The Effect of Training in Word Recognition on Intermediate EFL Learners' L2 Reading Comprehension Ability

Neda Rezaei

English Department, Meybod Branch, Islamic Azad University, Meybod, Iran

Zabih Ollah Javanbakht

EFL Teacher, Department of Education, Isfahan, Iran

Abstract

The purpose of the present study was to investigate the effects of training in strategies of word recognition and meaning in reading comprehension. A sample of 40 intermediate EFL learners who studied English in a language institute in Ahvaz, Iran were randomly selected for the study. Then, the learners were randomly assigned to two control and experimental groups. After taking the pretest, lexical items were taught to the experimental group during the treatment sessions. Afterward, the vocabulary knowledge of learners was measured by the posttest. The results of t-test showed that learners' reading comprehension ability enhanced on the posttest. Moreover, findings revealed that students in the word recognition class had better performance on posttests than learners in the control group.

Keywords: L2 reading comprehension, word meaning, word recognition

INTRODUCTION

Being able to gain information through written texts, having fun and pleasure as a result of reading magazines, novels, anecdotes, etc. and being skillful enough to get the daily business done, are some of the functions that reading fulfills (Chastain, 1988). Through the passage of time, various styles of reading have been taken into consideration, including receptive reading, reflective reading, skim reading, scanning, intensive and extensive reading and so on. What determines the speed and the strategy used for reading is certainly the purpose for which the reader is processing the text. Various experiments have been done in the realm of comprehension (Hedge, 2008; Nunan, 2004; Richards, Willy & Renandya, 2002).

According to Hedge (2008), there are some important points for reading instruction to facilitate word recognition. Asking the students to think aloud in contrast to silent reading has uncovered how they are tackling and responding to the text. Their thoughts

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are recorded which are called protocols. Frequency of words, pronunciation and contextualization are other important factors. Recall protocols are one of the important ones. They provide useful insights into reading strategies. Recall protocols can be scrutinized regarding to different aspects. The working procedures of various memory types, retrieval of information according to schematic theory , dual coding and context availability, different reading styles, different kinds of texts, intelligence and personal cues and pre/ post reading tasks, are some noteworthy features.

Vocabulary is "the knowledge of meanings of words. Knowledge of words also comes in at least two forms, receptive - that which we can understand or recognize - and productive - the vocabulary we use when we write or speak" (Kamil & Hiebert, 2005, p. 3). Nation (2001) divided the issues related to learn a vocabulary into three sets of questions concerning the word form, meaning and use. Nation (2001) distinguished between receptive and productive vocabulary knowledge. Whereas, receptive vocabularies refer to the words comprehensible for the learners in listening and reading, not used by the learners in speaking or writing; productive vocabularies are the vocabularies actively used by the learner in speaking and writing. It means that productive vocabularies are not only comprehensible for the learners but they are also among the active lexical repertoire used by the learners in real communicative situations.

REVIEW OF THE LITERATURE

In this section the review of relevant studies in the areas of research is provided. The review of literature consists of theoretical background of reading and reading comprehension concepts and some information related to word and vocabulary.

The increased attention to reading skills in recent decades revealed that readers rely on different competencies while reading. The most common ones include grammatical competence, sociolinguistic competence, discourse competence and strategic competence. These competencies assist the readers in completing a multitude of different strategies and tasks in order to facilitate comprehension. (Gascoigne, 2005)

The ultimate goal of reading is to understand the meaning of the text. Most of the studies indicate that there are many processes contributing to reach the meaning of the text. Van den Broek, et al. (2005) argued that these processes can be divided into two categories: those involved decoding the written text into meaningful units and those which combine these units into meaningful and coherent mental representation that is called comprehension. Research studies on reading comprehension process then proposed different models of reading comprehension process based on the types of skills and abilities involved during the process.

Reading comprehension is a complex psycholinguistic process and cognitive ability which needs to incorporate listener/readers' knowledge into text information plus elaboration of a mental representation (Meneghetti, et al., 2007). The plethora of

studies have been investigated reading comprehension process and products and tried to provide a clear picture of the how readers extract meaning and to explain the number and types of abilities and skills involved in reading comprehension process. Carroll (1993) identified the following cognitive abilities involving in reading comprehension (Special Issue Introduction, p.629):

- **Reading Decoding:** Ability to recognize and decode words or pseudo words in reading using a number of sub-abilities (e.g., grapheme encoding, perceiving multiletter units, phonemic contrasts, etc).

- **Reading Comprehension:** Ability to attain meaning (comprehend and understand) connected discourse during reading.

- **Verbal (printed) Language Comprehension:** General development, or the understanding of words, sentences, and paragraphs in native language, as measured by reading vocabulary and reading comprehension tests. It does not involve writing, listening to, or understanding spoken information.

- **Cloze Ability:** Ability to read and supply missing words (that have been systematically deleted) from prose passages. Correct answers can only be supplied if the person understands (comprehends) the meaning of the passage.

- **Reading Speed (fluency):** Ability to silently read and comprehend connected text (e.g., a series of short sentences; a passage) rapidly and automatically (with little conscious attention to the mechanics of reading).

The present models of reading comprehension stressed the significant role that different cognitive processes play during text comprehension. For example, both short-term and long-term memories have major roles in reading comprehension process. The new information is stored in short-term memory during the processing of the text, and at the same time the reader refers to his/her background knowledge in order to construct a coherent representation of the text (van den Broek, 1994). Verhoeven and Perfetti (2008) presented an integrated model of reading comprehension.

The reader starts to read a text with the identification of single lexical items. The process of word identification includes the readers' representation of orthography, phonology, morphology and meaning. When the word is identified, the next step is understanding the text that is called in this model word-to text integration. It is the result of word by word processing. The final stage is text comprehension in which learners comprehend the text by combining the meaning of each sentence plus prior knowledge.

Undoubtedly, knowledge of second language vocabulary plays significant role in language learning (Zimmerman, 1997). Considering the fact that the number of

vocabularies existing in any language, it seems that an approach composed of both explicit and implicit method may present the best method to handle the best results. Moreover, based on Ellis (1994), expecting to teach all the necessary vocabularies in any L2 seems to be illogical and impossible; since learners acquire some part of the vocabularies peripherally and incidentally.

Grabe (1993) argued that the best way to represent the vocabularies in any L2 is likely achievable through a combination of both direct and indirect methodology. They maintained that the students should pay attention to the context clues to pick up the lexis. They emphasized that "without sustained explicit training, however, students are not likely to make efficient use of redundancies, collocations, and cohesive devices used in writing" (p. 32).

THIS STUDY

The purpose of the present study was to investigate the effects of training in strategies of word recognition and meaning in reading comprehension. Therefore, the goal of research was to improve the quality of reading comprehension by finding out the mechanisms influencing word recognition. From another perspective, this study is applied research since it was going to make a connection between the theory and practice and provide the practical application of training on word recognition in improving EFL learners' reading comprehension.

Regarding the purpose of the study, the following research question is proposed:

- Does training in word recognition have any effect on language learners' reading comprehension?

The following null hypothesis is formulated in order to answer the research question of study

- Training in word recognition does not have any effect on language learners' reading comprehension.

METHOD

Participants

In this study, a sample of 40 intermediate EFL learners who study in a language institute located in the city of Ahvaz were randomly selected for the study. To lower the effect of pre-knowledge and on participants' performance in reading comprehension, the subjects were chosen from a similar educational level and academic major. The participants were randomly divided to two groups of control and experimental.

Instruments

A number of instruments were used in order to collect the data in this study.

Word Recognition Test

The word recognition test is consisted of 20 words and 10 pseudo-words. Pseudo-words are fake words that are string of letters that resembles a real word (in terms of its orthographic and phonological structure) but they do not actually exist in the language.

Reading Comprehension Text

In order to collect the data of the dependent variable, reading comprehension, the students' grades on intermediate reading comprehension test were collected. The reading comprehension test was constructed from intermediate reading comprehension course books i.e., *Intermediate Select Readings books* (Lee & Gunderson, 2011). It consisted of 25 items. Before and after training, the students complete the same test as their reading comprehension pretest and posttest.

RESULTS

The data collected in this study were interval data. The participants of both groups took pretest at the beginning of the study. The descriptive statistics of the scores of the participants in control and experimental groups are presented in Table 1.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest (Experimental Group)	20	10.00	15.00	14.1500	2.88873
Pretest (Control Group)	20	9.00	14.00	12.2500	1.97017

As the mean scores of both groups show, there was no difference between the groups regarding their reading comprehension ability. The participants of control and experimental groups took a similar posttest after administration of the research. The results of their performance were illustrated by descriptive statistics of Table 2.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Posttest (Experimental Group)	20	15	25	20.70	2.716
Posttest (Control Group)	20	11	20	14.75	2.863

In order to find whether there is a significant difference between the control and experimental group in their performance on posttest, an independent sample t-test was performed. The results, as Table 3 shows, indicated that that there is a statistical significant difference between experimental and control group in their performance on posttest. Therefore, word recognition training had a significant effect on learners' reading comprehension. In other words, the null hypothesis of the study was rejected.

Table 3. Independent Samples Test

	Levene's Test for Equality of Variances				t-test for Equality of Means				
	F	Sig.	t	Df	Sig.	Mean Difference	Std. Error Difference	95%Confidence	
								Lower	Upper
Equal var. assumed	.13	.71	6.74	38	.00	5.950	.88251	4.16	7.73

DISCUSSION AND CONCLUSION

Given this contextualization, the current results were both in agreement with and divergent from previous findings. First, the result lent support to the differential contribution of decoding or phonological processing to reading comprehension and reading rate, that is, decoding was associated with reading rate but not with reading comprehension (Fujita, 2010; Hamada & Koda, 2010; Kato 2009; Koda, 1998). The results were also in accordance with a previous finding that lexical meaning access predicts reading rate (Haynes & Carr, 1990; Shiotsu, 2010).

However, only the current study identified the contribution of meaning access to reading comprehension, in contrast to the outcomes of previous studies (Haynes & Carr, 1990; Shiotsu, 2010). This study measured the reading comprehension of Iranian intermediate EFL learners using word recognition training a vocabulary test at the beginning (pretest) and the end (posttest) of the research. After taking pretest, the researcher taught lexical items in experimental during treatment sessions.

Then, the vocabulary knowledge of learners was measured by the posttest. A t-test was performed between the experimental participants' scores of pretest and posttest to measure whether there was any significant difference between their vocabulary knowledge before and after the treatment sessions. The results of t-test showed that there is a significant difference between control and experimental group. The learners' ability of reading comprehension was improved on posttest. The participants of word recognition class had better performance on posttests than participants of control group. It shows that word recognition was more effective in reading comprehension. To conclude, word recognition instruction was introduced as an effective teaching tool to help EFL learners to improve their reading comprehension.

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