



The effect of timing of pre-reading activities on high intermediate EFL learners' reading comprehension

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Abstract

This study was carried on for the purpose of comparing EFL learners' reading comprehension skill before and after the execution of timing different types of pre-reading activities. To do so, 54 high intermediate EFL learners who were within the age range of 15 – 24 were asked to participate in the study. A quasi-experimental design was adopted and it was found that after applying the pre-reading activities the participants of the experimental group who were given some time to process the information given in the pre-reading activities before reading a text performed better in the post-test when balanced the differences with the presenting of the participants in the control group who were asked to start the reading task immediately after fulfilling the pre-reading activities. The researchers utilized Paired and independent samples t-tests to analyze the gathered data and find the answers to the posed research question. Based on the findings, although both groups showed improvement in the post-test more probably due to the outcome of pre-reading activities, the superior performance of the experimental group leads to the conclusion that timing these activities can assess the learners' information processing before actually applying them in the reading process.

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1. Introduction

Teaching is one of the intricate and complex processes taking place in schools and educational settings since numerous factors are interacting and cooperating in this procedure. Its complexity becomes even more evident when crucial and constructive decisions are made about the future of learners on the basis of teaching procedure (Anderson & Speck, 1998). For many years, researchers, practitioners, teachers and material developers in the area of second language (L2) teaching profession have been looking for methods that could be generalized to varieties of contexts and classrooms meeting the needs of EFL/ESL learners; however, due to the diversity of language learners in various contexts, researchers have gradually realized from the long search that "there never was and probably never will be a method"

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(Nunan, 1991, p. 228) for all learners in all contexts; accordingly, they have shifted their efforts toward finding an eclectic, integrated approach with the purpose of helping teachers make appropriate choices of classroom tasks and activities which will enhance foreign language learning and teaching process (Brown, 2001).

Nowadays, reading comprehension is considered to be one of the core aims of teaching English as a foreign language that should be emphasized by language teachers (Hudson, Lane & Pullen, 2005). Reading is called an interactive process. It is essential for instructors to devise activities in order to assist students develop their reading ability, and activate their background knowledge. One of the ways that instructors can assist learners in the reading process is to supply them with pre-reading activities that aid readers organize a goal for reading, activate existing knowledge about the topic, and set realistic expectations about what is in the text by viewing it before answering questions about it (Aebersold & Field, 2003).

1.1. Literature review

Although reading was examined as a passive skill in the past, it is currently seen as an interactive process. Different definition has been proposed for reading, for instance, Lundahl (1998) defined reading as “a complicated skill that demands considerable time and practice to develop” (p. 175). Accordingly, the traditional view of mastering reading which indicated that reading starts by students' ability to understand letter-sound relationships and subsequently learning words in isolation and finally reading stories seems to be abolished in this era (Harp & Brewer, 1996). Nowadays reading is considered as a process which cannot be separated from comprehension. Readers need to check whether the comprehended text makes sense or not and whether the information learned from the text can be used to help them realize their goals or not (McNamara, Ozuru, Best & O'Reilly, 2007). Hence, this question remains unanswered that how an efficient reading can be defined. Regarding mentioned characteristics attributed to reading, Birch (2002) asserts that reading involves “a great deal of precise knowledge which must be acquired or learned and many processing strategies which must be practiced until they are automatic” (p. 2).

Barnett (1988) asserts that among the four major necessary skills needed for mastering a language, reading has attracted a lot of attention since it can be found in different learning and teaching contexts and can affect learners' academic growth in all fields of study. However, reading is considered as a complicated and hidden task; thus, one of the major responsibilities of the teachers and educators is to enhance the learners' reading comprehension through devising and utilizing different reading strategies to assist them in the process of achieving their academic purposes (Barnett, 1988).

According to Aebersold and Field (1997) in reading comprehension content and formal are the two types of Schemata. The former deals with the content of the text and readers' cultural background knowledge, while, the later refers to knowledge of forms and symbolic structures of various text types.

According to Carrell (1987) formal schemata reveals readers' expectations of textual information pieces in relation to each other and the order they occur. Zuck and Suck (1984) claim that topic or content familiarity boosts and facilitates the comprehension of a text. When the reader is familiar with what s/he reads whether in first of second language, s/he will be able to recall more and achieve a better comprehension than when the reader lacks topic or content familiarity. Similarly, Haberlandt (1988) pointed out that meaning construction does not take place in a vacuum but it is the result of connection between the background knowledge of relevant facts and information found within the text. It can be inferred that the more readers can associate the information to the fact they are familiar with, the faster they would comprehend (Alderson & Urquhart, 1988).

Although content schemata and topic familiarity play a vital role in reading comprehension, lack of form and structure familiarity can also hinder the comprehension. In other words, readers who generally use formal schemata in the process of reading comprehension gain a better reading ability in comparison with the readers who lack this feature (Meyer, 1975; Carrell, 1988).

Louise Rosenblatt (1985) argues that comprehension will take place as the result of a series of transactions between the reader and the text. Building on this perspective, he defines reading as “an event involving a particular individual and a particular text, happening at a particular time, under particular circumstances, in a particular social and cultural setting, and as part of the ongoing life of the individual and the group” (p. 100). Accordingly, the strategies and methods are often classified into three stages. The first stage is pre-reading, the second and third ones are while reading, and post-reading activities (Kulbrandstad 2003, p.185).

Pre-reading activities, which are the main focus of this study refer to activities which are carried out before reading. Ausubel (1963) refers to pre-reading activities as one type of advance-organizers which are mainly used to activate students’ pre-existing knowledge for the purpose of helping them in the processing and retaining of the text. Some of the different types of pre-reading activities are brainstorming, summarization, and pre-teaching vocabulary which are applied in this study.

1.2. Statement of the Problem

As a basic skill that affects learners' academic growth, reading is always the center of attention for teachers and all educators in all fields of study. But, even the teachers cannot observe what makes a successful reader. Accordingly, the efforts to improve reading comprehension of learners in order to help them achieve academic success are among the crucial responsibilities of teachers and educators (Barnett, 1988).

Regarding the importance of English language, the need for understanding what is reading has become even more essential for foreign language learners or the second language learners. Ediger (2001) believes that most EFL and ESL learners have experienced a breakdown in reading comprehension because they have inadequate prior knowledge, misunderstand word meanings, have limited vocabulary, and misinterpret writers’ ideas and, etc. Thus, they experience much more difficulty in the process of reading than first language learners. In the same vein, Haynes and Carr (1990) assert that L2 learners read much more slowly in L2 than in their native language (L1) since they have to check unfamiliar words word by word implying that they lack automaticity of word recognition; accordingly, their attention is divided into decoding the word meaning and comprehending the content, and only little by little the habit of reading is formed.

Comprehension is also a complicated task which takes place in dual levels of word and text levels. In the word-level, the learners need to process the quality of word representations and in the second level which is called text-level the learners need to process the construction of representations of text meaning (Perfetti, 2007); moreover, another level is proposed by Kintsch, (1998) which involves inferring main ideas and thematic elements of a text.

Lack of reading comprehension ability causes various difficulties for learners in performing various tasks. Some of these difficulties mentioned by different researchers and scholars are as follows: (a) inability by learners to choose abstract words in semantic judgment and performing recall tasks (Nation & Snowling, 1999), (b) difficulty in producing semantic category members which is vital in verbal fluency tasks (Nation & Snowling, 1998a), (c) poor performance by learners in tasks which involve assessing their lexical knowledge (Ricketts, Nation, & Bishop, 2007) (d) inability to integrate information of the text with general knowledge (Cain, Oakhill, & Lemmon, 2004) (e) inability to relate

the text information by using prior knowledge (Cain, Oakhill, Barnes, & Bryant, 2001), (f) inability to make use of context to guess unknown words meaning (Cain, Oakhill, & Lemmon, 2004).

Haque (2010) refers to three main reasons that can hinder a reader in the way of reaching success when reading skill is involved. The first reason may be due to the reading text itself. When the reading text is above the readers' level and has a lot of complex structures and unfamiliar vocabulary, the successful reading process is hindered. The second reason might be related to the reader himself or herself. If s/he is not motivated enough and feels no need for reading, then s/he cannot be expected to be successful in reading. The third reason, which is discussed in this study, might be attributed to the readers' schema, or in other words, the reader's background knowledge.

In the past, most EFL teachers tried to improve text comprehension. The problem was that familiarizing the students with the unfamiliar vocabulary could not raise students' interest in reading the text and gain conceptually and culturally new elements of the text in most cases since it was against the schema-theoretic view of reading could not activate background knowledge needed for comprehension during the reading process.

Also, teaching Reading is a continuing process which begins from elementary levels and continues to higher educational levels (Noysangsri, 1988). Regarding the process of teaching reading, the instructor must employ effective and appropriate steps of teaching reading. One of the initial and main steps is to provide pre-reading activities. S/he must employ pre-reading activities to prepare readers before they read the whole material and assist them to comprehend better (Graves, Watts and Graves, 1994). However, the problem is that most teachers are not aware of how to attract learners in reading activities. Accordingly, these teachers cannot use reading to assist learners to reach their real goal of helping learners to use the learned materials in an authentic way. Therefore, there is a need for innovative techniques and activities which can improve reading ability of the learners. The aim of this examination is to find the influence of timing of pre-reading activities (brainstorming-discussion, vocabulary elaboration and summarization) on high intermediate EFL learners' reading comprehension.

1.3. Significance and Justification for the Study

Ability to read well enables the reader to gain more knowledge of any kind, achieve novel ideas to boost his/her cognitive development and have wider outlook and vision (Sookchotirat, 2005). Pre-reading activities which are used before teaching of the actual reading materials have facilitative role which activate their vocabulary familiarizing and text structures (Hyde, 2002; Bilokcuoglu, 2011). Haque (2010) believes that pre-reading activities are some kind of warm-up activities which help readers to be more willing to participate in the activity. In addition, Ur (1996) and Chastain (1988) refer to motivating characteristic of pre-reading activities. "These activities prepare learners for the concepts that follow, make the reading task easier, connect the new content more meaningfully to prior knowledge, and make reading more enjoyable" (Taglieber et al., 1988, p. 456). It is hoped that by evaluating the effectiveness of timing of different pre-reading activities (discussion-brainstorming, vocabulary elaboration, and summarization) on EFL learners' reading comprehension, the study can help EFL teachers in planning when to use pre-reading activities in their classes; moreover, it is hoped that material developers take the results into consideration in generating reading texts.

2. Method

Regarding the design of current study, it can be claimed that current study is a primary research because the data is derived from primary source (e.g. students who are studying EFL in a Language Institute). Among types of research i.e. qualitative and quantitative; current research falls within the quantitative category (i.e. the data analyzed statistically). From the two types of quantitative studies which are

divided into associational/ correlational and experimental, this study possesses a quasi- experimental design. Quasi- experiments are “similar to true experiments in every respect except that they do not use random assignment to create the comparisons from which treatment-caused is inferred” (Cook & Campbell, 1979, as cited in Dörnyei, 2007, p. 117). Due to the fact that, the researcher conducting present study was not able to randomly select or assign subjects to treatment/ control groups and the classes were intact, a quasi- experimental design was adopted. As was mentioned above, conducting present study, the effect of an independent variable on a dependent was examined, hence, in the present study, timing of pre-reading activities was the independent variable, the participants’ gender and level of English proficiency were the control variables and reading comprehension was the dependent variable. The research questions are concerned with exploring the impact of applying a method (i.e. timing the pre-reading activities) on reading comprehension. Thus, the study desired to answer the following questions and test the null hypotheses:

RQ1: Does timing of pre-reading activities have any significant differential effects on reading comprehension of Iranian EFL learners?

RQ2: Is there any statistically significant difference between the performance of participants of experimental and control groups in terms of reading comprehension ability?

H01: Timing of pre-reading activities has no significant differential effects on reading comprehension of Iranian EFL learners

H02: There is not statistically significant difference between the performance of participants of experimental and control groups in terms of reading comprehension ability.

This study used pre/post-test design in order to evaluate the learners’ reading comprehension, as well as to compare the control and experimental groups’ reading comprehension.

2.1. Participants

A population pool of 54 Iranian high intermediate EFL learners who were within the age range of 15 - 24 participated in this study. They were studying Summits 1A, a famous international English course book, in a Language Institute, West Azarbayjan, Urmia, Iran. Learners were admitted to this level by passing at least intermediate levels. In order to take part in this research, they were singled out from some intact classes but indiscriminately assigned into one experimental and one control group. For most of the students, the mother tongue was Azeri except few of them who spoke other language as their mother tongue; however, because of living in an Azeri speaking city, all could understand Azeri. The first language (L1) for 80% of participants was Azari; only 20% of them spoke other languages as their L1.

2.2. Procedures

This study was conducted in regular class time at a Language Institute. The process of conducting the research was almost the same in both groups. Before administering the treatment, authorization was obtained from the institute’s authorities and the supervisor. The students were assured that the results would be handled in a confidential manner. The students, then, were provided with a brief explanation of the process of the study i.e. they were informed about what they were required to do in the study. It is worth noticing that, because the pre-test and post-test used in this research were designed by the researcher herself, prior to being utilized, a pilot study was administered to check the reliability, time limitation, and the precision and lucidity of the research questions. So, 15 students of the same English proficiency level with the main subjects of the study took these tests. The data obtained, was put into SPSS and a Cronbach’s alpha were applied to check the reliability. The reliability index for the pre- and post-test ($r = .71$) indicated that the researcher-made tests were reliable. To ensure the content and face validity of these tests, relevance of the questions to the treatment, and their suitability to the research

objectives and purposes, the researcher consulted three experienced experts in the field of applied linguistics. The comments of the validity team and their suggestions were taken into account, and before applying the tests, the needed modifications were made by the researcher.

First test given to the participants in groups was the homogeneity test (MET). Based on the results, the outliers were omitted and other students were assigned into experimental and control group. To compare the participants reading comprehension level before the treatment, a reading pre-test were given and also to compare their performance after the treatment the post-test was given. The treatment in both groups comprised of six sessions. Both groups had the following pre-reading activities:

In the pre-reading vocabulary activity, some vocabularies were selected and presented to the learners using their synonyms or definitions. The words were singled out on the basis of their significance and probability that they were unfamiliar to the participants. The words were defined and explained based on their meanings in the context. In the pre-reading summarization activity, the summary of the related passage was written on the board before reading the full- text. While for the pre-reading discussion-brainstorming activity, some pre-reading questions were written on the board and the participants were asked to brainstorm and discuss the questions, in the experimental group the participants were given some time to process the information given in the pre-reading activities before reading a text and were asked to read the passage on the following session, the participants of the control group received a passage and were asked to start the reading task immediately after fulfilling the pre-reading activities.

At the end of 6 sessions which lasted for 3 weeks, both control and experimental group were asked to take the reading comprehension post-test to measure any possible effect of the treatment on the experimental group and to compare the performance of groups in terms of reading comprehension performance.

3. Results

For the purpose of probing the effects of timing of pre-reading activities on subjects' reading comprehension, different Statistical tests including paired and independent samples t-tests were applied. The researcher used an independent samples t-test to analyze the participants' performance after the pre-test to see if the two groups performed significantly differently on the reading comprehension pre-test or not. In order to investigate whether the treatment given to the experimental group caused any significant change within this group and to see if the students in this group performed significantly better on the post-test in comparison with the control group, the reading comprehension pre-and post-test scores of the experimental group were compared using a paired samples t-test. Afterwards, the reading comprehension pre-and post-test scores of the control group were compared using a paired samples t-test too. Finally, to examine whether the performance of the students in the experimental group was significantly different from that of the control group or not, an independent samples t-test was run between the scores of the reading comprehension post-test of both groups.

3.1. Analyzing the Homogeneity Scores

In order to achieve efficient results, before studying the main part of the research a Michigan English proficiency Test (MET) was given to the selected intact classes with the aim of homogenizing them. After giving the test, the papers were corrected and scores were analyzed by SPSS software. The results of homogenizing the initial participants are shown in Table 1.

Table 1. The Descriptive Statistics of the Homogeneity Test

	N	Minimum	Maximum	Mean	Std. Deviation
Michigan Test	54	10	35	26.70	4.982
Valid N (list wise)	54				

According to Table 1, the scores ranged from 14 to 35, mean of the score was 26.70 and standard deviation equaled 4.98. Based on the above descriptive statistics, the students whose score was within the range of Mean score +1SD and Mean score-1SD were taken as the main participants (N = 45) of the study and others were omitted as outliers (N = 9). When the homogenizing process was completed and the outliers were spotted, the students were randomly assigned as experimental and control group. In order to measure participants' initial reading comprehension level, a reading comprehension pretest was given to them before starting the treatment part to check any possible differences between the groups and also use the data to compare with the ones obtained from the posttest. However, prior to analyzing the data, the normality of the data should have been checked. To do so, two Kolmogorov-Smirnov tests were run on the data; results are shown in Tables 2 and 3.

3.2. Investigating the Normality of Data Obtained from Pretest

In order to determine whether to use parametric or non-parametric tests to use, two Kolmogorov-Smirnov tests were run on the data, the Tables 2 and 3 show the achieved results.

Table 2. Exploring Distribution Normality of the Scores in Reading Comprehension Pretest in Experimental Group

		Pre experimental
N		24
Normal Parameters ^{a,b}	Mean	47.58
	Std. Deviation	8.439
Most Extreme Differences	Absolute	.145
	Positive	.140
	Negative	-.145
Kolmogorov-Smirnov Z		.709
Asymp. Sig. (2-tailed)		.696

a. Test distribution is Normal.

b. Calculated from data.

Table 2 shows the results of Kolmogorov-Smirnov test run for the purpose checking the normal distribution of pretest scores of experimental group prior to the main phase of the study. According to the significance level (.69), it is indicated that the scores were normally distributed; therefore, the researchers decided to run parametric statistics. The same test was carried out on the scores of control group; the results are summarized in the table below.

Table 3. Exploring Distribution Normality of the Scores in Reading Comprehension Pretest in Experimental Group

		Pre control
N		21
Normal Parameters a, b	Mean	49.43
	Std. Deviation	6.337
Most Extreme Differences	Absolute	.122
	Positive	.091
	Negative	-.122
Kolmogorov-Smirnov Z		.559
Asymp. Sig. (2-tailed)		.853

a. Test distribution is Normal.

b. Calculated from data.

A brief look at the Table 3 shows the findings of Kolmogorov-Smirnov test and reveals that the hypothesis of the test stating the deviation of scores from normal distribution is rejected since the significance level is $p = .85$, hence, it is concluded that the scores had a normal distribution.

3.3. Analysis of the Data Obtained from Pretest Given to Participants Prior to Treatment

Having checked the normal distribution of the scores in the pretest, an independent t-test was used to check any possible initial difference between control and experimental group prior to the treatment phase of the study. Table 4 shows the descriptive statistics of reading comprehension pretest.

Table 4. Descriptive Statistics of Participants' Pretest Scores in Experimental and Control Group

	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Pretest	experimental	24	47.58	8.439	1.723
	Control	21	49.43	6.337	1.383

According to the data statistics shown in Table 4, it is disclosed that the mean scores and standard deviations of experimental and control group are $M = 47.58$, $SD = 8.43$ and $M = 49.43$, $SD = 6.33$ respectively. Comparing the mean score, a difference is seen between them which may be indicator of different reading comprehension ability. To make sure whether the observed difference is statistically significant or not, an independent sample t-test was used. The results are provided in Table 5.

Table 5. An Independent Samples T-Test for the Comparison of the Mean Scores Obtained from Pre- Tests

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pretest	Equal variances assumed	1.668	.203	-.820	43	.417	-1.845	2.251	-6.385	2.695
	Equal variances not assumed			-.835	42.093	.408	-1.845	2.209	-6.303	2.612

Data obtained from t-test in Table 5, $t(43) = 0.82$, $p = 0.41$ reveals that the difference between the mean scores of participants' pretest is not statistically significant indicating that control and experimental groups showed a similar reading comprehension performance. In this case if any difference in the posttest performance of the participants is seen can be due to the effect of treatments in groups.

Having analyzed the pretest scores, the treatment phase was carried out followed by a posttest. The following section elaborates the results obtained from posttest and compares it to the pretest scores.

3.4. Investigating the Normality of Data Obtained from Posttest

Having given the posttest and questionnaire to the participant of two groups, the scores were analyzed using SPSS software as it was done on the pretest score to indicate whether the score distribution is normal or not. The results are tabulated in tables 6,7,8, and 9.

Table 6. Exploring Distribution Normality of the Scores in Reading Comprehension Posttest of Experimental Group

One-Sample Kolmogorov-Smirnov Test		Post experimental
	N	24
Normal Parameters ^{a,b}	Mean	58.21
	Std. Deviation	4.755
Most Extreme Differences	Absolute	.108
	Positive	.103
	Negative	-.108
	Kolmogorov-Smirnov Z	.527
	Asymp. Sig. (2-tailed)	.814

a. Test distribution is Normal.

b. Calculated from data.

Table 6 shows the results of Kolmogorov-Smirnov test run for the purpose of checking the normal distribution of posttest scores obtained from the participants of experimental group at the end of the study. As this table indicates, and the significance level reveals (.81), the scores were normally distributed; therefore, the researchers decided to run parametric statistics. The same test was carried out on the scores of control group; the results are summarized in the table below.

Table 7. Exploring Distribution Normality of the Scores in Reading Comprehension Posttest of Control Group

		Postcontrol
	N	21
Normal Parameters ^{a,b}	Mean	52.81
	Std. Deviation	5.095
Most Extreme Differences	Absolute	.106
	Positive	.106
	Negative	-.086
	Kolmogorov-Smirnov Z	.886
	Asymp. Sig. (2-tailed)	.622

a. Test distribution is Normal.

b. Calculated from data.

Having a look at the Table 7 showing the findings of Kolmogorov-Smirnov test it can be concluded that the hypothesis of the test stating the deviation of scores from normal distribution is rejected since the significance level is $p = .62$, hence, it is inferred that the scores had a normal distribution. After checking the normal distribution of the scores in the posttests, two paired samples t-tests were used to check the research questions and examine whether Iranian EFL learners in control and experimental groups showed an improvement in reading comprehension in comparison to their initial performance at the beginning of the study. The descriptive statistics and statistical investigation of the null hypotheses are presented in the following Table.

3.5. Analysis of Data Obtained from Paired Samples T-test Comparing Pretests and Posttests

To address the posed first research questions stating whether timing of pre-reading activities have any significant differential effects on reading comprehension of Iranian EFL learners, first the performances of participants of control and experimental group were compared in the pre and posttests. The results are shown in tables 8, 9, 10 and 11.

Table 8. Descriptive Statistics of Participants' Pretest and Posttest Scores in Control Group

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre control	49.43	21	6.337	1.383
	Post control	52.81	21	5.095	1.112

According to the data in Table 8, the mean scores of control group in the pre and posttest were $M = 49.43$ and 52.81 respectively. Comparing the means from pretest to posttest, a difference is evident. Accordingly, a paired sample t-test was used to investigate the difference statistically.

Table 9. A Paired Samples T-Test Comparing the Mean Scores Obtained from Pretests and Posttest by the Control Group

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre control – Post control	-3.381	8.170	1.783	-7.100	.338	-1.896	20	.042

Taking the data illustrated in Table 9 into consideration and since $p = .04$, it was concluded that the observed difference between the mean scores from the pretest to the posttest was statistically significant. Therefore, the control group participants' reading comprehension showed a significant improvement in their reading comprehension performance. After examining the performance of control group, it was time to investigate the scores of the pre and posttests in the experimental group. Tables 10 and 11 show the results.

Table 10. Descriptive Statistics of Participants' Pretest and Posttest Scores in Experimental Group

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre experimental	47.58	24	8.439	1.723
	Post experimental	58.21	24	4.755	.971

According to the data in Table 10, the mean scores of experimental group in the pre and posttests were $M = 47.58$ and 58.21 respectively. Comparing the means from the pretest to the posttest, a difference is evident. Therefore, the researcher used a paired samples t-test to investigate the difference statistically.

Table 11. A Paired Samples T-Test Comparing the Mean Scores Obtained from Pretests and Posttest by the Experimental Group

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pre-experimental – Post-experimental	-10.625	9.254	1.889	-14.533	-6.717	-5.625	23	.000

In order to check improvement of participants' performance from the pretest to the posttest in the experimental group, the results of paired samples t-test are abridged in Table 11. The table revealed that $t(23) = 5.62, p = .00$, as a result, it was concluded that the observed difference between the mean scores from the pretest to the posttest was statistically significant indicating a significant improvement in learners' reading comprehension performance. This result is an indicator of effectiveness of the given treatment. To make sure that the improvement was due to the treatment, the results of posttests are analyzed in later sections. As the result of findings, the first null hypothesis was rejected and it was reported that timing of pre-reading activities had a significant differential effect on reading comprehension of Iranian EFL learners.

3.6. Analysis of Data Obtained from the Posttests at the End of the Study

The Second research question dealt with investigating the outperformance of either of the groups in reading comprehension posttest. To answer the posed question and test the related null hypothesis, the mean scores of two groups were compared. The results are shown in the following tables.

Table 12. Descriptive Statistics of Participants' Posttest Scores in Experimental and Control Groups

	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Posttest	experimental	24	58.21	4.755	.971
	Control	21	52.81	5.095	1.112

Table 12 shows the descriptive statistics of posttest scores in both groups including mean scores and standard deviations. According to the above table, the mean scores and standard deviations of experimental and control group are $M = 58.21, SD = 4.75$ and $M = 52.81, SD = 5.09$ respectively. A simple comparison of mean scores shows that the experimental group has achieved a higher mean score; however, a statistical test is needed to be done to indicate whether the difference was significant. The results of the test are summarized in Table 13.

Table 13. An Independent Samples T-Test Comparing the Mean Scores Obtained from Posttest
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							e	e	Lower	Upper
Post-test	Equal variances assumed	.383	.539	3.675	43	.001	5.399	1.469	2.436	8.361
	Equal variances not assumed			3.658	41.259	.001	5.399	1.476	2.419	8.379

According to the analysis elaborated in Table 13, the difference observed between the mean score of the control and experimental group was statistically significant since the significance level $t(43) = 3.67, p = .00$ was higher than set p value i.e. .05. The results indicate that participants of the experimental group were more successful than the other group in terms of reading comprehension which means that in this study using timing for pre-reading activities rather than immediate teaching after activities was effective in promoting learners' performance in reading comprehension in comparison to the control group. The

Second null hypothesis of the study stating Iranian EFL learners in the timed pre-reading activity group do not show better reading achievement than students in the control group was rejected. Hence, regarding the significant difference and comparing the mean scores it was concluded that using timing for pre-reading activities in EFL classrooms enhanced learners' reading proficiency than immediate teaching after the activities.

4. Conclusions

Communication is the main goal of language learning in recent years. Reading for the meaning is also a communicative process since the received message in written form will be converted to thought and knowledge. Reading is also a major component of learning a second or foreign language for different reasons. One of the important reasons is that unlike listening, students are able to control the speed at which they read. This fact can have a beneficial effect on language learning due to the fact that speed is a vital psychological, emotional and cognitive variable. Controlling speed can free reader from experiencing the stress presents in other skills such as listening in which they have no control on the speed rate at which they receive the message. Another advantage of reading for EFL or ESL learners is that when learners do lots of oral activities, reading can be used as a source of relief. Reading can also be used as a source of idea for other activities such as listening, speaking and writing. Furthermore, it is a genuine source of providing real world material for students as homework (Chastain, 1988). Therefore, it can be concluded that research on various strategies and techniques for improving this invaluable skill must be perennial.

The present study was conducted for the purpose of comparing Iranian EFL learners' reading comprehension ability before and after carrying out of timing three types of pre-reading activities, brainstorming-discussion, summarization and vocabulary elaboration. It was found that after applying the three pre-reading activities the subjects in the experimental group who were given some time to process the information given in the pre-reading activities before reading a text performed better in the posttest and developed their reading skills when compared with the performance of the participants in the control group who were asked to start the reading task immediately after fulfilling the pre-reading activities. Although both groups showed improvement in the posttest more probably due to the effect of pre-reading activities, the better performance of experimental group leads to the conclusion that timing these activities can assess the learners' information processing before actually applying them in the reading process. Therefore, this study is in the same vein as Mcnamara, Ozuru and Floyd (2011), Kulbrandstad (2003), and Ausubel (1963) claim using pre-reading strategies can enable students to connect to the content and comprehend the material.

Thus, improvement of both groups in posttest shows that pre-reading activities are effective in increasing comprehension and probably these activities can activate background knowledge of the readers.

4.1. Pedagogical implications

All pre-reading activities can help readers better understand the reading text. The pre-reading activities can help teachers facilitate the teaching process by increasing the comprehension of the reading task. The results of the study can also pave the way for teachers and material designers. The findings proved that timing pre-reading activities led to better performance, this means that pre-reading activities require various amount of cognitive processing. Material designers should pay attention to the cognitive processing time needed for various pre-reading activities before applying them in their materials.

4.2. Limitations and delimitations of the study

Limitations and delimitations while conducting this study are as follows. The participants were selected from four classes, two of them attended in the morning and two in the afternoon. Although the researcher tried to keep the situations for all the classes in the same way, various times of the classes may have affected the performance and motivation of the participants. It is probable that students for whom the course started at 8:30 in the morning were not ready to do a task that required full concentration.

A major delimitation of the study was that only three types of pre-reading activities including discussion-brainstorming, vocabulary elaboration and summarization were used in this study.

5. Ethics Committee Approval

The author(s) confirm(s) that the study does not need ethics committee approval according to the research integrity rules in their country (Date of Confirmation: 21.10.2020).

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Ön okuma etkinliklerinin zamanlamasının orta düzeyin üstündeki EFL öğrencilerin okuduğunu anlama üzerindeki etkisi

Öz

Bu çalışma, farklı ön okuma etkinliklerinin zamanlamasının yürütülmesinden önce ve sonra EFL öğrencilerinin okuduğunu anlama becerilerini karşılaştırmak amacıyla yapılmıştır. Bulguya dayanarak okuma-öncesi aktiviteleri gerçekleştirdikten hemen sonra okuma görevine başlaması istenen kontrol grubundaki katılımcıların sunumları arasındaki farklar dengelendiğinde, deney grubunun katılımcıları, ön okuma aktivitelerini uyguladıktan sonra, bir metni okumadan önce ön okuma aktivitelerinde verilen bilgileri işlemek için biraz zaman verildiğinde son testte daha iyi performans gösterdiler. Araştırmacılar, toplanan verileri analiz etmek ve sorulan araştırma sorusunun cevaplarını bulmak için Eşli ve bağımsız örneklem t-testlerini kullandılar. Her iki grup da okuma-öncesi aktivitelerin sonuçları nedeniyle son-testte daha fazla gelişme gösterse de, deneysel grubun daha iyi performans göstermesi, bu aktivitelerin zamanlamasının, öğrencilerin okuma işleminin süreç bilgilerini gerçekte uygulamadan önce değerlendirebileceği sonucuna yol açmaktadır.

Anahtar sözcükler: anlama; yabancı dil olarak İngilizce; EFL öğrenen; ön okuma etkinlikleri; beyin fırtınası tartışması; özetleme; kelime hazinesi; orta düzey ustü.

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