

## PHRASE READING: ITS IMPACT ON EFL ORAL READING FLUENCY AND READING COMPREHENSION

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### ABSTRACT

**T**he aim of this study was to examine the effectiveness of phrase reading on EFL English majors' oral reading fluency and reading comprehension. Forty-four junior students were conveniently selected and assigned to two groups: experimental group and comparison group. Phrase-reading instruction was presented to experimental students while no training was given to those in the comparison group. The results revealed that students in the treatment group significantly outperformed those in the control one in reading speed and comprehension. Also, a correlation was found between oral reading fluency and reading comprehension. The results from the study provide grounds for some implications to be drawn in terms of reading strategies instruction.

*Keywords: Phrase reading, oral reading fluency, reading comprehension*

## 1. Introduction

Reading is considered to be a complex process (Carrell & Grabe, 2002; Anderson, 2003; Snow, Sweet, Alvermann, Kamil, and Strickland (2002). Grabe (2009, p. 14) identifies ten processes that fluent readers often use. These can fall into the following categories: fluency, strategy, interaction, flexibility, and evaluation. In second language contexts, (Carrell & Grabe, 2002; Nunan, 2003), various attempts have been made to help learners become fluent ones. Fluent reading involves various processes mentioned which lead to the ultimate goal - comprehension (Anderson, 2003 in Nunan). L2 reading educators often mention such terms as skimming, scanning, reading for ideas, reading for critical evaluation (Carrell & Grabe, 2002), which suggest different skills of lower-level and higher-level processing abilities. However, if reading also concerns itself with the fluent process, then more effort should be focused on this aspect of reading. For, to our personal observations within the setting of Viet Nam, second language (L2) instructors tend to focus on what has been described much in TESOL reading literature - top-down processing skills - to the sacrifice of reading fluency.

Fluency is integral to efficient reading abilities which lead to comprehension (Grabe, 2009). It consists of such components as automaticity, accuracy, and rate (Kuhn & Stahl, 2003). Based on Grabe's account (2009), some main features of the three notions can be outlined. Automaticity refers to a quick processing operations which are resource-free, not subject to interference, unconscious, and hard to suppress. Accuracy involves the recognition skills at three levels : subword, word, and text (Breznits, 2006 ; Perfetti, 2007; Torgesen, Rashotte, Alexander, 2001; Wolf & Katzir-Cohen, 2001, cited in Grabe, 2009). Rate is concerned with the assumption that comprehension can be reached at a level of ease when going through "an extended text". L1 fluent readers are reported to be able to achieve the rate of 300 wpm when reading different types of texts (Carrell & Grabe , 2002, p. 342).

The three sub-components of reading fluency mentioned should be important in L2 academic contexts, though much discussion has so far been found in L1 literature. First, reading fluency is an essential part of skilled reading. To the National Reading panel (2000, p.3), low achievers in fluency "may have difficulty in getting the meaning of what they read". A reader, for instance, may fail to comprehend if he or she cannot recognize a word or word structure accurately (Grabe, 2009, p. 291). Second, reading fluency may assist L2 students if they want to be successful in university settings, namely when they study in an English-speaking country. Their improvements in reading rate will help them manage large amounts of reading material that might be assigned every week (Grabe, *ibid*). For it has been contended that L2 learners with fair comprehension achieve one-third the rate of an L1 student (Grabe, *ibid*.)

Given the importance of reading fluency, it is noted, based on our personal observations, that reading fluency has not been paid much attention to in the context of L2 instruction in Viet Nam. What instructors in higher education settings concern themselves with is to provide students with strategies of getting meaning from context as described above. One kind of strategy that might be connected with one component of fluency –reading rate- and that is often used in L2 classrooms is skimming. Instructors teach students this strategy to help them explore main ideas. The only knowledge that the students might get from their teachers is that they have to read fast. They may try to read fast, but they have no knowledge of how to read fast. Should they read fast by moving their eyes over the printed text word by word? Or should they move their eyes over groups of words?

The questions have provided the basis of formulating the objectives of this study. The study attempted to test the effectiveness of phrase reading as a way of improving L2 learners' reading fluency and comprehension. What follows is a review of the literature of the studies in L2 reading. The review will reveal that few studies have been conducted in this area.

## *1.1 Literature Review*

### *Phrase reading*

According to Henk (1986, as cited in Nichols *et al.*, 2009), “phrase reading is an excellent strategy for promoting students’ ability to read in syntactically appropriate and meaningful idea units or phrases, in order to understand what they read, and to increase automaticity in word recognition and enhanced comprehension” (p.7). Smith (1978) also suggested that readers need to chunk words into larger meaningful units in order to facilitate better comprehension. This author referred to phrases as “the process of storing the largest meaningful unit of information in short term memory” (p.49). Kuhn and Stahl (2003) shared Smith’s idea, maintaining that a reader’s comprehension might be specified whenever his or her proper competence of chunking word bundles into phrases and meaningful units is ascertained. Reading experts argued that the reader’s ability to read in phrase is necessary for fluent, proficient reading (Allington, 1983). The National Reading Panel Report (2000) indicated that reading fluency typically include elements of grouping or chunking words into appropriate phrases. This idea was further developed by Allington (2006) who contended “fluency is reading in phrases, with appropriate intonation and prosody - fluency is reading with expression” (p.94).

It can accordingly be asserted that phrase reading can help readers speed up their reading. This is because they can read a phrase at a time which can be quite helpful to the readers in terms of reducing eye fixations and pause in reading a sentence. Many researchers who were interested in improving students’ reading abilities conducted experiments to see precisely what happened in their reading process. They discovered eye fixations have effects on reading speed. Sutz (2009) asserted that “the fewer eye fixations you have when reading, the faster you read” (p.36). This is undoubtedly worth noticing.

Nichols *et al.* (2009) argued that “phrase reading is helpful in terms of reducing word-by-word reading, which is a major roadblock to successful fluent reading and freeing capacity for higher-level comprehension” (p.7). In other words, reading word-by-word can have negatively effects on fluent reading and higher-level interpretation stage in the comprehension process. In fact, when readers read with phrase reading, their eyes fix on phrases. This reading strategy prevents them from processing texts word by word, but rather phrases by phrases. By reading in phrases, the readers will expand the fixation zone, reduce the fixation time then improve their reading speeds. Limited fixation time given to the reader’s eyes is also very important because the shorter fixation time, the more reading speed improves. Hence, phrase reading can help readers improve their reading fluency.

In addition to improving reading fluency, phrase reading can also help readers gain better reading achievement (Rasinki, 2003). When learners read by moving from phrases to phrases rather than from word to word, one phrase provides meaning to the next phrase. They will comprehend better because the context and meaning of each sentence is more apparent when they read words in phrases (Sutz, 2009, p. 119).

### *Prior Research*

#### *Studies on the impact of phrase reading on reading fluency and reading comprehension*

O’Shea and Sindelar (1983) examined the efficacy of segmenting written discourse into meaningful phrases to improve comprehension scores on a maze task. The participants were 83 first- through third-grade students randomly selected from elementary schools in a small city school district in central Pennsylvania. They were categorized as low or high performers based on measures of reading speed and accuracy. The children were asked to complete two maze tasks at the third-grade reading level - one segmented and one standard typographic passage. The results indicated that segmenting sentences into meaningful units aided both high- and low-performance readers. Correlation analysis showed that the effect of segmenting text was

especially pronounced for slow but accurate readers. However, the subjects of O'Shea and Sindelar's study were elementary students; to examining the effectiveness of this strategy accurately, there should be studies on older subjects. The next study would carry out this mission.

Casteel (1990) conducted a study to examine whether text-material presented in "chunks" or phrases would significantly improve the reading comprehension of 50 eighth-grade students (32 females and 18 males) from a public middle school within Jefferson Parish, Louisiana. The participants were divided into two reading-ability groups; the high ability and the low ability. The performance of each group was compared to determine if there are any differences in ability to comprehend text-material presented in "chunked" style. The test results revealed that the low-ability readers's scores significantly affected by "chunked" style material. Whereas, the high ability readers showed marginal or no gain on test scores. This means that "chunking" sentences into meaningful unit aids the low-ability readers more than the high-ability readers. The results also indicated the strengths of the strategy but it is difficult to assert that participants have fully applied the strategy into their readings. This gap would be fulfilled in the report below.

LeVasseur et al (2006) conducted two experiments aiming at investigating the effects of syntactically segmented texts on oral reading fluency with the developing readers. The first experiment readers were 35 children of the second and third grade classes from two urban elementary schools in Rhode Island, U.S. The second experiment readers consisted of 26 children attending two third grade classes from a suburban public school in south eastern Massachusetts, U.S. The participants required to read aloud the passages of two texts format conditions: The Structure Preserving Condition (S.P.C), the ends of lines coincided with ends of clauses; and The Phrase Disrupting Condition (P.D.C). The S.P.C is where the end of the lines coincided with the end of clauses. The P.D.C is where the line breaks and got interrupted by the "phrasal unit". The results of experiment 1 showed that children achieved higher rates of oral reading fluency in the S.P.C than in the P.D.C. In addition, with the S.P.C children experienced fewer "false starts" at the beginning of the sentence. The experiment 2, which was targeted at slightly older children (teenagers) where the texts were written at a higher level, confirmed both findings.

All of the three previous studies were conducted in L1 settings, so Yamashita and Ichikawa (2010) carried out a study to investigate the relationships between chunking, L2 reading fluency and comprehension. The study involved 48 Japanese EFL participants from both intermediate and advanced levels. A self-paced reading was used to explore the effects of text segmentations on speed and comprehension in L2 reading by adopting four text modes: the Whole Text, the Single Word (word-by-word), the Meaningful Chunk (chunk-by-chunk), and the Fragmented Word Groups (fragment-by-fragment). The results illustrated that the intermediate learners had more negative effects on reading comprehension and reading fluency than advanced learners on "chunking difficulty". By observing both negative and positive effects of chunking difficulty; the positive effects chunking of chunking have not detected. This means that the relationship between chunking and reading needs to be considered in order to measure the complexity of different aspects of reading.

#### *Studies on the relationship between reading fluency and reading comprehension*

Rasinski et al (2005) conducted a study to assess the decoding accuracy and fluency levels of 303 ninth graded students from a moderate-sized urban district in the U.S. Midwest. The students were asked to test orally. The researchers used a one minute reading probe, also known as Curriculum-Based Measurement in reading or oral reading fluency Assessment. The students were individually tested by reading a ninth graded level for one minute. Then, the researchers obtained students' scores on the state high school graduation test, known as Silent Reading Comprehension Test. The purpose of this test was to investigate the relation between reading fluency and comprehension. The findings suggested that lack of reading fluency could be

an important cause of reading comprehension difficulties among secondary school students. Some attentions or supports should be given to students that are not fluent with their readings which can be a significant improvement in reading comprehension and overall academic performance across the content areas. However, oral reading fluency and reading comprehension assessments need to be carried out at the same time otherwise the assessment may not be valid.

Talada (2007) filled the gaps of the above study by carrying out a quantitative study to investigate the relationship between oral reading fluency and comprehension. The study was carried out on a total of 68 participants both from second and third grade students at a private Catholic elementary school in Elmira, New York. The fluency scores were generated for each student by using the oral reading fluency testing component of Dynamic Indicators of Basic Early Literacy Skills (DIBELS). The DIBELS assessment was a test produced by the University of Oregon and was given to an individual student. The students' comprehension abilities were assessed by using the TerraNova assessment generated by McGraw-Hill Publishing Company. The TerraNova Basic Multiple Assessment is a standardized test produced by the McGraw-Hill publisher which offers a variety of methods to cohesively assess the reading comprehension. These scores were then statistically used to compare and determine the relationship between oral reading fluency and comprehension. The results revealed that there was a reciprocal relationship between oral reading fluency and comprehension. This means that if a reader can read fluently then his or her abilities to comprehend can also be improved. However, reading fluency can be performed in many different levels and the problem with Talada's study is that it does not focus on different levels of fluency. This weakness will be filled in the following study.

Klauda and Guthrie (2008) examined the relationships of three levels of reading fluency; the individual word, the syntactic unit and the whole passage of reading comprehension among 278 of the fifth grade students from thirteen classrooms in a small city in Atlantic state of America. These three measures combined with another additional measure known as "the single measures" of the reading comprehension inferences the background knowledge of the study. The statistical results revealed that reading fluency at each level related to performance on a standardized reading comprehension test including inferencing skills and background knowledge. The study supported an automaticity effect on word recognition speeds and an automaticity effect related to syntactic processing skills. In addition, the hierarchical regressions of using longitudinal data suggested that fluency and reading comprehension have a bidirectional relationship.

Wise *et al.* (2010) conducted a study to examine whether different measures of oral reading fluency relates to reading comprehension performance. There were 1095 participants of the second grade students participated in different reading intervention studies. The participants were divided into two sample groups; A and B. The students in group A mainly have difficulties with nonsense-word oral reading fluency, real-word oral reading fluency, and oral reading fluency of connected texts (n = 146). The students in group B were only have difficulties with oral reading fluency of connected texts (n = 949). The data analyzed the measures of non sense-word oral reading fluency, real-word oral reading fluency, oral reading fluency of connected texts and reading comprehension that collected at the pre-intervention point. The correlational and path analyses indicated that real-word oral reading fluency was the strongest predictor of reading comprehension performance in both sample groups, across average and poor reading comprehension abilities.

The results of the research provided some weak and strong points about the effectiveness of phrase or chunk reading. The most significant strategies that students read more effectively is grouping or “chunking” words into syntactically meaningful phrases. O’Shea & Sindelar (1983) noted that segmenting written discourse into meaningful phrases aided both high- and low-performance readers. Also, chunking texts into meaningful segments have proven usefulness to some readers, particularly the weaker readers who may lack this skill (Casteel, 1990). By reading in phrases, readers can make gradual transitions from identifying individual word to reading more meaningful phrases. This means that readers do not process the texts by reading word by word but phrases by phrases. They expand the fixation zone; reduce the fixation time to improve their reading speeds, which considered being an important component of reading fluency and comprehension. Furthermore, when students read by jumping from phrases to phrases rather than from word to word will also help them with understanding the meaning of the next phrase. They will comprehend better because the context and the meaning of each sentence are more apparent when they read words in phrases (Sutz, 2009, p. 119). Another significant contribution from the previous studies is that reading fluency, especially oral reading fluency, plays an important role in the processes of comprehension. LaBerge and Samuels’s (1974) theory of automaticity in reading also revealed an explanations for the connections between fluency and comprehension.

Although the reviewed studies indicate considerable strong points that should be drawn for language learning and teaching, there are still some inadequacies. First, most of the studies were carried out for young learners like primary and secondary students. Therefore, they might not be significantly effective for examining adult subjects. This is because age factor can affect learners’ language acquisition. Second, these studies were aimed to investigate the effect of phrase or chunk reading on reading comprehension in general. The researchers have not studied the impact of this strategy on different types of comprehension such as comprehension of main ideas, comprehension of details. Third, how to identify meaningfully grammatical units or phrases was not found in the previous studies.

The research gaps drawn from the above studies provide useful ideas to the present researches. This study, therefore, attempts to fill the gap mentioned above as well as making contributinal ideas to the existing researchers about reading comprehension and fluency. Specifically, this study is carried out in EFL setting for the EFL learners at college level. Additionally, the impact of phrase-reading strategy on different kinds of comprehension of reading will be investigated. The methods of identifying differently grammatical phrases will be also introduced.

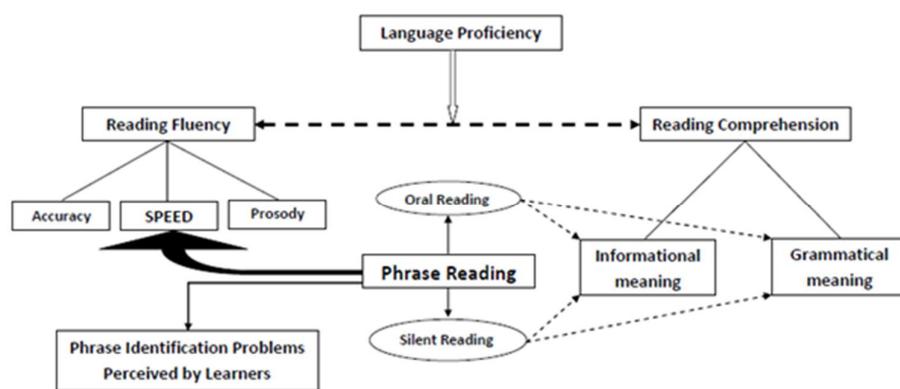
#### *Conceptual framework*

The previous section has outlined a brief of the relevant theoretical aspects, including both shared and contradictory ideas as well as the available empirical validations for them. The fact that those findings failed to provide a satisfactory answer to the reading paradigm has supposedly paved the way for this research. In an attempt to mitigate any potential issues that might arise in the study, the conceptual framework was carefully shaped to guide the researcher through each step of the whole investigation procedure, concerning a number of core facets.

Firstly, there was a long-held consensus among researchers in the field claiming that phrase reading is highly effective in boosting reading comprehension, with Nichols and Rasinki’s proposition being the most intriguing. The succession of the studies carried out by O’Shea and Sindelar (1983), Casteel (1990) and Yamashita & Ichikawa (2010) also reaffirmed the effectiveness of this strategy via the conformity they came up with. Yet, it may be worth noticing that all of these studies tapped on a merely peripheral realm of reading comprehension without further probing the integral constituents which tacitly comprises the term

comprehension itself. Therefore, the present study strives for a more rigorous analysis by reformulating the conventional conceptual framework for reading comprehension, taking two aspects namely grammatical meaning and informational meaning into consideration. Those are the two dimensions proposed by Cohen (1994) in the book entitled *Assessing Language Ability in the Classroom*, discerning the syntactic patterns and ideas units as well as the relationship among them in the target reading text. Phrase reading is operationalized through oral reading and silent reading, therefore, these two forms of reading are used to measure the impact of phrase reading on reading fluency and comprehension.

In addition, despite the fact that reading fluency is a prime target and the route leading to it an informative and concise way, readers' age range, proficiency level and the thought-provoking issue of whether or not and to what extents reading comprehension effects the readers. The prime reason for conducting the research was either to find favorable ways of supporting the pre-defined subject on the young age group readers or prone to the lack of careful consideration for the correlation among those variables. It is credible to believe that the readers' age factor and proficiency should always pertain to the exploration performed in this study. Moreover, when reading in phrases, students may find it challenging in phrase identification which was examined through the questionnaire. Briefly, on the theoretical grounds provided, the course of actions devised for this study will strictly follow the aforementioned framework in order to satisfactorily fulfil the aims of this research.



## 1.2 Research Questions

1. Do students in the group treated with phrase-reading strategy significantly outperform the control group in terms of:
  - a) The speed which was measured by the Oral Reading Fluency and Silent Reading Fluency Tests?
  - b) The comprehension of informational meaning and grammatical meaning as measured by the PET?
2. Could there be a positive relationship between EFL oral reading fluency and EFL reading comprehension?

## 2. Method

### 2.1 Participants

The numbers of participants taking part in the study were 44 from 2nd year of senior English students who were members of the K8 cohort, between ages of nineteen to twenty-two. They were then assigned into two groups on the basis of their grades in the proficiency test. The experimental group has 22 students and the control group also consisted of 22 students. Both groups were placed in the same level in their proficiency test scores. According to the results of the proficiency test administered at the beginning of the study, the average scores for the experimental group was 5.42 and the average scores for the control one was 5.50.

### 2.2 Materials

#### *Proficiency test*

The Oxford Placement Test of Allen (2004) was administered as a proficiency test to examine the relationship between language proficiency and reading speed, the language proficiency and reading comprehension. The Oxford Placement Test (OPT) consisted of listening and grammar sections. However, the grammar one was only used. This section consisted of 100 items. The OPT test was a multiple-choice task and the completion duration was sixty minutes.

#### *Oral reading fluency on pre- tests and post-tests:*

The oral reading fluency tests consisted of oral reading fluency pre-test and oral reading fluency post-test. An English passage taken from the textbook *Interactions 2 – A Reading Skills book* (2nd edition) was used as the oral reading fluency pre-test. The passage consisted of 137 words and divided into 37 grammatically meaningful phrases. The oral reading fluency Post-test was an example of a phrase-cued text taken from the *Elementary Literacy 2010*. This example was an English passage consisting of 137 words and divided into 33 phrases which were grammatical and meaningful. The time of administering the pre- and post-tests measured at the beginning and the end of the experiment. Individual student was asked to read the passage aloud for one minute for recording. The purpose of these tests was to test students' speed of reading and explores the relationship between oral reading fluency and reading comprehension in the two groups before and after the treatment.

#### *Silent Reading Fluency pre- and post-tests:*

The purpose of silent reading fluency tests was to assess students' reading speed and explore the relationship between language proficiency and reading speed. Two texts and accompanying exercises were selected for pre- and post-tests. A reading text consisted of 726 English words and an accompanying exercise with ten True/False-statements from McGraw-Hill's Online Learning Center was chosen for the pre-test. The silent reading fluency post-test was a reading text taken from the textbook *Interactions 2 – A Reading Skills book* (4th edition). This reading text consisted of 6 passages with 823 English words and a ten True/False-statement exercise accompanied for checking the main ideas of the text. The time limit for reading the passage and doing the accompanying exercise was eight minutes for the pre-test and nine minutes for the post-test. These two texts were administered for two groups before and after the treatment.

#### *Reading comprehension pre- and post-tests*

In order to measure the reading comprehension, the Reading Component of the Preliminary English Test (PET) was used as a reading comprehension test to gauge the students' reading performance. The reading component of the PET test 2 in book 2 was used for the pre-test and the reading component of the PET test 4 in book 6 for the post-test. Both of these two tests were similarly designed in terms of structure, level of reading ability, length and time allotted.

The PET comprised of 35 questions with five separate parts of reading tasks. Part 1 contained five multiple-choice questions. Corresponding to the questions were five public signs, notices, or labels, each with a short text. To answer the multiple-choice questions, students had to read these signs and notices for main ideas. Part 2 consisted of five matching questions. The aim of this part of the test was to test students' detailed comprehension of factual material. To do this, students would have to read five short descriptions within a group of five, where their reading abilities had to be matched with one of the eight short, factual texts on a particular topic. Part 3, had ten true/false questions. These questions aimed to test students' ability to work with a longer and factual text by scanning for specific information. To scan for specific information, students had to read texts of about 400 words in the form of brochure extracts, advertisements in magazines and website information. Part 4, consisted of five multiple choice questions. These questions designed to test whether or not students understand the writer's purpose, the writer's attitude or opinion, or an opinion quoted by the writer. To answer these questions, students required to read a text of about 200 words that went beyond the provision of factual information, and expressed an opinion or attitude. Part 5 had ten closed multiple choice questions. These questions designed not only to test on vocabulary but also grammatical points such as pronouns, modal verbs, connectives and prepositions. In order to do this, students had to read through the whole texts to establish its topic and general meaning. Then, they had to select the correct word to fit in each space. Fifty-five minutes was the allowed time for completing this test.

### *2.3 Procedures*

The experiment was carried out within fifteen weeks from August 29th to December 11th, 2011 and divided into three consecutive stages. These stages are presented in details in the following sub-sections.

#### *Pre-treatment stage*

In order to draw the desired samples for the study, a pilot study and a proficiency test were given to all students in the English class coded as K8. A questionnaire-based survey was briefly carried out at the beginning of this stage for investigating students' reading references, reading process, knowledge of phrase-reading strategy, and their self-evaluation on reading speed. Then, a proficiency test was administered in this stage to check the proficiency of each student in the class. The results of the proficiency test based on the two experimental sample groups; the experimental and the control groups which took two weeks for the experiment to be completed.

#### *Treatment stage*

This stage was carried out within twelve weeks to experiment an oral reading fluency, a silent reading fluency and a reading comprehension pre-tests on both the experimental group and the control group. Then, the phrase reading instruction was introduced to students in the experimental group while the control group received no treatment. Every week, two reading lessons which last 90 minutes and an extra ten minutes lesson on knowledge of grammatical phrases was also provided to the experimental group. Noun phrase with pre-modifiers, noun phrases with post-modifiers, prepositional phrase, infinitive phrase, adjective phrase, and verb phrase were respectively introduced.

#### *Post-treatment stage*

An oral reading fluency, a silent reading fluency and a reading comprehension post-tests were given to both groups in the last week of the experiment. The scores of these tests were calculated and synthesized through the Statistical Package for the Social Sciences (SPSS) of version 13.0 for Windows. The T-test for independent samples was used to compare performance in oral reading fluency, silent reading fluency, and comprehension tests between the control and the experimental groups. The bivariate correlations were computed for checking the relationship among students' proficiency, oral reading fluency and overall reading comprehension competence.

### 3. Results

#### 3.1 T-test results on oral reading fluency, silent reading fluency and reading comprehension tests

As can be seen from Table 1 below, experimental students' reading speed and comprehension increased after the treatment. The T-test was employed to calculate and compare the mean and standard deviations of the pre and post-tests between two groups to affirm whether or not there was statistically significant difference in the students' oral reading speed and silent reading speed before and after the experiment. The results obtained showed that there were statistical differences in reading speed between the experimental group and the control group in the post-tests in both the oral reading fluency test ( $p = .000$ ) and silent reading fluency one ( $p = .001$ ) while there were no statistical differences found in the oral reading fluency pre-test ( $p = .834$ ) and silent reading fluency pre-test ( $p = .206$ ).

There were statistical differences found in reading comprehension between the experimental and the control groups. The mean for the experimental group was higher than that of the control group with 6.83 for the former and 6.02 for the latter in the post-tests. This congruity resulted in a sig. (2-tailed) value of .012 while this value in the pre-test was .845. Hence, the above results obviously demonstrated that the students in experimental group were significantly more competent with reading speed and comprehension than those of the control group, which perfectly matches the speculated hypothesis.

*Summary of the T-test results on oral reading fluency, silent reading fluency and reading comprehension tests*

Table 1.

Tests	Group	Number	Mean	SD	Sig. (2-tailed)
<b>Oral Reading Fluency Pre-test</b>	Experimental	22	5.98	.601	<b>.834</b>
	Control	22	6.02	.540	
<b>Oral Reading Fluency Post-test</b>	Experimental	22	7.65	.639	<b>.000</b>
	Control	22	6.11	.581	
<b>Silent Reading Fluency Pre-test</b>	Experimental	22	7.64	.625	<b>.206</b>
	Control	22	7.87	.533	
<b>Silent Reading Fluency Post-test</b>	Experimental	22	8.47	.520	<b>.001</b>
	Control	22	7.89	.587	
<b>Reading Comprehension Pre-test</b>	Experimental	22	5.83	.092	<b>.845</b>
	Control	22	5.90	.125	
<b>Reading Comprehension Post-test</b>	Experimental	22	6.83	.093	<b>.012</b>
	Control	22	6.02	.109	

The study involved two types of reading comprehensions: (1) informational meaning (comprehension of main ideas and comprehension of details) and (2) grammatical meaning (word choice performance). The results on these kinds of comprehension are reported as follows:

In the pretest, as can be seen from Table 2, the experimental students' reading comprehension of main ideas was not substantially distinct from that of the control ones. The statistical results indicated that the mean score of the experimental group was 5.22 and that of the control group was 5.77. The P value or Sig. (2-tailed) was .347. The results also showed that there were no statistical differences in students' reading comprehension of details between two groups because the P value found was .889. Similarly, no differences were found between the two groups before the treatment in the word choice performance. The mean score of the experimental group was 5.86, which was not significantly different from that of the control group which was 5.63. The sig. (2-tailed) value was .600. This concluded that experimental students did not differ

considerably from those of the controlled ones in reading comprehension of main ideas, comprehension of details and word choice.

*Summary of the T-test results on reading comprehension of main ideas, comprehension of details, and word choice performance in pre-test*

Table 2.

Reading comprehension pre-test	Group	Number	Mean	SD	Sig. (2-tailed)
Reading comprehension of main ideas	Experimental	22	5.22	.160	<b>.347</b>
	Control	22	5.77	.216	
Reading comprehension of details	Experimental	22	6.21	.131	<b>.889</b>
	Control	22	6.15	.155	
Word choice performance	Experimental	22	5.86	.125	<b>.600</b>
	Control	22	5.63	.159	

It is obvious from table 3 that the group treated with phrase reading achieved significantly higher scores on comprehension of main ideas and comprehension of details than those in the control group in the post-test. In comprehension of main ideas, the mean 6.68 of the experimental students was far better than that of the control subjects which was only 5.55. The statistically significant difference was also proved through the P value of .037. In the comprehension of details, the results showed that there were statistical differences between two groups ( $p = .041$ ). However, the results also revealed that students in the experimental group have not achieved much different compared to those in the control ones in terms of word choice because the “p” value found was .213. It is also illustrated that the experimental group has significantly outperformed the control ones in comprehension of main ideas and comprehension of details.

*3.2 Summary of the T-test results on reading comprehension of main ideas, comprehension of details, and word choice performance in post-test*

Table 3.

Reading comprehension post-test	Group	Number	Mean	SD	Sig. (2-tailed)
Reading comprehension of main ideas	Experimental	22	6.68	.139	<b>.037</b>
	Control	22	5.55	.204	
Reading comprehension of details	Experimental	22	6.90	.106	<b>.041</b>
	Control	22	6.18	.122	
Word choice performance	Experimental	22	6.86	.158	<b>.213</b>
	Control	22	6.27	.152	

*Correlation between oral reading fluency and reading comprehension*

As far as the relationship between the oral reading fluency and reading comprehension is concerned, the results from the correlation test in Table 4 illustrated a significant and positive relationship between the oral reading fluency and reading comprehension in terms of correlation coefficient which was .684 and the comprehension was .000.

*Correlation results between oral reading fluency and reading comprehension*

Table 4.

Correlations		Oral Fluency	Reading	Comprehension
Oral Reading Fluency	Pearson Correlation		1	.684**
	Sig. (2 tailed)			.000
	N		22	22
Comprehension	Pearson Correlation		.684**	1
	Sig. (2 tailed)		.000	
	N		22	22

\*\* Correlation is significant at the 0.01 level (2-tailed)

## 4. Discussion and Conclusions

### 4.1 Discussion

#### Research question 1:

#### Significance of eye fixation:

The findings of significant differences between the mean of the experimental group and the control group showed that students which were treated with phrase reading instructions have significantly outperformed the students in the control group in terms of reading speeds on both silent reading fluency and oral reading fluency. In the oral reading fluency posttest, the mean of the experimental group was 7.65 which is higher than that of the control group by 1.54 (6.11). Simultaneously, the mean score of the experimental group in the silent reading fluency posttest was 8.47 and that of the control group was 7.89 ( $p = 001$ ). Therefore, we can say that phrase-reading strategy can help students with improving their reading speed. In fact, with phrase reading, the reader's eyes fixed on phrases; they did not process a text word by word but rather phrases by phrases. The ability of fixing the eyes on phrases rather than on words clearly helps speeding up the time of reading. If the eyes can be fixed on phrases, this suggests that students do not have to fix their eyes many times on separated words because it reduces the fixation time, therefore, improve the speed of reading. In addition, if students are trained to be familiar with fixing their eyes on phrases then the fixation zone can be expanded. And if the fixation zone is expanded to cover all components of a phrase, obviously, the oral fluency will be affected. This confirms that Sutz (2009) was right with his statements "the fewer eye fixations when reading, the faster they can read". The results also agreed with what Nichols, Rupley and Rasinski (2009) have stated "phrase reading is helpful in reducing word-by-word reading, which is a major roadblock to successful fluent reading". Phrase reading can help students develop not only their reading speed but also their reading comprehension. This will be discussed in the next section.

#### Comprehension

The results of this study have confirmed these researchers' ideas about how much reading in phrases can support comprehension (Rasinki, 2003; Kuhn and Stahl, 2003; Iwahori, 2008). It was found that the experimental group achieved 6.83 whereas the control group only achieved 6.02;  $p = .012$  in reading comprehension. According to Sutz (2009), where he suggested that sentences are composed of different thought units can be expressed as a complete idea. Each thought unit is conveyed by a group of words. If students are able to spot word groups in a single eye fixation, their comprehensions will clearly improve. Rayner (1986) also shared Sutz' ideas when he contended that "skill readers [should] learn to develop a broader perceptual span or word identification span during reading that allows them to take in more information about words in a single fixation."

Another reason why reading in phrases can help improve comprehension may lie in the fact phrases provide context for comprehending the following phrases in a sentence. Sutz (2009) maintained that when students read by jumping from phrases to phrases rather than from word to word, they can get the meaning of the following phrase based on the previous phrase. The previous phrase will create a context for understanding the following one. As such, students do not have to reread or consult a dictionary if they happen to find a word they do not understand.

However, one question can be raised concerning the fact that the null hypothesis was not nullified ( $t = 6.86$ ;  $p = .213$ ) when students performed the word choice in the PET. One possible explanation is that phrase-reading has to do with speed and is suitable in grasping informational meaning. Word choice requires a "local" comprehension which does not fit speed reading. If students want to perform the word choice section in the test (i.e. PET), it might be assumed that repeated reading should be applied besides phrase-reading strategy.

#### *Research question 2:*

The results indicated that oral reading fluency and reading comprehension were significantly correlated ( $p = .000$ ). The reported Pearson correlation coefficient ( $r$ ) was .684, indicating a moderate positive correlation. Considering the coefficient of determination, it can be said that approximately 47% of the variance in reading comprehension can be attributed to oral reading fluency, or vice versa. This partly confirmed with what Fuchs et al. (2001, p.239) have commented "oral reading rate is a good predictor of reading comprehension".

Overall, this result can be explained by assuming that the ability of accessing stored mental orthographic images as being part of fluency, should be a key factor that leads to successful reading comprehension. To be able to comprehend the meaning of texts, the reading input should be resulted from different operations that occur in the mind. The process of figuring out the meaning of the text may result from the ability of accessing the stored mental orthographic images (Masterson & Apel, 2006), which provides a basis for making semantic connections at the sentential and textual level. It is also provided the ability to link current textual information with previous textual information. In other words, reading comprehension is accomplished through two separate paths: the lexical route and the non-lexical route (Castles, 2006, as cited in Wise et al., 2010). The lexical route involves accessing stored mental orthographic images; the non-lexical route involves decoding graphemes into the phonemes of oral language.

Another possible explanation for the positive correlation between oral reading fluency and reading comprehension is that comprehension processes cannot occur without the involvement of the lower level word recognition process and the higher level interpretation one. It is possible to say that the completion of the higher level process will be impossible without the completion of lower level process. Fuchs et al. (2001, p.242) advocated the idea of automaticity that efficient lower level word recognition frees up the capacity for higher level of an integrative comprehension processing of text. This, therefore, is a good point for assuming that oral reading fluency serves as a performance indicator of overall reading competence.

#### *4.2 Conclusions*

The results of this study have answered the research questions set out above. Firstly, phrase reading is a way of assisting students with achieving better reading speed as well as reading comprehension. Secondly, grammatical proficiency is not a predictor that determines success in reading speed and reading comprehension. Thirdly, the positive relationship between students' oral reading fluency and comprehension may confirm what has been claimed in previous studies in L2 settings.

## 5. Implications

The results have also provided definite implications on phrase reading for classroom teachers and textbook developers.

Firstly, phrase reading is what teachers or lecturers need to focus on if they want to improve their students' reading speed, which has recently received more attention from the academia where considerable amount of overflowing information provided by today world's media. It would be a disadvantage for students that still apply to the word-by-word reading technique because they cannot compete with the students that can make quick decisions based on the ability of "digesting" more information within the constraint of time.

Secondly, phrase reading can be incorporated within the skimming process as a reading strategy. The vague instruction of "reading fast" can get a clearer focus if students know how to read fast. Given the main aims of skimming is to get the main points in a reading passage, therefore, phrase reading is the "best candidate" for helping students with achieving their reading skimming aims.

Thirdly, teaching phrase reading involves teaching students how to identify phrases. This suggests that the knowledge of phrase categories should be introduced before getting students involved in the practice of fixing their eyes on texts. Also, phrase reading is likely to be more powerful if a consideration of the order of the kinds of phrases to be pedagogically presented is taken into account. For example, students might be introduced to those kinds of phrases that the heads are found to be on the far left (e.g. to-infinitive phrases or prepositional phrases) before they are exposed to those in which their heads are located in the far right (e.g. noun phrases). Subsequently, those post-modified noun phrases can be introduced before the pre-modified ones. This means that the post-modified noun phrases, the head nouns are found in the far left which boost their capacities of identifying noun phrases in a more complicated structure.

Fourthly, the tasks and exercises related to eyes training are an aspect of psychomotor skills which can be advanced after the structures of phrases have been introduced. Students need to be acquainted with the combined effort related to physical and mental activity when fixing their eyes on phrases. This suggests that in order to create eye strain for students, they should be trained first with identifying short phrases before intensive training is given with longer phrases. Once the ability of combining physical ability (i.e. eye fixation) with mental ability (i.e. phrase identification at the level of form and meaning) fluency will result. This will enhance the process of comprehension.

## 6. Limitations

Although much effort was devoted to planning and implementing the research, several limitations were inevitable.

The first weakness worth mentioning is the fact that using a sample of convenience is not valid enough for the results to be generalized to the entire population. However, based on the samples selected, the results can be a source of reference concerning the characteristics described such as age, language proficiency and learning experiences.

The experimentation was fairly small in size, which unavoidably placed the study at a perceivable detriment. Admittedly, for almost all educational quantitative study, a bigger scope will further improve the reliability degree. Given such an important red flag, careful consideration should be made in order to avoid over-optimism in the generalization procedure.

Moreover, the equipment conditions supporting the study were inadequate. There should have been video recorders for examining students' eye movement to check whether they applied phrase-reading strategy. The identified should provide a basis for some recommendations for further research.

## **7. Recommendations for further research**

Based on the findings and limitations of this study, some recommendations for further research might be posited.

Firstly, students' difficulties in identifying different grammatical phrases should be embraced in another study. The knowledge of their difficulties in perceiving different kinds of phrases concerning phrase-head location may help design appropriate training lessons.

On the same account, different text types and their effects on phrase reading should be integrated into the research as one variable. The present study only focused on the type of intensive reading. So, it is necessary to study phrase reading on many different text types to know different impacts of those kinds of texts on reading rate.

Additionally, video recorders should be used to examine eye movements in reading. This tool can help researcher observe how and how quick the eyes move across the printed page. The conducted study could not afford to do so due to the limited time and financial budget. However, those who are interested, especially the ones from high-tech equipped institutes may consider using a camcorder in redoing the research into the same or related topic.

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## Reference

1. Allen, D. (2004). *Oxford Placement Test 1*. Oxford: Oxford University Press.
2. Allington, R. L. (1983). Fluency: The neglected reading goal in reading instruction. *The Reading Teacher*, 36, 556-561.
3. Allington, R. L. (2006). Fluency: Still waiting after all these years. In S. J. Samuels & A. E. Farstrup (Eds.), *What research has to say about fluency instruction*. (94–105). Newark, DE: International Reading Association.
4. Blevins, W. (2005). The importance of reading fluency and the English language learner. *The Language Teacher*, 29, 13–16.
5. Carrell, P.L. & W. Grabe (2002). "Reading". In N. Schmitt (ed), *An introduction to applied linguistics*. London.
6. Casteel, C. A. (1990). Effects of chunked text material on reading comprehension of high and low ability readers. *Reading Improvements*, 27, 269-275.
7. Cohen, A. D. (1994). *Assessing language ability in the classroom*. (2nd Edition). Boston: Newbury House/Heinle & Heinle.
8. EFL Division of UCLES. (2003). *Cambridge Preliminary English Test 2*. Cambridge University Press.
9. EFL Division of UCLES. (2003). *Cambridge Preliminary English Test 6*. Cambridge University Press.
10. EFL Division of UCLES. (2008). *Preliminary English Test handbook*. Cambridge: UCLES.
11. Elementary literacy (2010). Teach For America. Retrieved from:
12. [http://www.teachingasleadership.org/sites/Readings/EL\\_2010\\_final.pdf](http://www.teachingasleadership.org/sites/Readings/EL_2010_final.pdf)
13. Fuchs, L. S., Fuchs, D., Hosp, M. K., & Jenkins, J. R. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading*, 5, 239–256.
14. Grabe, W. (2004). Research on teaching reading. *Annual Review of Applied Linguistics*, 24,44-69.
15. Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge: Cambridge University Press.
16. Hartmann, P. & Kirn, E. (1992). *Interactions 2 - Reading Student Book*. (Second Edition). McGraw-Hill Companies.
17. Hartmann, P. & Kirn, E. (2007). *Interactions 2 - Reading Student Book*. (Silver Edition). McGraw-Hill Companies.
18. Hartmann, P. & Kirn, E. (2011). *Interactions 2 - Reading*. (Online learning center – 4<sup>th</sup> Edition). McGraw-Hill. From:
19. [http://highered.mcgraw-hill.com/sites/0072331054/student\\_view0/](http://highered.mcgraw-hill.com/sites/0072331054/student_view0/)
20. Iwahori, Y. (2008). Developing reading fluency: A study of extensive reading in EFL. *Reading in a Foreign Language*, 20, 70-91.
21. Klauda, S.L., & Guthrie, J.T. (2008). Relationships of three components of reading fluency to reading comprehension. *Journal of Educational Psychology*, 100, 310-321.
22. Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology*, 95, 3–21. Newark, DE: International Reading Association.
23. LaBerge, D. and Samuels, S.J. (1974) Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6, 293-323.
24. LeVasseur V. M., Macaruso, P., Palumbo, L. C., & Shankweiler, D. (2006). Syntactically cued text facilitates oral reading fluency in developing readers. *Applied Psycholinguistics*, 27, 423–445
25. Masterson, J. J., & Apel, K. (2006). Effect of modality on spelling words varying in linguistic demands. *Developmental Neuropsychology*, 29, 261–277.
26. National Institute of Child Health and Human Development (NICHD). (2000). Report of the National Reading Panel. *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.
27. Nichols, W., Rupley, W., & Rasinski, T. (2009). Fluency in learning to read for meaning: Going beyond repeated readings. *Literacy Research and Instruction*, 48, 1-13 Publication: *Journal Articles, Refereed*.

28. Nunan, D. (2003) *Practical English Language Teaching (ed.)*. Boston: McGraw-Hill.Education.
29. O'Shea, L. J., & Sindelar, P. T. (1983). The effects of segmenting written discourse on the reading comprehension of low- and high-performance readers. *Reading Research Quarterly*, 18, 458–465.
30. Penner-Wilger, M. (2008). *Reading fluency: A bridge from decoding to comprehension*. AutoSkill International, Inc.
31. Rasinski, T. V. (2003). *The fluent reader: Oral reading strategies for building word recognition, fluency, and comprehension*. New York: Scholastic Professional Books.
32. Rasinski, T. V. (2004). *Assessing reading fluency*. Honolulu, HI: Pacific Resources for Education and Learning.
33. Rasinski, T. V., Padak, N. D., McKeon, C. A., Wilfong, L. G., Friedauer, J. A., & Heim, P. (2005). Is reading fluency a key for successful high school reading? *Journal of Adolescent & Adult Literacy*, 49, 22-27.
34. Rayner, K. (1986). Eye movements and the perceptual span in beginning and skilled readers. *Journal of Experimental Child Psychology*, 41, 211-236.
35. Reutzell, D. R. (2006). "Hey, teacher, when you say 'fluency,' what do you mean?": Developing fluency in elementary classrooms. In T. V. Rasinski, C. Blachowicz, & K. Lems (Eds.), *Fluency instruction: Research-based best practices* (62–85). New York: Guilford.
36. Schmitt, N. (2002) *An introduction to Applied Linguistics (ed.)*. London: Arnold.
37. Smith, F (1978). *Understanding reading: A psycholinguistic analysis of reading and learning to read*. New York: Holt, Rinehart, and Winston. 206 pages. 0030417651. (5th edition published in 1994.)
38. Snow, C. , Sweet, A.P., Alvermann, D.E., Kamil, M.L., & Strickland, D.S. (2002). Formulating a research agenda about reading for understanding. In A.M. Roller (Ed.), *Comprehensive Reading Instruction Across the Grade Levels. A collection of papers from the Reading Research 2001 Conference* (88–110). Newark, DE: International Reading Association.
39. Sutz, R (2009). *Speed Reading For Dummies*. Wiley Publishing, Inc.
40. Talada, J. A. (2007). The relationship between oral reading fluency and comprehension. Liberty University (Doctor of Education).
41. Yamashita, J. & Ichikawa, S. (2010). Examining reading fluency in a foreign language: effects of text segmentation on L2 readers. *Reading in a Foreign Language*, 22, 263-283.
42. Wise, J. C., Sevcik, R. A., Morris, R. D., Lovett, M. W., Wolf, M., Kuhn, M., Meisinger, B., and Schwanenflugel, P. (2010). The relationship between different measures of oral reading fluency and reading comprehension in second-grade students who evidence different oral reading fluency difficulties. *Language, Speech, and Hearing Services in Schools*, 41, 340-348.