Blum, Koskinen, Tennant, Parker, Straub, and Curry (1995) investigated whether home-based RR with an auditory model (audio cassettes) is an effective supplement to an L2 literacy program. They concluded that RR improved the readers' ability to read fluently and accurately books of increasing difficulty. Significantly, readers also reported through a survey that RR enhanced their motivation to read.

Bilingualism is actually the norm in much of the world, and many countries throughout the world have more than one official language. So, bilingual speakers are important subjects for theoretical and clinical research.

2. Method

2.1. Participants

Total number of Participants in this study consists of 10 Persian monolingual and 10 Kurdish- Persian bilingual students who were selected randomly among first grade Iranian EFL students. There were 8 males and 12 females, and their mean age was 21. There were also 20 Iranian University students in control group which includes 8 male and 12 female with the mean age 21.32. Both groups were placed in the same level and had the highest English proficiency.

2.2. Materials

2.2.1. Close Test

Close test was used to check pre-treatment equivalence of experimental and control group 500–word passage from *the secret agent* (Conrad, 1922). The Flesch Kincaid Grade Level was 2.5. All the grammatically and semantically possible responses were accepted.

2.2.2. Repeated Reading Treatment Texts

The repeated reading treatment text includes two short stories selected from Readers series (The secret agent &little women) Segmented into 18 texts. Each part was from 320 to 550 words, with a mean word length of 510 words. One text has been chosen randomly from 18 showed a readability level at 2.9 on Flesch Kincaid Grade Level. We noted that few students got high scores onitems based on passages. It is important to choose texts that are not too difficult in order to maximize fluency building. It should be noted that there is vocabulary overlap between these two short stories comprising 18 texts, but still there are non-overlapping vocabulary among these texts which are mainly belongs to content words, such as common nouns, verbs and adjectives. And like most graded readers, the RR treatment texts were limited in number of grammatical structure used. The majority of verbs carry the simple past and present tense and other tenses such as past and present perfect occur rarely through the text.

2.2.3. Short answers pre- and post-test

One 1420 word text, *necklace* (Guy de Maupassant, 1884) was divided into two texts, one with 702 words and another with 718 words. The first one is the basis of form A, and second one for form B. Each form includes 11 short answer items, the first 10 items concerning understanding the main idea, supporting details and details and the remaining one was written to test inferences.

A test procedure was same for both pre and post- test and the same as RR treatment as well. An English passage given to both experimental and control group while timing themselves. Then, the test text was taken away while participants answered 11 items in Persian for monolingual and Persian or Kurdish for bilinguals. The participants then read the test texts second, third, fourth and fifth time while timing themselves. After the fifth reading, participants were given another fresh sheet including the same short answer items they had answered after the first reading in Persian for monolingual and Persian or Kurdish for bilinguals.

Participants written answers were translated into English. The outcome were added and converted into percentage. Ten pre and post-test forms randomly selected from both form A and B and were given to an experienced ESL teacher for scoring. Authors' and the teacher were 89% consistent on form A and 91% on form B.

3. Procedure

This project was conducted for 8 weeks with two group of experimental and control group. The implementation of RR treatment was based on Taguchi (1997), and Taguchi and Gorsuch (2002). The RR treatment in the current study followed the procedure described below for the 18 treatment sessions:

1. Students read each segment of short story timing their own reading of a passage with a stopwatch.
2. Students read the previous passage to remember what they had read in the last session. This step was skipped only when they started a new textbook.
3. Students read the passage two times while listening to the exact audiotaped version with headphones.
4. Participants finally read the text silently a fourth and fifth time and timed each of their readings with a stopwatch and marking each time on their time log sheet.
5. Students wrote a short report about what they had read in the story passage either in Kurdish, Persian or English.

Participants checked off the number of repetitions they made and recorded the time they took to read each passage on a record sheet. Selected segments for each RR sessions were contiguous. It means that if we have first 500 –word segment in *secret Agent*, in the second session we have next 500 –word segment of the same story. Then the next story was begun. At the end of study, short answer post-test was administered in reverse, in which experimental group took form B and control group took form A of the test.

4. Analysis and Findings

The first research question in this study was that how much will reading fluency of participants in experimental group (monolingual and bilinguals) increase during the RR treatment period, and is there any significant differences between monolinguals and bilinguals rate or not. To answer this question, reading fluency rates (words per minute) were calculated for the first and fifth readings for each experimental group member in each RR session using students' time logs. To estimate how much fluency increased on average for the study, the experimental group's average wpm for the first reading for the first RR session was compared to their first reading for the 18th and final RR session using a paired t-test. The data was shown in the table 1 and 2 for monolinguals and bilinguals respectively.

Table 1.Monolinguals Reading rates (WPM) on first and fifth readings, first and last RR sessions

	M	SD	Mean difference (WPM)
First reading			
Session 1	172.200	50.091	48.523
Session 18	220.723	64.732	
Fifth reading			
Session 1	283.121	100.01	108.891
Session 18	392.012	199.001	

Table 2.Bilinguals Reading rates (WPM) on first and fifth readings, first and last RR sessions

	M	SD	Mean difference (WPM)
First reading			
Session 1	170.723	51.010	54.289
Session 18	225.012	66.412	
Fifth reading			
Session 1	280.121	99.012	109.891
Session 18	390.012	200.079	

The result shows that both monolingual and bilingual experimental group participants reading fluency increased during 8 week RR treatment, confirming the finding in Taguchi et al. (2004) and Gorsuch&Taguchi (2008).

Monolingual participants reading fluency on average increase approximately 49 words per minute on the first reading between the first and last RR session. And on average, these participants reading fluency on fifth reading increased approximately 109 words per minute from first to the last RR session.

On the other hand, bilingual participants reading fluency on average increase approximately 55 words per minute on the first reading between the first and last RR session and their reading fluency on fifth reading increased approximately 110 words per minute from first to the last RR session. These increase in both monolingual and bilinguals' participants are statistically significant at $p < .021$ ($df = 10$, $t = 4.983$). It should be added that there is no significant difference between the monolinguals and bilinguals reading fluency since $p = .001$. It means that during the RR sessions monolinguals and bilinguals reading fluency was increased in the same way and monolingualism and bilingualism did not an affect the results.

Participants reading fluency within RR sessions, were also increased, this finding is also in line with findings Taguchi et al. (2004) and Gorsuch&Taguchi (2008). See table 3 below.

Table 3.Monolingual and bilingual average reading rates for all first and fifth readings

		M	SD	t	p
monolingual	First reading	196	19.1	16.33	0.00
	Fifth reading	310	31.3	17.23	0.00
bilingual	First reading	198.5	19.32	16.16	0.00
	Fifth reading	318.25	32.81	18.01	0.00

The comparison also made between WPM rates of the monolingual and bilingual experimental and control groups on the short answer pre- and post-tests. Below in Table 4 are the pre- and post-test wpm rates for the short answer test.

Table 4.WPM on the short answer test texts

Short answer test						
Monolingual experimental group pre-test (form B)			Bilingual experimental group pre-test(form A)		Control group pre-test(form B)	
	M	SD	M	SD	M	SD
First reading	148.32	36.23	149.02	37.01	143.18	35.15
Fifth reading	223.81	86.21	227.91	86.02	189.71	90.7
Monolingual experimental group post-test (form A)			Bilingual experimental group post-test(form B)		Control group post-test(form A)	
	M	SD	M	SD	M	SD
First reading	141.14	36.10	150.01	36.73	139.91	31.12
Fifth reading	259.18	80.23	260.16	82.02	218.1	81.19

On the short answer first reading pretest, both monolinguals and bilinguals experimental group read at the same rate; i.e. (M= 148.32 wpm) for monolingual and (M= 149.o2 wpm) for bilingual participants which has no significant difference with the control group (M = 143.18 wpm), but by the fifth reading, the control group (M = 189.71 wpm) read slower than the monolingual and bilingual experimental group (M =223.81 & M =227.91 wpm). On the first reading post-test, the monolingual and bilingual experimental group read the test text slightly faster than the control group (M = 139.91 wpm) although the difference was not statistically significant), but by the fifth reading both monolingual and bilingual experimental participants read faster than control group (M = 218.11 wpm) and the differences were statistically significant.

In summary, Based on this obtaining result it can be concluded that monolingual and bilingual reading fluency during RR sessions has been increased and there is no significant difference between two experimental group in terms of monolingualism or bilingualism, and the two experimental group gained higher fluency than control group which undergone no treatments.

The picture for comprehension was different. The bilingual experimental group comprehended more than monolingual and control group, even though monolingual and bilingual participants read at roughly the same wpm rate. See table 5 below.

Table 5. Percent of propositions used to complete short answer test

Short answer test						
Monolingual experimental group pre-test (form A)			Bilingual experimental group pre-test (form B)		Control group pre-test (form A)	
	M (%)	SD (%)	M (%)	SD (%)	M (%)	SD (%)
First reading	13.18	7.1	13.93	6.99	15.02	7.2
Fifth reading	35.9	10.91	38.72	11.02	34.03	8.6
Monolingual experimental group post-test (form B)			Bilingual experimental group post-test(form A)		Control group post-test (form B)	
	M (%)	SD (%)	M (%)	SD (%)	M (%)	SD (%)
First reading	36.71	11.32	40.23	11.02	28.12	10.70
Fifth reading	55.3	11.61	67.42	11.66	41.20	11.39

On pre-tests, the monolingual and bilingual experimental group and control group perform roughly at the same way. On the short answer pre-test, the control group used a greater percentage of the total possible propositions to answer items (M = 15.02%) on the first reading than the monolingual

experimental group (M = 13.18%) and bilingual experimental group (M = 13.93%). Although this difference was not statistically significant, on the fifth reading, bilingual performance M =38.72% was higher than both monolingual and control group (monolingual experimental group M =35.9%; control group M = 34.3%). The monolingual performance was higher than control group but these differences are not statistically significant.

At the end of the study, in general the experimental groups did better than the control group. On the first reading of the short answer post-test, the bilingual group used 40.23% of the propositions to answer test items while the monolingual experimental group used a mean of 36.71%, and control group 28.12 %, here again result shows that bilingual performance is higher than monolingual and control group, although again this differences are not statistically significant.

On the fifth reading short answer post-test, the bilingual group used 67.42% of the propositions to answer test items while the monolingual experimental group used a mean of 55.3%, and control group 41.20%, here again result shows that bilingual performance is higher than monolingual and control group and it was not surprising that these differences are statistically significant, since $p < .05$ ($F = 91.03$, $df = 1$).

5. Conclusion

This report describes an 8-week quasi-experimental RR study carried out with monolingual and bilingual university level Iranian learners of English using improved reading comprehension testing procedures. It was found that RR in general was effective in increasing reading fluency and comprehension among experimental group in comparison with control group which does not receive any reading treatment. This finding is not in line with other previous studied which have failed to report reading comprehension gains from repeated reading (e.g. Taguchi and Gorsuch, 2002; Taguchi et al.; 2004). Since repetition is a critical element in RR method, experimental group take more advantage of this element, during post-test and comprehend more than control group. The significant finding of this study is that bilinguals gain better comprehension ability than monolinguals but concerning fluency no specific differences were found between monolinguals and bilinguals performances. So it is logical to posit this fact that in FL setting RR is an effective method to help readers especially bilinguals to become independent.

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