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**EFFECTS OF TIMED READING ON EFL LEARNERS' READING
SPEED AND COMPREHENSION LEVEL**

MASTER'S THESIS

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**SÜRELİ OKUMANIN, İNGİLİZCEYİ YABANCI DİL OLARAK
ÖĞRENEREN ÖĞRENCİLERDE OKUMA HIZI VE OKUDUĞUNU
ANLAMA SEVİYESİ ÜZERİNDEKİ ETKİLERİ
YÜKSEK LİSANS TEZİ**

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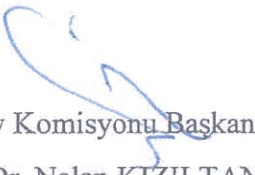



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SÜRELİ OKUMANIN, İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRENENLERİN OKUMA HIZINA VE OKUDUĞUNU ANLAMA DÜZEYİNE ETKİLERİ

Dilde belirli bir yeterlilik düzeyine ulaşabilmek için geliştirilmesi zorunlu olan okuma becerisi, dil öğrenimi ve öğretimi alanında her zaman en önemli konulardan biri olmuştur. Okuma sürecine dahil olan alt becerileri ve süreçleri belirlemek için pek çok çalışma yapılmış ve okuma becerilerini geliştirmeye yönelik birtakım kuramlar öne sürülmüştür. Akıcı okuma detaylı bir şekilde tartışılmış ve iyi okuyucu olabilmek için akıcı okumanın çok önemli olduğuna kanaat getirilmiştir. Ana dilde akıcı okumaya yapılan vurgu, yabancı dilde okuma konusunda sorular doğurmuştur. Ancak ana dilde okuma üzerine pek çok çalışma yapılmış olmasına rağmen yabancı dilde akıcı okuma üzerine çalışmalar oldukça azdır. Bunun en büyük sebebi okumanın karmaşık bir süreç olmasıdır. Bu çalışmanın amacı, süreli okuma etkinliklerinin İngilizceyi yabancı dil olarak öğrenen Türk öğrencilerin okuma hızı ve okuduğunu anlama düzeylerine etkisini araştırmaktır. 74 öğrenci çalışmada yer almıştır ancak yapılan ön analizlerde 10 katılımcının değerleri analize aykırı bulunduğu için analizlerden çıkartılmıştır. Katılımcılar deney ve kontrol grubu olmak üzere ikiye ayrılmışlardır. Deney grubu 5 hafta boyunca süreli okuma etkinliği yapmıştır. Ön test, süreli okuma etkinliğine başlamadan önceki hafta, son test ise süreli okuma etkinlikleri bittikten sonraki hafta uygulanmıştır. Çalışmanın sonucunda süreli okuma etkinliklerinin öğrencilerin okuma hızı ve

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Anahtar szckler: Akıcı okuma, ana dilde okuma, okuduđunu anlama, okuma hızı, sreli okuma, yabancı dilde okuma.



ABSTRACT

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EFFECTS OF TIMED READING ON EFL LEARNERS' READING SPEED AND COMPREHENSION LEVEL

Reading has always been one of the most substantial topics in learning and teaching languages, as it is crucial to improve reading to become proficient in a language. A great number of studies have been carried out to clarify subskills and processes that are involved in reading process; several theories about improving reading skills have been put forward. Reading fluency has been discussed in detail and claimed to be crucial to become proficient readers. The highlight on reading fluency in native language (L1) has born questions about reading in a foreign language (FL). However, despite abundance of studies related to L1 reading, there is an obvious scarcity of studies on FL reading fluency mostly because of the complexity of reading process itself. The purpose of this study is to investigate the efficacy of timed reading practices on reading speed and reading comprehension levels of Turkish learners of English as a foreign language. 74 students participated in the study. However, 10 participants were detected as outliers via preliminary analysis, so they were left out from the analyses. The participants were divided into two groups as experimental and control groups. The experimental group received timed reading intervention for five weeks. A pre-test was applied a week before the learners

started timed reading intervention and a post-test was applied one week after timed reading intervention period. The results revealed that timed reading intervention benefitted learners in terms of reading speed and reading comprehension significantly. Several implications for teaching reading in a foreign language were deduced depending on the findings of the research and the literature.

Keywords: Reading comprehension, reading fluency, reading in a foreign language, reading in the mother tongue, reading speed, timed reading.



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CHAPTER 1

Introduction

1.1. Introduction

Reading process has always been one of the most significant and debatable topics in the area of learning and teaching languages. Both in mother tongue (L1) and in a foreign language (L2) reading processes, the association of these processes, variables effecting reading and the qualities of good and poor readers have been investigated by a great number of researchers. Researchers in the area of language education have attributed different reading theories, processes, conditions and definitions to the literature for decades and developments in the area of reading in L1, and they have raised questions about reading in L2 and a variety of theories have been put forward to reveal whether L1 reading processes are related to L2 reading processes.

To begin with, two main theories have been introduced related to the relationship between L1 and L2 reading. Cummins's (1979) Linguistic Interdependence Hypothesis claims that L1 knowledge and L2 knowledge are interdependent and L1 abilities can be transferred to L2 learning processes. Moving from this theory, it can be concluded that L1 reading abilities can be transferred to L2 reading process. On the other hand, Linguistic Treshold Hypothesis (previously known as short circuit hypothesis) (Clarke, 1979) suggests that L1 reading abilities can only be transferred to L2 reading when learners reach to a certain level of proficiency in L2. Before reaching to the linguistic treshold, transfer of reading abilities from L1 to L2 cannot be expected. Even though these two hypotheses emphasise a positive transfer between languages, the second hypothesis claims that for this kind of transfer, L2 proficiency is necessary up to a certain point. According to these hypotheses, L1 reading abilities that can be transferred to reading abilities in the target language include reading speed and reading comprehension skills which are covered under the term reading fluency.

One of the most recent and substantial questions in the area of language teaching is reading fluency in L2. Even though the importance of reading fluency both in L1 and L2 is found to be important, fluency in L2, how to improve fluency in L2, and how it can be improved are still being researched. It is possible to find a great number of sources related to L1 fluency and its importance, however fluency in L2 reading is still in need of much more research (Anderson 1999; Grabe & Stoller, 2011).

Despite the fact that there are not as many studies related to L2 reading fluency as in the area of L1 reading fluency, a number of activities, including timed reading, have been designed to improve reading fluency level. A number of studies have been carried out to see the effectiveness of timed reading in different learning contexts, such as L1, English as a foreign language (EFL) and English as a second language (ESL) learning environments and most studies resulted with satisfactory outcomes (Atkins, 2010; Chung & Nation, 2006; Crawford, 2008). The claim that timed reading practices help learners to improve their reading speed and comprehension levels has been supported by the results of several studies. However how time, as a component of timed reading practices, effects this improvement in speed and comprehension has still been debatable.

Stein and Solomons (1969) claim that people can do a great number of actions automatically which means the action has been done so many times that it does not necessitate conscious attention to execute the action. Automatic actions are not done consciously but automatically. According to Samuels (1976), a number of reading incidents can be explained by automaticity one of which is reading without comprehension. Samuels (1976) claims that even though readers read everything on the text fluently, they might not remember what the text is about which means the decoding is done automatically without paying attention to meaning. Considering Samuels's (1976) claim, it can be presumed that when a text is read automatically, comprehension may become lower when attention is not involved in reading

process and reading is done inattentively and despite the importance of automaticity in the process of fluent reading, attention should be given on the meaning to comprehend the text.

According to Langer (1989), mindfulness is the state of alert and awareness of the surroundings and actions that are done. Actions that are mindfully done are accomplished carefully and consciously, not automatically. Even though automaticity is needed in the process of decoding, readers should be mindful for the process of comprehension (Hook & Jones, 2002). Hook and Jones (2002) mention in their study that “even mild difficulties in word identification can pull attention away from the underlying meaning, reduce the speed of reading, and create the need to reread selections to grasp the meaning.” (Hook & Jones, 2002, p. 9). The results of a study show that mild time limitation leads to mindful reading and consequently better comprehension is achieved (Walczyk, Kelly, Meche & Braud, 1999). Considering the significant results of the studies designed to find out the effects of timed reading on reading fluency in L2, it can be said that time limitation triggers learners’ attention more, help them focus better, and lead them to become good readers.

All in all, the importance of reading fluency to become good readers has been mentioned by a great number of researchers in the literature of language teaching. Notwithstanding the need to achieve success in fluency to become proficient in reading, not much research has been conducted on the efficacy of the practices focusing on improving reading speed and comprehension that are substantial components of fluency. Considering the scarcity of the studies on the efficacy of fluency based reading instructions in teaching reading in L2, effects of these practices in L2 reading should be investigated and results should be contributed to the literature to improve L2 reading lesson designs.

1.2. Statement of the Problem

Being fluent has been reported to be an obligatory condition for being a good reader by National Reading Panel (National Reading Panel, 2000). It has been pointed out that reading

too slowly is a consequence of poor fluency and this leads to low comprehension. This statement shows that speed and comprehension are two of the main elements of reading fluency. Becoming a fluent reader in L1 is not as hard as L2 because learners are surrounded by authentic reading materials in their native language as they start reading (Grabe, 2009). This makes fluency unavoidable to a certain level. However, L2 learners learn a new language in classroom environment and should be instructed to read faster along with a better comprehension during reading lessons. Taking the importance of fluency in reading into consideration and the results of the studies on reading fluency, improving fluency should be one of the main goals of an L2 reading lesson.

When the curricula of universities in Turkey are considered, Kirkgoz (2007) mentions that “the English curriculum aims at promoting learners’ knowledge of general English and equipping them with the necessary skills to read and understand English publications in their subject area.” (Kirkgoz, 2007, p.219). The researcher of the current study has been working as an EFL teacher for 6 years in total and as a lecturer in the department of foreign languages in a university, which is also chosen as the setting of the study, for the last 2 years. The skills are taught separately as reading, writing, listening and speaking, and grammar. Learners have 5 hours of lessons for each level every week which means that every learner receive 5 hours of reading lessons every week. To the researcher’s opinion, even though raising fluent L2 readers is one of the goals of reading lessons, fluency based practices are not included in the lessons. Reading lessons focus more on improving vocabulary and reading strategies.

To the researcher’s own experience, the situation has not been different in other universities or in any other private language schools. The researcher had personal communication with several co-workers and as a result, it has been revealed that they share the same opinion about reading lessons; fluency is a must, however, it is generally neglected. Not much emphasis is put on improving reading fluency even though reaching to a certain

level of fluency is one of the goals of L2 lessons and learners are expected to become fluent readers at the end of their L2 education. There are no activities focusing on improving reading speed and comprehension such as timed readings included in the scope of reading lessons in foreign language schools. Designing lessons especially to improve reading fluency in L2 may make a difference and meet the expectations.

There may be several reasons lying behind the fact that educators do not pay enough attention to reading for fluency lessons such as intensive lesson plans, having too many things to teach in a limited amount of time, crowded classroom environments, or because of the inadequate number of studies on this subject. To be more specific, the researcher of this study states that even though the learners have at least nine years of English education before they start university, they are still poor readers in L2. After nine years of English education, learners start university either on elementary or pre-intermediate level and for one year, they only have L2 lessons. As the language of education is 100% English in the setting of the study, English is obligatory for the learners and if they do not reach to a certain level of proficiency, they are sent to another university whose language of education is L1 (Turkish). As the lessons are too intense, focusing only on fluency is not included in the curriculum. These facts show that there should be some improvements in the curriculum and fluency studies should be included in the lessons.

As emphasized above, the importance of reading fluency and fluency studies in L2 have been neglected in foreign language departments in Turkey to the researcher's experience. The gap between expectations and application can be filled with giving place to fluency activities in reading lessons. By taking the need for fluency activities in L2 reading lessons into account, this study will explore the effects of timed reading on learners' speed and comprehension.

1.3. Purpose of the Study

The purpose of this study is to find out the efficacy of timed reading intervention in terms of reading speed and comprehension skills on L2 learners. Addressed research questions will be answered via statistical analysis and the answers will reveal whether timed reading intervention help learners improve their reading speed and comprehension skills and lead them to become proficient readers in L2.

1.4. Research Questions

The aim of this study is to investigate the effects of timed reading activities on L2 learners' reading speed and comprehension levels. Considering the aim of the study, the effects of timed reading will be tested and the following research questions will be addressed.

1. Do EFL learners who receive timed reading intervention improve their reading speed during the study?
2. How many words per minute do EFL learners who receive timed reading intervention increase their speed during the study?
3. Do EFL learners who receive timed reading intervention improve their comprehension skills during the study?
4. To what extent do EFL learners who receive timed reading intervention improve their comprehension skills during the study?
5. Do EFL learners who do not receive timed reading intervention improve their reading speed during the study?
6. To what extent do EFL learners who do not receive timed reading intervention improve their reading speed during the study?
7. Do EFL learners who do not receive a timed reading intervention improve their comprehension skills during the study?

8. To what extent do EFL learners who do not receive timed reading intervention improve their comprehension skills during the study?
9. Are there any significant differences between the experimental group and the control group in terms of reading speed?
10. Are there any significant differences between the experimental group and the control group in terms of reading comprehension?

1.5. Significance of the Study

This study is important for several reasons. First of all, there is a need for more studies in the area of L2 reading fluency. The results of this study will contribute the effects of timed reading activities on L2 learners reading fluency to the area and it will shed light onto the debates on the effectiveness of timed reading activities and the results will show how much emphasis should be put on timed reading activities in teaching reading in L2 environments. Additionally, the limitations and variables of timed reading activities will be revealed.

Secondly, even though there are studies investigating the effects of timed reading activities abroad, there are no such studies done with Turkish learners of English. This study will be the first one to investigate the effects of timed readings on Turkish learners of EFL. Besides, as different activities may have different results with different languages, this study will shed light on the effects of timed reading activities specifically on Turkish EFL learners.

Thirdly, as mentioned earlier, even though fluency is one of the goals of reading lessons, activities to improve reading fluency are not included in curricula in Turkey. For this reason, the results are important, as they will show the effects of timed reading on the fluency of Turkish L2 learners, shed light on how it can be integrated into the lessons, the improvements that can be done in L2 reading lesson designs in Turkey and provide a basis for further studies.

Finally, timing of this study is especially crucial for the researcher. For the coming academic year, Department of Foreign Languages in the university where the researcher has been working as a lecturer is going to change their education system and will start a skill based English teaching program for the first time. The results of this study will be substantial for the design of reading lessons of the new system that is being planned. If the study proves the effectiveness of timed reading activities on reading fluency, these kinds of fluency based activities will be included in the curriculum.

To sum up, the scope of the current study might reveal the role of timed reading practices in improving reading speed and reading comprehension and presenting knowledge for further studies in both local and global EFL teaching context. Designing a study to investigate the effects of timed reading on Turkish learners of English may prove the efficacy of timed reading practices in a different environment and contribute to the literature a diverse perspective on fluency based practices.

1.6. Limitations of the Study

The limitations of the study will be discussed and a number of suggestions for the problems will be put forward in the following section.

Firstly, data collection procedure was limited to 7 weeks. The reason for the study to be carried out in 7 weeks is the system of the university that was chosen as the setting of the study. It was only possible to conduct the study during the academic year and the system lets learners to have 7 weeks of education for each level of English. In the system of the setting of this research, a final test is applied to the learners in every 8th week and the learners either continue with the following level or repeat the level they have already had. This process entails learners to be mixed and assigned to a different class randomly with respect to their results. On account of the classes and levels of learners changing in every 7 weeks, the researcher had 7 weeks to gather data and for the intervention. The first and the final weeks

were used to apply the pre-test and the post-test (See Appendixes). This left the researcher 5 weeks to give timed reading instruction to the learners. Longer application of timed reading would help gathering more remarkable results.

Secondly, the number of participants were limited to 74. Besides, in the analysis procedure, 10 participants had to be left out as they were detected as outliers. So, data belonging to 64 learners in total were analysed. Additionally, all the participants were from the same university. Even though the results will be directly related to Turkish learners of English at university level, data gathered from more learners from various universities would be more reliable from the point of generalizing the results to Turkey or simply to L2 learners.

Finally, the participants could only read 15 texts in the limited amount of time. Increasing the number of texts would have influenced the results of the study. However, timed reading intervention was not integrated in the lesson plan, for this reason it was not possible to apply more than three texts a week or more often than once a week.

1.7. Definitions of Terms

Timed reading: Reading texts that are equal in terms of length and lexical difficulty regularly for defined weeks or months. These texts are read against the clock and readers answer comprehension questions without referring back to the text after reading. The main purpose of timed reading is to increase fluency, more specifically speed and comprehension (Champeau de López, 1993).

Reading Fluency: Reading fluency has been defined by various scholars. For example; Pikulski and Chard (2005) define reading fluency in the following statement; “Reading fluency refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text.” (Pikulski & Chard, 2005, p.510). On the other hand, Samuels (2006) claim that fluency is the automatization of decoding, and the ability to decode and comprehend the text at the same time. To Rasinski and Samuels (2011), fluency is a

multidimensional process in which readers spend few time on decoding via automaticity, which leaves more room for cognitive sources for comprehension of meaning. There is a misunderstanding of fluency as solely reading fast. However, reading fast without comprehension is just decoding and fluent readers are expected to read fast and construct the meaning of text at the same time (Rasinski & Samuels, 2011).

Reading Comprehension: A constructive process in which meaning of written materials is constructed via readers who employ multiple factors (Duke & Carlisle, 2011). Comprehension process necessitates integration of "...skills, understandings, and processes across word identification..., whole-text printing processing..., and written language comprehension (which includes knowledge of written language text structures and knowledge of the world)." (Erickson, 2003, p.6-7). Comprehending is not only decoding and recognizing words but it is also a process that requires readers to remember information given in the text, scan for details, seize cues given in the text and make connections with their background knowledge to have a true understanding of any texts (Clarke, Truelove, Hulme & Snowling, 2014). Namely, comprehension necessitates thinking during reading process (Mikulecky & Jeffries, 2007). A fluent reader reads in an effortless, flowing manner and he is not easily distracted.

L2: L2 is an umbrella term that covers both a second language (SL) and a foreign language (FL). It is possible to find a great number of researchers using L2 and referring to both SL and FL. Timpe-Laughlin (2016), Sert (2015) and Storch (2013) are only few examples for researchers who refer to both SL and FL under the term L2 in their works. Cook (2002), furthermore, describes L2 learners as anyone who is learning a language other than his/her native language as a school subject without the need for immediate use. Cook (2002) gives "...children learning English in China" (Cook, 2002, p.3) as an example which is the same situation in Turkey. It can be clearly seen that L2 can refer to both SL and FL. However, in the present study, L2 refers to only FL.

1.8. Summary

As an introduction to the study, this chapter introduces background information to clarify the base of the study, the statement of the problem, purpose of the study, and the research questions to be answered via this study. Also, the significance of the study is presented together with the limitations of the study.



CHAPTER 2

Literature Review

It is aimed to review major studies on reading, reading fluency in L1 and L2, reading speed, reading comprehension, and timed reading in this chapter. Some reading theories will be introduced and different studies with the basis of different theories will be discussed. This chapter puts emphasis especially on the importance of reading fluency, the scope of reading fluency, properties of good and poor readers and the studies on the effects of timed reading. By doing so, the basis of the present study will have been demonstrated.

2.1. What is Reading?

Even with a simple review of the literature of language education, it is possible to find a variety of reading definitions. One of the most basic explanations of reading is defined as “the process of extracting meaning from written or printed language” (McArthur, 1992, p.847). From the simplest definition to the most complex, reading is defined as a process.

In 1969, Ryan and Semmel defined reading as a constructive and active language process in which readers utilize their cognitive and linguistic knowledge. As Adams and Collins (1979) advocate, what is meant by reading is not only decoding ability, but also being able to extract implicit and explicit meaning from written materials. During the process of decoding and comprehension, top-down and bottom-up processes work together (Adams & Collins, 1979; Rumelhart, 1980). Spiro (1980) explains that top-down process can be related to knowledge and how readers derive meaning from the text using their prior world knowledge while bottom-up process is related to text itself. Carrell and Eisterhold (1983) clarify the issue of deriving meaning from the text via schema theory that necessitates top-down and bottom-up processes. According to Carrell and Eisterhold (1983), data in a text first attract bottom-up processes. When input is successfully processed, readers come to a point where top-down process is involved to make inferences, predictions and have a higher level of comprehension

of the text. Reading is clearly not just a matter of solving the written piece of language, but getting the meaning of the utterances, the idea, and deriving meaning from any written materials via employing cognitive and linguistic knowledge.

Leipzig (2001) defines reading as a complex process that draws upon many skills that are needed to be developed at the same time. These complex skills are identifying words, solving problems that can keep us, readers, off deriving meaning from texts and keeping ourselves motivated, strategic and mindful of the material we read. As the aim of reading is to get the meaning of the text, all the needed skills should work together and consistently.

Olson (2003) agrees with the idea that reading is a complex act of critical thinking. Olson (2003) further claims that powerful cognitive strategies fundamental to the construction of meaning underlie these mental activities utilized during reading process. Cognitive strategies are simply the strategies that are used to complete a task or solve a problem. During reading process, there are several cognitive strategies that can be applied and learnt and the use of mind, cognition, is substantial to be good readers.

Anderson (2003) claims that the combination of the text, the reader, fluency, and strategies is the definition of reading. Readers' background knowledge plays a vital role for readers to create the meaning from the text. It is easier to comprehend meaning when materials are familiar to readers. What Anderson (2003) means by this familiarity is explained in Adams and Collins's (1979) study as schema theory. When readers are able to relate the information given in the text to their world knowledge, interpreting meaning becomes easier. Considering the importance of prior knowledge to grasp meaning from written materials, it can be concluded that Anderson's (2003) reading definition includes not only text and fluency, but also the reader himself.

Grabe and Stoller (2011) find definitions of reading insufficient and indicate that it is not possible to simplify such a complex and extensive process to be defined in one or two

sentences. One of the reasons why they find reading descriptions inadequate is that they do not involve the definition of the nature of fluent reading abilities, processes, and knowledge that work together during reading. Even though research has been done on the nature of fluent reading, a simple definition cannot explain the reasons, mechanisms, abilities and all the necessary processes behind reading and also reading fluency. For this reason, giving an exact definition of reading and fluency with a simple sentence is just inadequate as Grabe and Stoller (2011) state.

Almost all definitions of reading point out that the aim of reading is to derive meaning from any written materials. During the process of deriving meaning from written materials, background knowledge, cognition, motivation, and knowledge of language play important roles. Fluency is substantial to achieve success in reading. Being such an important and complex part of languages makes reading an indispensable part of language teaching and learning. It has been proven by research that reading fluency is one of the constituents of a proficient reader (National Reading Panel, 2010).

2.2. Reading in L1 and L2

There are several studies done on the components of reading in L1 and L2. Singhal (1998) states that reading in mother tongue and in a foreign language have both similarities, as the two employ cognitive and linguistic processes, and differences, such as familiarity with the content and proficiency level. Lower level word processes, higher level word processes, working memory, metacognitive skills, and linguistic knowledge are some of the basic components of reading that are believed to take part in the process of reading. However, to a number of researchers, not all of them are applied similarly in both languages. Even though reading might be considered as several processes employed similarly in any languages, L2 reading might be more demanding because of experiences, beliefs, language proficiency and cultural literacy (Wurr, 2003).

L1 and L2 proficiency levels have been taken into consideration to explain L2 reading proficiency. Linguistic Interdependence Hypothesis, developed by Cummins (1979), explains the possibility of ability transfers from L1 to L2. To Cummins (1979) the abilities of L2 are positively transferred to L2 thus acquiring L2 is expedited. Considering the hypothesis, it can be conjectured that L1 reading abilities are transferred to L2 reading and ease the process of L2 reading. Correspondingly, Linguistic Threshold Hypothesis (Clarke, 1979) also suggests ability transfer from L1 to L2, however, in order for a successful transfer, learners need to achieve a certain level of L2 proficiency which is also called “language ceiling” by Clarke (1979) and “linguistic threshold” by Cummins (1979). A considerable number of studies have been carried out to find out the validity of these hypotheses and surely, both of them have been claimed to have a certain level of validity. However, as reading is a complex inner process that includes several other processes, it is hard to get conclusive deductions even in L1 reading.

Lower level and higher level processes are widely considered crucial for reading fluency. LaBerge and Samuels’s (1974) theory of Automatic Information Processing in Reading suggests that reading fluency is only achieved via completion of series of processes including visual, phonological, episodic, and semantic memory systems. This theory explains that lower-level reading skills should be mastered to achieve higher level reading comprehension. When word recognition becomes an automatic action, then readers can use their limited processing resources, working memory, more on comprehension processes. Even though LaBerge and Samuels (1974) focus on oral reading, considering the fact that fluency matters not only for oral but also for silent reading, it can be said that mastering lower level processes is substantial to achieve higher level reading skills.

L2 learners especially need enhanced lower-level processing skills because of the reason that struggling with lower level skills may turn reading into a slow and strenuous process

(Taguchi, Gorsuch & Sasamoto, 2006; Anderson, 1999) which is defined as “the vicious circle of weak reader” by Nuttall (Nuttall, 1996, p.127). When reading becomes tiring and demanding, learners’ motivation to read in L2 for any purposes can be undermined as nobody wants to dive in such a grueling process readily.

Moreover, falling into this vicious circle may prevent learners from achieving better proficiency levels in the target language (Ahmed, 2016). Ahmed (2016) claims that improving reading skill is an obligation to master English with the purpose of both learning English and being successful in environments that require reading in English and via advancements in reading, learners improve in all other skills in the target language. McDonough and Shaw (1993) also state reading as one of the most important skills and even the most important skill in cases in which learners have no chance of speaking in English but have to read materials in the target language. Considering the crucial role of reading for L2 learners, it is easy to conclude that reading ability should be developed to reach a certain level of proficiency in L2.

Regarding reading comprehension in L2, it is possible to refer to a number of strategies and models. Barnett (1989) categorizes reading models under three headings as bottom-up models, top-down models and interactive models. Bottom-up models refer to deriving meaning from the text directly. To get meaning from written materials, readers first analyse written data and then move to higher processes. Giving meaning to words and sentences is the basis of bottom-up models. On the other hand, in top down models, readers employ higher processes first and these models prioritize readers’ world knowledge in the process of comprehension. Readers construct meaning from texts by using their general knowledge and make predictions about texts via top-down models. As it can be inferred from the explanations of top-down and bottom-up reading strategies, both models refer to a single source, either the text itself, or readers’ world knowledge.

When it comes to interactive reading models, the focus changes from a sole source to the interplay between readers and written materials. The information that texts carry and readers' knowledge work together in interactive models. An (2013) states three dimensions of this interplay as "interaction between bottom-up and top-down processing, that between lower-level and high-level skills, and between reader's background knowledge and the background knowledge presupposed in the text." (An, 2013, p. 134). Even though interactive models can widely explain the strategies employed in L2 reading, Stanovich (1980) added a new feature to interactive reading strategies and contributed interactive-compensatory model to the literature. The compensatory feature of this model suggests that when there is a weakness in a processing stage, strong processes can compensate for this weakness. To the model, top-down and bottom-up processes are both significant in comprehension process and they compensate for each other's weaknesses. Samuels and Kamil (1984) refer to Stanovich's (1980) interactive compensatory model as a "unique contribution to reading models" (Samuels & Kamil, 1984, p. 213) from the point of offering a theoretical explanation to a number of abnormalities in several studies. All these models demonstrate how elaborate and complex reading process is and achieving a certain level of reading proficiency in L2 necessitates success in a number of sub-processes.

Even though it is possible to define a number of reading models, it is not easy to find out which models engage in reading. Stanovich (1980) suggests that both good and poor readers prefer top-down strategies rather than bottom-up strategies. However, the reason behind this preference depends on the proficiency level as good readers want to comprehend meaning better while poor readers intend to help word recognition. A number of studies have been carried out to reveal the reading strategy preference of L2 learners and the results demonstrate a number of different strategies have been put into practice in the process of reading both in L1 and L2.

Yildiz-Genc (2009) has designed a study to find out which reading models Turkish learners of EFL employ during reading in the English as L2 and in their mother tongue, Turkish. The results of the study show that learners employ more top-down strategies both in L1 and L2. Moreover, employed bottom-up strategies are different considering the language of the text they read. When the study's results are taken into consideration, it has been hypothesized that learners employ more top-down strategies in L2 in order not to struggle with the language difficulties. The results of Yildiz-Genc's (2009) study suggest that L2 learners may prefer top-down strategies to avoid from analyzing the text itself and dealing with problems that might be risen from their proficiency levels in the target language.

Another study was carried out to investigate the approaches of adult readers to L1 and L2 reading by Davis and Bistodeau in 1993. English learners of French and French learners of English were participated in the study. Both groups were given texts in their native language and in the target language. The results show that English learners of French employ significantly more top-down strategies while the preference changes to bottom-up strategies for reading in L2. Additionally, the participants were observed to use interactive-compensatory model to understand the meanings of unfamiliar words. On the other hand, French learners of English show no specific inclination to any of the strategies and applied to both bottom-up and top-down strategies equally. Only linguistically more proficient French learners of English employed more top-down strategies in both languages.

The results of both studies reveal that neither deriving conclusive inferences related to reading strategies that are mostly used in reading process nor thinking that only one strategy is employed in reading process is plausible. Instead, as it can be concluded from the studies mentioned previously, learners use multiple strategies in L1 and L2 reading to construct meaning from the text and the usage of these strategies may differ from reader to reader.

Together with all the other components, reading fluency affects the level of comprehension. Reading too slowly may distract readers while reading too fast may cause to lose the meaning of the text (Armagan, 2013). Although reading rate changes individually, several studies, which are mentioned in the following parts of the current study, have been carried out to investigate the effects of timed reading and to find out the relationship between reading speed and comprehension.

All in all, even though reading in L1 and L2 share a number of similar processes, the differences are also suggested on a theoretical basis and supported with empirical findings. Since the strategies that are applied by readers and processes that are employed during L1 and L2 reading processes may differ, embracing reading in L1 and L2 as two different phenomena sharing a number of similarities would be more appropriate.

2.3. The Importance of Fluency in Reading

The focus on reading fluency goes back to 1970s. At first, researchers found out that automaticity in decoding makes reading more efficient (LaBerge & Samuels, 1974). This idea has been a basis for several studies and researchers started to question the relationship between fluency, accuracy, encoding and comprehension. With the verbal efficiency theory (Perfetti, 1985; Perfetti & Hogaboam, 1975), the notion of fluency has gained a more comprehensive meaning with the inclusion of the relationship between word recognition, reading speed and meaning production. Verbal efficiency theory suggests that as readers become faster on lower level processes, they leave more capacity of working memory for more complex higher level processes. If readers fail on lexical level, they use most of their working memory on lower level processes and this leads to poor comprehension as they have limited working memory.

Taylor and Rasinski (2011) define the subskills that are necessary to achieve fluency in silent reading as “adequate near-point vision, attention and concentration, visual/functional

proficiency, word recognition automaticity, information processing efficiency, reading vocabulary, comprehension capability, adequate silent reading rates, language experience and experiential background.” (Taylor & Rasinski, 2011, p. 117). Moreover, to Taylor (2006), silent reading rate should transcend vocalization to achieve acceptable reading rates for intermediate, secondary and college level learners. As Taylor (2006) mentions, silent reading and oral reading fluency have a number of similar properties, however, the points mentioned above are important for the former. The scope of this research only covers silent reading thus silent reading fluency is the point of intention. The reason why the focus is on silent reading in the present research is that learners have more chances to read silently both during lessons and outside the classrooms. Furthermore, it is more applicable to measure silent reading speed in classroom environments because of the limited lesson time and the number of learners being high.

As fluency is often related to speaking, it is normal to associate fluency with oral reading. However, after first stages of learning, most reading occurs silently. For this reason, if fluency is considered only as a part of oral reading, it should be ignored after a certain level of education. Yet even when learners read silently, they mention an inner voice that helps them to decode the words and read them as meaningful units. Readers use their inner voice to get meaning from written materials (Rasinski, 2012). When this fact is considered, it can be easily said that fluency is needed both in silent and oral reading (Rasinski & Samuels, 2011). Results of numerous studies support the idea that fluency is existent both in successful oral reading and silent reading comprehension (Ates, Yildirim, Can & Turkyilmaz, 2014; Turkyilmaz, Can, Yildirim & Ates, 2014)

Mikulecky (2008) suggests that it is possible for a learner to read a text orally and fluently but not comprehend it at all, and reading fluency does not mean only oral reading. Instead, fluency in silent reading is important to give learners time not for decoding and telling the

words out loud without comprehension but to give them enough time for general understanding of the ideas in any given passage. From this point of view, Mikulecky (2008) emphasizes the significance of fluency in silent reading.

Duffy (2009) explains oral or silent reading fluency as "... the ability to orally and silently read text smoothly and with appropriate phrasing and intonation." (Duffy, 2009, p.32). As mentioned, reading fluency is not only important for oral reading, but also for silent reading. Duffy (2009) claims that the aim of fluency is to make learners fluent silent readers and fluency is the link between comprehension and word recognition. Word recognition is a lower level process and without automatic word recognition, reading rate cannot be improved. Considering the necessities and processes involved in fluency, it can be concluded that gaining fluency is a must to become a good reader and it consists of related competences and processes.

Hudson, Pullen, Lane, and Torgesen (2009) agree that fluency is a multidimensional process and they define three dimensions as reading comprehension, reading fluency, and decoding fluency. The elements of decoding fluency are phonemic awareness fluency, letter sound fluency, phonogram fluency; the elements of reading fluency are orthographic knowledge, sight word vocabulary, decoding fluency, multiple cue efficiency; and the elements of reading comprehension are metacognition, knowledge, vocabulary, passage context, and social context. Automatization and general processing speed are important for fluencies and, reading fluency and reading comprehension are interrelated according to Hudson et al. (2009) model of reading fluency. The multidimensional view of reading fluency agrees with Perfetti's (1985) Verbal Efficiency theory on that readers have a limited working memory capacity to use for lower level and higher level processes and automatization helps readers to use little working memory on lower level processes and leaves more working memory for higher level processes that are necessary for comprehension. Multidimensional

theory is in parallel to the ideas that speed and comprehension are dimensions of reading fluency and it is necessary for readers to gain fluency for better comprehension.

To Alderson (2000), “fluent reading process tend to emphasize that it is rapid, purposeful, motivated, interactive, it is comprehending (readers expect to understand), it is flexible, and it develops gradually.” (Alderson, 2000, p. 14) From this definition of fluent reading process, it can be concluded that speed and comprehension are both indispensable elements of fluent reading and considering the qualities of good readers, fluency is essential for both L1 and L2 reading process.

Moving from the general definition of fluency, most research is based on oral reading instruction. However, fluency in silent reading is also crucial for comprehension. The focus on oral reading raises the question of the effects of silent reading instruction on reading comprehension and general reading achievement. In 2011, Rasinski, Samuels, Hiebert, Petscher, and Feller designed a study to answer this question. The participants were 16,143 urban school students from grade 4 to 10 and they had fluency based silent reading instruction for approximately 6 months. The results reveal that the experimental group showed significant improvement both in comprehension and in general reading achievement. Even though this study was conducted on L1 learners, there are similar studies on L2 learners with similar results. This study, together with other parallel studies, shows that fluency based reading instruction helps learners to achieve better reading comprehension and become better readers and fluency does not cover only oral reading. As it is understood from this study, improving silent reading fluency has also been significant for improving comprehension.

Even though fluency was believed to be a component of only oral reading in the past, previously mentioned research reveals that fluency is a significant constituent of not only oral but also silent reading. Based on the evidence gathered from a number of studies in the literature, improving reading fluency should be considered as one of the main goals of in-class

reading practices. With the aim of achieving this goal, practices specifically designed with the purpose of improving reading speed and comprehension should be put into practice and the results should be contributed to the literature to find out the efficiency of these practices and provide a basis for further research.

2.4. Good Readers and Poor Readers

Reading fluency is recognized as one of the substantial elements of a proficient reader both in L1 and L2. Even though there are a number of definitions including reading rate, comprehension, decoding and automatization, each definition includes reading rate as a component of proficient reading. Although the relationship between fluency and comprehension has not been clarified, it is for sure that they depend on each other. A number of studies show that high comprehension levels provide fluency (Anderson, Wilkinson, & Mason, 1991; Hoffman & Isaacs, 1991). On the other hand, several studies show that the level of comprehension is affected by fluency (Breznitz & Leikin, 2000; Reutzel & Hollingsworth, 1993).

As Rasinski (2014) claims the faster readers are, the better they comprehend. According to the report of the National Reading Panel (2000), readers can never become good readers unless they are fluent even if they are brilliant. Countless studies point to the fact that fluency should be achieved to become a good reader. Even if many of these studies focus on oral reading fluency, it has been concluded by a number of researchers that fluency is important also for silent reading. The reason why mostly oral reading is considered is that fluency brings to minds oral speech (Rasinski & Samuels, 2011). However, readers practice their reading skills not only orally. Silent reading fluency is a must to improve reading skills.

Ur (2012) describes efficient and inefficient readers from ten different points and one of these points is speed. According to Ur (2012) an efficient reader reads fairly fast as a result of automatization and does not study each word laboriously. On the other hand, an inefficient

reader reads slowly and does not have automatized recognition skills. As reading in a second language is a slow and strenuous process (Anderson, 1999; Jensen, 1986), improving fluency is crucial for L2 readers. With enhanced speed, readers can achieve better comprehension of written materials.

According to Stanovich (1980), one of the differences between good and poor readers is the automaticity component of fluency. Stanovich (1980) claims that the more automatized readers are on every level of reading, the more fluent they become. This is because of the reason that readers use their cognitive resources more on general meaning of texts than struggling to decode the text from the points of lexicology, semantics and orthography. Moreover, reading comprehension problems can be counted as a credible sign of unfluent readers (Stanovich, 1991). Accordingly, reading fluency can be defined as the automatization of decoding, and the ability to decode and comprehend the text at the same time. (Samuels, 2006).

2.5. Reading Fluency in L1 and L2

As a number of studies concluded, reading speed and comprehension can be covered by the term fluency. Reading speed is measured via words read per minute and reading comprehension is evaluated via different question types related to given texts. The expected fluency, reading speed and comprehension levels of native speakers cannot be the same with L2 learners' (Grabe, 2009) as L1 readers are supposed to be more fluent, faster and able to have a better comprehension than L2 learners. Since researchers focus more on native speakers' fluency, research on L2 reading fluency needs to be improved. Grabe (2009) points out that an L2 reader can read only as many words as one half of a native speaker of the target language. Even if comprehension level is not stated in this claim, it is clear that it cannot be expected from L2 learners to read as fast as they do in their L1.

Grabe (2009) mentions that reading in L2 is more complicated than reading in L1 even though L1 reading strategies are applied while reading in L2. L1 learners practice their language for at least 5 years before they start reading. Consequently, when they learn to read, they already know many aspects of their language. However, this is not the same when it comes to L2 readers. They start learning a whole new language together with all its aspects. Even though they try to apply to their reading strategies of L1, they struggle with lower-level decoding and this leaves them little energy to start higher level processes. With a whole new language, readers need to practice much more than they do in their native language.

Grabe (2009) also claims that, L1 reading fluency arises naturally as reading is unavoidable in a country where a person's L1 is spoken. Everywhere is filled with authentic materials to read and as people learn reading, they start reading everything around them and this brings fluency. However, during the process of L2 learning, people are not exposed to natural reading environments as such and this leaves learners no choice but struggle with their fluency in classroom environment. For these reasons, the expectation of same level fluency with their native reading levels becomes extravagant.

Lower level processes and higher level processes have to act rapidly and together to achieve a certain level of fluency and comprehension. Automaticity is crucial especially for lower level processes because word recognition, syntactic parsing and semantic proposition formation occur during this process (Grabe & Stoller, 2011; LaBerge & Samuels, 1974) and when the automaticity is gained, fluency is achieved. When this condition is fulfilled, learners become good readers. It is relatively easy for L1 readers to gain this automaticity because they are surrounded by reading materials. However, when it comes to L2 reading, it is not that easy because they should struggle to be exposed to reading materials, and also they should achieve a certain proficiency in their L2 which necessitates time and effort (Grabe & Stoller, 2011).

According to Hedgcock and Ferris (2009), many language teachers underestimate the importance of teaching reading skills such as fluency to their learners because they believe that learners have these skills in L1 and they will automatically transfer their reading abilities from L1 to L2. However, as there are numerous differences between L1 and L2 reading, reading abilities should be taught to L2 learners as they learn reading in L2 and these skills should be practiced on a regular basis. Hedgcock and Ferris (2009) assume that teachers, as adult and competent readers, underestimate the complexity of reading processes and for this reason do not provide L2 readers enough reading practices.

Hedgcock and Ferris (2009) have a number of claims related to foreign language learners. First of all, as these learners are fluent and experienced L1 readers, their capabilities of L1 reading can or will transfer to the L2 reading. This idea is in parallel with Cummins's (1979) Linguistic Interdependence Theory. Secondly, as the language they are trying to learn does not exist in their environments, they may not have a chance to read long reading passages at a time in L2. Not reading enough can push a reader into "the vicious circle of weak reader" (Nuttall, 1996, p.127) and they may never build speed and fluency to become good readers. It is important for teachers to be aware of these facts and provide learners practices to improve their reading abilities and fluency and lead them to being proficient L2 readers.

2.6. The Effect of "time" in Reading and Optimal Reading Rate

Walczyk (1995) mentions that the sources that are utilized during reading become restricted when severe pressure including severe time limitation is existent in reading environment. This restriction limits learners' capacity and lowers their performance. Walczyk et al. (1999) designed another study to find out comprehension level of learners under no, severe, and mild time limitations and the results show that learners comprehension level is the highest under mild time limitations. The researchers have pointed out that mild time limitation enhances comprehension level because it alerts mind and triggers conscious action. Time

restriction of timed reading may be effective from this point of view. As learners are forced to read in a limited amount of time and need to answer comprehension questions without the text, they pay more attention, read faster and comprehend better. These results are in parallel with the studies in the literature that focus on the effects of timed reading activities (Atkins, 2010; Atkins, 2014; Chang, 2010; Chang, 2012; Chung & Nation, 2006; Crawford, 2008).

The effect of time in timed reading on reading rate and comprehension has been questioned even if it has been proven to be effective. Grabe and Stoller (2011) mention that “Fluent reading must occur rapidly in almost any purposeful context, and the more rapidly a text is (successfully) read, the better the various processing components are likely to operate.” (Grabe & Stoller, 2011, p.11). For this reason, it is found out that a good L1 reader should be able to read any given text between 200 and 300 words per minute (Grabe & Stoller, 2011; Pressley, 2006) yet it has been found out that number of words L2 learners read per minute changes between 80 and 120 (Grabe, 2009; Nation, 2009). When it comes to foreign or second language learners’ reading speed, Nation claims that “a good careful silent reading speed is around 250 words per minute.” (Nation, 2009, p. 142-143). For skimming, this number goes up to 500 words per minute considering that there is no unknown vocabulary or grammar in the text.

As mentioned before, it is not feasible to expect the same rate in L2, however, the numbers and definitions of fluent reading make it clear that reading slowly is a feature of poor readers and fluency in both L1 and L2 reading is necessary. To achieve this fluency, not only reading rate but also comprehension should act and improve together and when the purpose and the previous applications of timed reading are considered, it can be concluded that time element in timed reading is essential.

In a study by Han (2013), the effect of time pressure on lower level processing of L2 reading comprehension and incidental vocabulary learning were tested. The results of this

study show that readers with quicker access to meanings of English words are better at comprehension in L2 reading. These readers have larger working memories which makes their comprehension better. The results also show that working memory is more active for comprehension in timed reading. These results show that time pressure activates working memory more than untimed reading and this time pressure forces learners to focus more on comprehension than on lower level processes. It can be concluded that timed reading, from this point of view, is not only improving reading rate but also helping learners to get a better comprehension of given texts.

The optimal reading rate in L2 is still a debatable topic. Even though number of words per minute in L2 is not expected to be the same as L1, as the proficiency level improves, the numbers should get closer. Carver (2000) suggests that number of words per minute, reading rate, during reading can change according to the purpose of reading. The number of words may vary from 138 words per minute to 600 words per minute among L1 college students depending on the purpose of reading (Carver, 2000). It is also suggested that the ideal number of words per minute is 200 during learning process (Carver,2000). The idea of changing numbers in parallel with purpose is also correct among L2 learners. During a reading lesson, L2 learners are instructed according to the activities. For this reason, defining a definite number is unfeasible. However, Carver (2000) also suggests that there is an optimal reading rate, reading rate, for each individual that does not change and can be measured. In consideration of this theory, timed reading activities make L2 learners read and comprehend faster and learners are expected to reach their optimal reading rates in their L2.

Japanese researchers developed a proficiency scale, Global Test of English Communication for Students (GTEC for Students) and related it with Common European Framework of Reference (CEFR) for universality and particularity. The difference between GTEC levels and CEFR levels is that GTEC levels include more detailed information about

the learners' abilities, such as reading speed. While reading speed is not included in CEFR, GTEC reading levels include reading speed and expected number of words per minute in any level. Test takers are divided into 6 proficiency level in GTEC just like in CEFR, however, some CEFR levels do not exist in GTEC. A B2 level learner in CEFR is a 5th level reader in GTEC and the number of words per minute for a 5th level reader is between 190 and 229. A B1 level learner in CEFR is level 3 and 4 in GTEC and number of words per minute is between 140-159 in level 3 and 160-189 in level 4. (Yoshitomi, Umino, & Negishi, 2006, p. 88-97). Even though we cannot get accurate numbers from CEFR related to reading speed, GTEC provides these numbers to L2 readers.

2.7. Fluency Based Reading Activities

Reading fluency has always been a crucial topic in the literature and there are countless studies on L1 reading fluency. Even though it has been pointed out that L2 reading fluency is as substantial as L1, there haven't been as many studies (Anderson 1999; Grabe & Stoller, 2011). This is because of the numerous differences between L1 and L2 reading. Even though more studies are needed on this subject, it is not easy to define all the variables and decide the effects of these variables. However, as the focus on reading fluency intensifies, the practices to obtain reading fluency are also improved. A number of these practices aim to improve reading rate together with comprehension as reading fluency not only covers reading rate but it also includes comprehension.

Mikulecky (1990) claims that L2 readers cannot achieve fluent reading because they believe that they can understand best by reading every word. Trying to read a text word by word slows readers down, lessen their comprehension and fluency levels. For this reason, Mikulecky (1990) suggests that it is better to show learners ways to improve their fluency, speed and comprehension and to relieve them during reading. Repeated reading and timed reading activities are ways to show learners that they do not need to read every word

elaborately and even when they do not spend all their energy on lower level processes, they can become good readers.

Several studies have been done to find out the effects of different reading activities on reading rate and fluency. Especially repeated reading and timed reading activities have been studied as they have been designed to increase reading rate and fluency. In repeated reading, learners read the same passage repeatedly until they reach the expected reading rate. In timed reading, learners are given a passage which is read against the clock. Reading is followed by comprehension questions and learners answer these without referring back to the texts.

Champeau de López (1993) describes timed reading as the reading texts with similar length and with equal difficulty repeatedly for a period of time with the aim of improving reading fluency. After timed reading, learners are given comprehension questions and these questions are to be answered without looking back to the passages. As the focus of this study is on the effects of timed reading, especially research on timed reading activities is mentioned.

As Anderson (1999) suggests, despite the emphasis on the importance of fluency in reading, there is not much emphasis put on improving reading speed and comprehension in L2 classrooms. For language learners, classroom is the place where they can be exposed to L2 most. However, not giving importance to reading fluency during language lessons hinders learners reading skills and learnings. For these reasons, including activities designed for reading speed and comprehension such as timed readings, repeated readings, word recognition exercises, read-aloud group and pair work, re-reading activities, and extensive reading in curricula can make a difference from the point of reading proficiency of L2 learners. The studies on the effectiveness of these activities show the positive changes in learners' reading fluency.

2.8. The Relationship of Reading Speed and Comprehension

Gaining a faster reading rate is beneficial for L2 learners from many aspects. First of all, the results of the studies show that comprehension is maintained or improved via reading faster. Klaeser (1977) claims that reading faster helps learners save time, concentrate better, increase their academic success and enjoy reading more and consequently raise their motivation. Nuttall (1996) expresses that the slower readers are, the more disappointed they get. This disappointment results in reading less and reading less results in reading more slowly. To enjoy reading, readers must get faster. Fluent readers read faster and comprehend better, they enjoy reading and this results in reading more. Reading more helps gaining better fluency. These cycles are described as “vicious circle of the poor reader” and “the virtuous circle of the good reader” (Nuttall, 1996, p. 127). The elements of these circles are interdependent and foster each other. Krashen (2004) also claims that there is a relationship between reading more and becoming a better reader. The element of joy in reading is crucial and good readers enjoy reading more compared to poor readers. For this reason helping learners to become fluent is of capital importance and fluency activities such as timed reading serve for this purpose.

Hannon and Daneman (2001) claim that there is a relationship between reading speed and comprehension. According to the results of their study, faster readers have higher comprehension levels. Reading speed is proven to be an effective factor on reading comprehension. It has been explained by Baddeley (2007), Chang (2012), and Grabe and Stoller (2011) with the effectiveness of working memory, higher level processes and the amount of time and energy spent on lower level processes. However, to Hannon (2012), comprehension is achieved via long term memory and it is assumed that readers comprehend texts when they integrate their prior knowledge in reading process.

CC-R model of reading hypothesizes that speed directly influences comprehension (Hannon, 2012). The more the amount of time spent on lower-level word processes such as word processing and sentence processing, the lower comprehension level gets according to this model of reading. Even though most theories cannot clearly explain the reason behind the importance of speed in reading and how the complex processes are related to each other during reading, together with all the assumptions and the theories on the importance of speed in reading, CC-R model of reading supports that reading faster leads to better comprehension, and similarly reading slowly leads to poor comprehension. Moving from CC-R model of reading, it can be concluded that improving reading speed of readers is crucial for L1 and L2 readers.

Reading speed and comprehension skills have become a subject of research not only from the point of language pedagogy, but also from other perspectives. For example, eye-tracking has been utilized widely to define reading speed and comprehension levels of learners. Eye-tracking allows researchers to measure saccadic movements, regressions and fixations throughout reading process and correlate reading speed and comprehension (Hill, 2011). As mentioned earlier, it is important to gain automatization in lower level processes which includes decoding and word recognition (LaBerge & Samuels, 1974). It has been found out via eye-tracking that learners should recognize written materials fast in order not to continue reading without comprehension (Dussias, 2010). To Rayner and Clifton (2009), proficient readers can read from 250 to 350 wpm which shows how fast reading process occurs. This discovery might have significant contributions to the field of teaching and learning reading in L2 in terms of improving reading speed and comprehension skills.

2.9. Studies on the Effects of Timed Reading

Utsu's (as cited in Atkins, 2014) research in 2004 and 2005 results show that timed reading increases learners reading rates and comprehension levels. Both the first and the second

research results were consistent and there were meaningful differences between reading rates and comprehension levels of the participants according to the results. Crawford's (2008) research on the effects of timed reading on reading rate proves that timed reading improves learners reading rate and accuracy. Even though how it effects reading rate positively is not explained clearly, the effectiveness of timed reading activities is proven and supported by a number of researchers.

Atkins (2010) explains how understanding of timed reading has changed over time. To the research, timed reading was firstly used only as a means of reading rate and research done with this view was not evaluating comprehension. However, with the questions raised about comprehension, the understanding of timed reading changed. Especially recent studies have measured not only reading rate but also comprehension levels of learners. By changed views on timed reading, it can be said that timed reading activities target improving reading fluency, namely reading rate and comprehension. In the study, Atkins (2010) aimed to investigate the effect of timed reading on reading rate and comprehension and the effect of time in timed reading on fluency. Even though the results do not clearly show the effect of "time" on learners, it is concluded that timed reading helps the learners to gain better fluency in reading.

Chang (2012) explains how timed reading is supposed to improve learners reading rate and comprehension with working memory. Working memory stores information for a limited time, and comprehension is obtained via working memory (Daneman & Merikle, 1996). Learners use their working memory, lower level processes and higher level processes for comprehension (Baddeley, 2007). With time pressure, learners are pushed to spend less time on lower level processes and struggle more with higher level processes. As explained previously, higher level processes are applied to comprehend ideas in written materials and the problem of L2 learners is spending too much time on lower level processes. Limited time forces learners to get the meaning rather than focusing on words and sentence structures. With

this information, it can be assumed that with time limitation, learners are forced to have a more holistic view which leads to general comprehension.

Chung and Nation (2006) did research on the effects of timed reading on reading rate and the results showed that the participants reading rate was greatly improved. Even though the research did not involve a control group to compare the results, the findings were striking. Also, comprehension was not measured in this study. Chang (2010), on the other hand, conducted another research including a control group and measuring both reading rate and comprehension. According to the results, both the experimental group and the control group improved their comprehension and reading rate, however, the experimental group's improvement was much more than the other one. This research shows that time factor of timed reading activities help learners improve both reading comprehension and reading speed because if it was otherwise, the control group's results would have been the same as the experimental group's in this study.

Another study conducted by Chang (2012) compared the effects of timed reading and repeated oral reading on reading rate and comprehension. The results showed that both groups improved their reading rate and comprehension. However, the group that had timed reading showed much more significant improvement than the other group especially from the point of reading rate. Even though it was proven that both activities helped the learners to improve their comprehension and reading rate, timed reading activities was found much more effective than repeated reading activities.

Tran and Nation (2014) designed a study to measure the effects of timed reading lessons on reading speed, comprehension and memory span of learners. The results were consistent with the earlier studies from the point of speed. According to the results, speed reading courses helped learners to increase their speed without decreasing their comprehension. It was found out that learners in the control group read more slowly when they wanted to

comprehend better. This result shows that when learners are taught speed reading, they read faster and maintain or improve their comprehension. However, when learners do not have speed reading courses, their speed decreases with the struggle of comprehension. It was also found out that speed and memory span were somehow related. The faster the participants got, the bigger memory span they had yet the nature of these two elements' relationship was not revealed. These encouraging results prove that timed reading is helpful for L2 learners both for speed, comprehension and memory span. Integrating speed reading into reading lessons can be really helpful for L2 learners to become good readers.

In 2010, Chang designed a study to test the effects of timed reading on EFL learners' speed and comprehension and Chang (2010) also conducted a survey on learners' perceptions of timed reading. 84 college students, 38 participants in experimental group and 46 participants in control group, had timed reading sessions for 13 weeks, 15 minutes each week. After 15 weeks, 2 weeks for pre-test and post-test, participants in the experimental group were asked to write anonymous letters on their perceptions about timed reading sessions. The results of the study showed that the participants in experimental group improved their speed 25% and the participants in control group improved their speed 5%, however, these results were not statistically significant. The results of comprehension were similar to the results of speed. Both groups improved their comprehension but there was not a significant difference between groups. In the survey, the learners reported that they felt great pressure of time, however, this pressure helped them focus better and they realized that they could read faster when they focused without compromising comprehension. The results show that there is a difference between experimental and control groups yet this difference is not statistically significant. During this study, timed reading was applied only 15 minutes each week. Giving more time on fluency based activities may change this difference from being insignificant to significant.

Tran and Nation (2014) designed a study on the effects of speed reading (timed reading) courses on speed and language memory span. Also, the transferability of increased speed to other types of reading was investigated in the scope of the study. The study was conducted on 2 experimental groups and 2 control groups consisting of 116 first year students at a university in Vietnam. For 10 weeks, students in the experimental group had speed reading sessions twice a week and followed the usual English program which lasted for 15 weeks. One of the experimental groups followed the usual English program while the other experimental group attended an English course at a language centre. The results show that speed reading courses improved speed continually and learners either kept or improved their comprehension besides improved reading speed. Also, it was concluded that increased reading speed was transferred to other types of reading. The effect of speed reading intervention on memory span was also remarkable. Speed reading courses was proven to have significant effect on memory span. The experimental groups had notable memory span gains in comparison with control groups. This study shows that speed reading intervention has significant effects on not only fluency but also language memory span and improved speed can be transferred to other reading types.

Atkins (2010) conducted a study to find out the effects of timed reading on reading fluency in L2 classes. 101 students, all in their first year, taking a required English course at a private university in Japan were participated in the study. The students in that university were grouped as 5 classes according to their level of proficiency, from level 1, the lowest proficiency to level 5, the highest proficiency level. 5 classes participated in this study; 2 level 2 classes, 2 level 4 classes and 1 level 5 class. The level 4 and level 5 classes had timed reading intervention for 10 weeks as a part of their lessons. One of the level 2 classes had timed reading once a week for 12 weeks and the other level 2 class was the comparison group. The results of this study show that timed reading effects reading speed positively especially

when it is applied with vocabulary coverage. Differences between level 2 classes were insignificant, however, the experimental group showed more improvement than the control group.

Chung and Nation (2006) carried out a study on the effects of speed reading courses which was described in a similar way as timed reading in the study. The participants, 40 Korean learners of English at university level, had speed reading activities for over nine weeks and read 23 passages in total. According to the results, 38 out of 40 learners increased their reading speed 52% on average, some of them followed a steady increase while some others were observed to have a different pattern of improvement. This study also has encouraging results and shows that speed reading is effective on L2 learners' speed improvement. Considering the significance of fluent reading, it is worth trying integrating speed reading in L2 reading lessons.

In 2010, Macalister conducted a study on ESL learners at a university in New Zealand to test the hypothesis that suggests increased speed via speed reading course may not be maintained when it is re-assessed after some time from the intervention. 36 learners were participated in the study, 24 in the experimental group, and 12 in the control group. Learners were in a 12 week preparation program and in the first 6-week period, participants in the experimental group read 17 texts in a speed reading course. The control group did not have speed reading intervention, instead, they had incorporate extensive reading. Delayed post-test was applied in the 12th week. The results showed that all of the participants, except 5 learners in the control group, improved their reading speed, however, the ones in the experimental group increased significantly more than the others. In the delayed post-test, under 50% of learners showed no change or decrease in reading speed. The results of this study also showed that learners who had speed reading courses were more likely to read authentic texts faster

than the learners who did not. Even though this study is conducted on ESL learners, the effectiveness of speed reading intervention on reading speed is proven.

Chang's (2012) study on timed reading and repeated oral reading reveals to what extent improving reading rate activities affect EFL learners' reading speed and comprehension, and whether the improved rate can be retained for up to six weeks after the intervention. 35 adult EFL learners were participated in this study and divided into two groups, 17 and 18 learners, as timed reading class and repeated oral reading class. Each class met once a week for 60 minutes. The timed reading group read 52 passages while oral repeated reading group read 26 passages as they could only read during the lesson. According to the results of the study, both groups increased their reading speed and comprehension, both groups' speed was higher after the interventions, however, timed reading intervention was statistically more effective than repeated oral reading. It was found out via delayed post-test that both groups retained their reading speed gain up to six weeks. The results of delayed post-test demonstrated that when comprehension levels were compared, timed reading group made more improvement and also retained higher comprehension level than repeated reading group. The results of this study show that fluency based activities help learners to improve their reading speed and comprehension, however, timed reading activities are more effective than oral repeated reading activities.

Crawford (2008) designed a study to investigate the effects of timed reading on Japanese university students' reading rate and if the effects of timed reading differ between slow and fast readers. 48 participants had timed reading instruction for 11 weeks and 33 passages were read in total. Slow and fast readers were detected at the beginning of the application. The results revealed that both slow and fast readers increased their reading rate and comprehension level. Considering the results of this study, Crawford (2008) also suggests that teacher should consider benefiting from fluency based activities in their reading lesson plans

without the expectation of immediate boost in reading fluency as the effects of timed reading can be observed when timed reading is applied regularly for a period of time rather than just once or twice.

All in all, research in EFL teaching literature shows that reading fluency is an important aspect of reading both in L1 and L2. Fluency can become easier to achieve in L1 as the learners expose to the language in their natural environment. Nevertheless, it should be included in L2 reading programs and taught in language classrooms to achieve better fluency in L2 reading because of the reason that language classrooms are the only places that learners are exposed to the target language. The studies mentioned previously in the current study illustrate that applying timed reading practices affect learners' fluency and help them become better readers in L2. Even though not all the studies find a significant difference with regards to speed and comprehension, descriptive statistics show improvement in both speed and comprehension in all the studies to the researchers' knowledge. Seeing that certain improvement is achieved via timed reading practices, it can be concluded that timed reading practices have been found benign to improve reading speed and comprehension and more studies should be designed to investigate the efficacy of these practices on learners from different backgrounds along with different proficiency levels of the target language for the purpose of enhancing the implementation of timed reading practices and raising learners fluent in L2 reading.

CHAPTER 3

Methodology

The main purpose of this study is to find out the effects of timed reading intervention on reading speed and comprehension of Turkish learners of English at university level. This purpose was taken as a goal for several reasons. Firstly, there is a scarcity of studies related to fluency based activities in L2 learning environments in the literature. Secondly no studies related to fluency based activities applied on Turkish L2 learners are found in the literature. The third reason is that even though fluency is one of the goals of L2 reading lessons, no or few fluency based activities are applied in L2 reading lessons in Turkey. All these reasons raised the purpose of this study.

The aim of this chapter is to introduce research questions and research design. Additionally, information related to the participants of the study, materials that are used to collect the data, data collection procedures and data analysis procedures are explained in this chapter.

3.1. Research Design

The main purpose of this study is to measure the effects of timed reading practices on reading speed and comprehension levels of Turkish EFL learners. Given the situation that the study was carried out in the department of foreign languages, the researcher had to use intact classrooms. As a result, a quasi-experimental two groups pre-test post-test study design was employed to within the context of the research.

Participants should be chosen and randomized for the study to have a true experiment design (Nunan, 1992). In a school setting, it is not possible to randomize the participants, though. Considering the purpose and the setting of the study, a quasi-experimental study design was found appropriate to gather quantitative data from the participants and measure the

difference caused by timed reading intervention between learners' reading speed and reading comprehension before and after the intervention.

Gathering data from just one group lowers the internal validity of studies (Nunan, 1992). To improve internal validity of the study, participants were divided into experimental and control groups randomly and the same pre-test and post-test were deployed at the same time to both groups. All of the participants were enrolled in the foreign language department of a state university in Turkey and the learners were assigned to intermediate level English classes with respect to their scores in midterm and final tests that were prepared by the lecturers in the department. The system of the chosen university assigns learners to classes randomly which ensures the randomness of the sample group. However, the classes that were chosen to gather data from were not pre-prepared for the experiment. For this reason, even though intact groups of subjects had to be participated in the study, randomness of the groups had not become a matter of question.

3.2. Participants

74 intermediate level English learners were participated in this study. In the process of statistical analysis, 6 participants from the experimental group and 4 participants from the control group were left out since they were detected as outliers via side by side plotting of the raw data. Consequently, even though 74 learners were participated in the study, however, only 64 of them were included in the analysis procedure.

All the participants were students in preparatory class of a state technical university in the west of Turkey. As all the participants were students of a technical university, their language education background and level of English were the same.

Neither of the participants studied languages as their branch in their previous education life as they were needed to be majoring in science to get into a technical university. All of them started as elementary level English learners at the beginning of academic year of 2015-2016.

Their levels were determined by a placement test when they first started university. They had seven weeks of elementary level English education, and seven weeks of pre-intermediate level English education. During elementary and pre-intermediate levels, the participants were tested periodically and to pass each level, they were needed to pass a level test. 70% of success was required from learners to pass each level. After they passed the level exam, they became intermediate level learners. Applied placement test and level exams were all prepared by the lecturers working in the testing office in the setting of the current study.

The participants were randomly chosen among approximately 200 intermediate level learners. The chosen intact groups of the learners were randomly divided into two groups as experimental and control group. Even though gender and age were not considered as a variable in this study, the number of male and female learners were homogeneous and the ages of participants were between 17 and 21.

3.3. Materials

3 reading passages and following comprehension questions were applied as pre-test and post-test (See Appendixes). Pre-test and post-test reading passages were 500 words (See Appendix 1), 900 words (See Appendix 2) and 1500 words (See Appendix 3). The 500-word level and 900-word level reading passages were taken from *Cover to Cover Reading Comprehension and Fluency Book 2* (Day & Harsch, 2008) and 1500-word level was taken from the online grader book, *The Thames Murderer* (Allsworth, n.d.). All the reading passages were for intermediate level English learners. All pre-test, post-test passages were not taken from the same book because *Cover to Cover Reading Comprehension and Fluency 2* does not include passages more than 900 words. *Cover to Cover Reading Comprehension and Fluency 2* was used for data collection because one of the aims of the book is to improve reading speed and comprehension. 3 passages from *Cover to Cover Reading Comprehension*

and Fluency 2 were read once a week for 5-week period, at the end of the study, the learners read 15 passages in total.

The shortest reading passage utilized in the pre-test and the post-test is “A Woman Who Loves Boxing” which is about the life of Muhammed Ali’s daughter Laila Ali. The text is biographical. 900-word text was “The Death of Karen Silkwood” which is a story about a mysterious death of a woman. 1500-word text is an excerpt from the e-book “The Thames Murderer”. It is the first chapter of a story about a murderer. The setting is given, several characters are introduced, and intriguing incidences are given in the chosen excerpt. Only the first chapter is chosen from the book in order not to exceed 1500 words. During the intervention, the texts that were given to the learners were informative written in light tone without usage of terminological words. The topics of the texts were interesting and appealed to the general knowledge of learners. Interesting topics, lack of terminological words and passages being short made timed reading intervention enjoyable for learners and applicable in classroom environment.

3.4. Data Collection Procedures

During pre-test and post-test procedures, the participants were given the shortest passage first and they were instructed to note down their reading time. By doing so, calculating the number of words read per minute was aimed. After they finished reading, the text was taken and the comprehension questions of the passage were given to the participants. As timed reading requires, the participants were not allowed to go over the passage when they were answering the questions. The second reading passage was given to the learners right after they answered the questions. The same procedure was applied for the second and the third reading passage. Since the books aiming to improve fluency via timed reading included mostly multiple choice questions, all the comprehension questions preferred for timed reading

activities in this study were given in multiple choice format. Pre-test and post-test were applied before and after 5-week timed reading intervention.

After pre-test week, the participants in the experimental group were given three reading passages, each at 500-word level. Normally learners are instructed to read as fast as they can and note the time when they finish reading to do a timed reading activity. However, the participants were given 3 minutes to read each text but there was no time limitation to answer the questions. All the participants started reading at the same time and after 3 minutes, they stopped reading, handed in the reading passage and were given comprehension questions of the text they read. After they answered all the questions, they were given the second text and the same procedure was applied for all 3 texts once a week for five weeks.

3 minutes were decided for each text considering the average reading rate assumed for L2 learners and L1 readers (Carver, 2000; Grabe, 2009; Nation, 2009). 3 minutes were effective to make the learners feel time pressure, however, it was also enough for them to finish the text. During a five-week period of time, the learners were given 15 reading passages, each was taken from *Cover to Cover Reading Comprehension and Fluency 2*. After the applications, the answers of the questions were discussed with the participants.

The participants in the control group were given the same texts, and same comprehension questions. They were not allowed to go over the text to answer comprehension questions, either. The difference between the experimental and control groups was the element of time. The experimental group was limited to three minutes to read a text, while there was no such limitation in the control group. This difference would shed light on the effect of time pressure on learners reading speed and comprehension.

Post-test was applied in the seventh week of data collection procedure. The reading passages that were used for pre-test were used for post-test. Only a few participants remembered the texts because even though seven-week period is not a long time, the

participants had a lot of exams and 22 hours of English lesson each week. For this reason, it was normal for them to forget the texts and the questions. None of the groups were limited from the point of time. The participants noted down their reading time on the texts. At the end of the procedure, pre-test and post-test results were compared statistically in terms of comprehension and speed.

All the procedures were conducted by the researcher or under the researcher's supervision to make sure that the procedures were followed correctly.

3.5. Data Analysis Procedure

3.5.1. Measuring. Reading speed in seconds was converted to words per minute (wpm) using the formula; total number of words of the text divided by the reader's reading time in seconds multiplied by 60. The reading speed of the 3 articles after conversion to wpm were later averaged to get an average reading speed.

On the other hand, reading comprehension score was computed by summing up the total number of correct answers from the 3 comprehension passages. One point was given for each correct answer such that the maximum point an individual could score was 26 and the lowest was 0.

3.5.2. Analysis. SPSS version 18 was used for the statistical analysis. Preliminary analysis showed that at the beginning of the study, the experimental group had a higher mean reading rate compared to the control group and the difference was statistically significant ($t(51.53) = 4.12, p < 0.001$) (see table 1). For this reason, ANCOVA was assumed appropriate for the analysis of reading rate. This possible effect of the difference in initial reading rate between the experimental and control groups was accounted for by using ANCOVA which included pre-test reading rate as a covariate.

For the comprehension score, at the start of the study, prior analysis revealed that the difference between the experimental and control group comprehension score was not

statistically significant, so repeated measures ANOVA was performed instead of ANCOVA.

Paired sample t test was also utilized for the comprehension analysis.

For within group analyses, paired sample t-test was utilized to find out the differences between pre-test and post-test within the group individually.



CHAPTER 4

Results

The purpose of this study is to find out the effects of timed reading on ELF learners' reading speed and comprehension levels. To achieve the goal of the study, a quasi-experimental two groups pre-test post-test study has been designed and 5 weeks of timed reading intervention, plus pre-test before the intervention, and post-test after the intervention have been applied.

This chapter presents statistical analyses of gathered data and answers the research questions in the light of the analyses. The results are analysed under three main headings; the results for the experimental group, the results for the control group, and comparisons of the groups. Experimental and control groups' results focus on both reading speed and comprehension levels within groups while comparison of the groups measures the differences between groups.

4.1. Results for the Experimental Group

4.1.1. The improvement in the reading speed. RQ1. Do EFL learners who receive timed reading intervention improve their reading speed during the study?

Table 1

The results of experimental group for the variable "speed"

Experimental Group (n=31)	\bar{X}	t	p
Pre-test	136,3784	-8,658	0,00
Post-test	196,7250		

Paired samples t test was applied to find out whether the participants in the experimental group improved their reading speed during the study. The results of the analysis show that the learners in the experimental group had a mean pre-test reading speed of 136.38 wpm and a mean post-test reading speed of 196.73 wpm which means a 44% gain in their reading speed

(See Table 1). The learners in the experimental group improved their reading speed after having timed reading practices in the course of five-week application and the difference is statistically significant ($t = -8,658, p=0,00<0,05$).

RQ2. How many words per minute do EFL learners who receive timed reading intervention increase their speed during the study?

Table 2

Percentage change in the experimental group for the pre-test and post-test (n=31)

Speed range (wpm)	Pre-test(%)	Post-test(%)
Below 130	45.2	3.2
130-149	29.0	9.7
150 and above	25.8	87.1

When the reading speed increase of the experimental group is divided into 3 groups to acquire a clear presentation of the results, during the pre-test period in the experimental group, 45.2% of the learners had a reading speed below 130 wpm, however, after the post-test, just about 3.2% of the learners had a reading speed below 130 wpm. The percentage of learners with reading speeds of 150 and above wpm after the post test was 87.1% in comparison with 25.8% during the pre-test period. The results shown in Table 2 above reveals that 87.1% of the learners in this group scored over 150 and above wpm after the intervention.

Table 3

Means and standard deviations of reading speed for the experimental group at two different time period

Experimental (n=31)	Mean (wpm)	SD	Range
Pre-test	136.38	29.89	84.24-197.50
Post test	196.73	44.66	108.65-296.43
Gains	+60.35 wpm or 44%		

Table 3 shows the improvement more clearly. The slowest participant in pre-test was reading 84.24 wpm while in post-test, the number has risen to 108.65 wpm. On the other hand, the fastest learner in pre-test was reading with the rate of 197.50 wpm. When the results of post-test are analysed, it is found out that the fastest reader has reached to 296.43 wpm reading speed. The range that is attained via post-test results is between 108.65 and 296.43 which is closer to the idea of an L2 learner's ideal reading rate; 200 wpm as suggested by Carver (2000), 250 wpm by Nation (2009), and between 190 and 229 wpm by Yoshitomi, Umino and Negishi (2006).

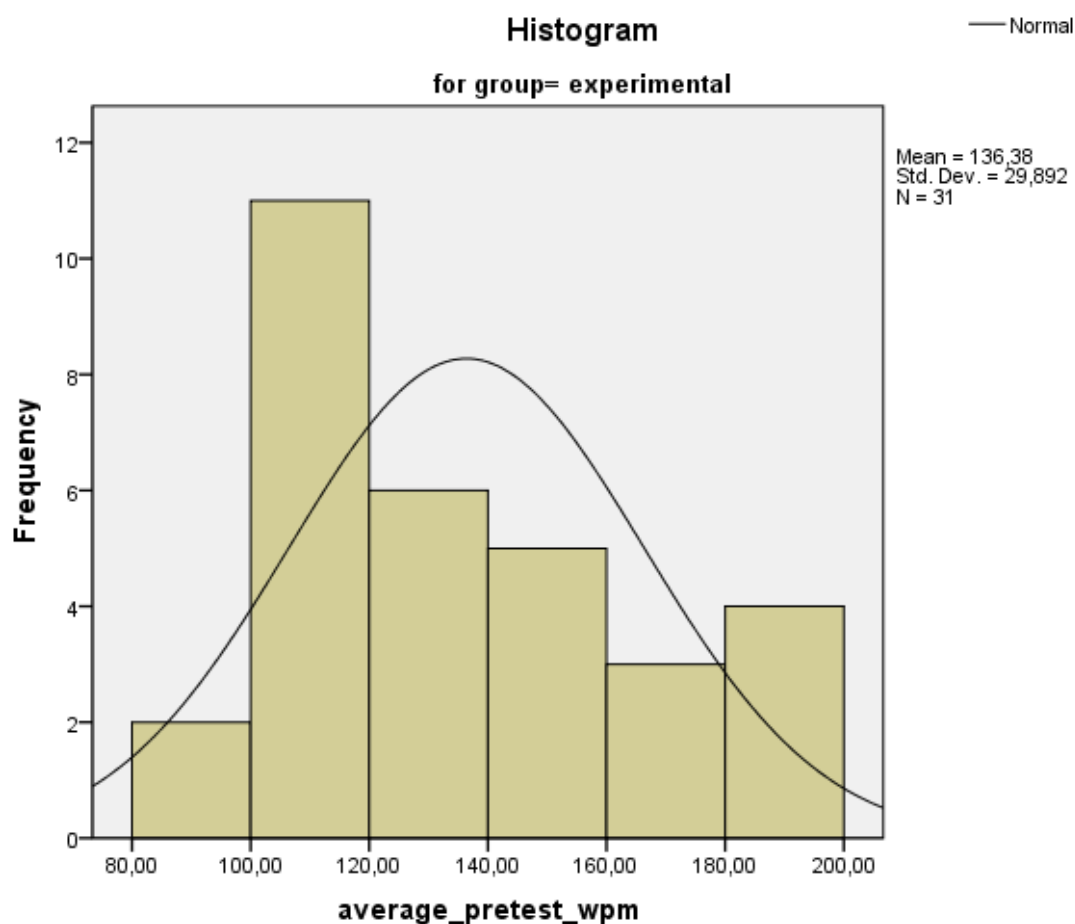


Figure 1: Pre-test reading speed of experimental group

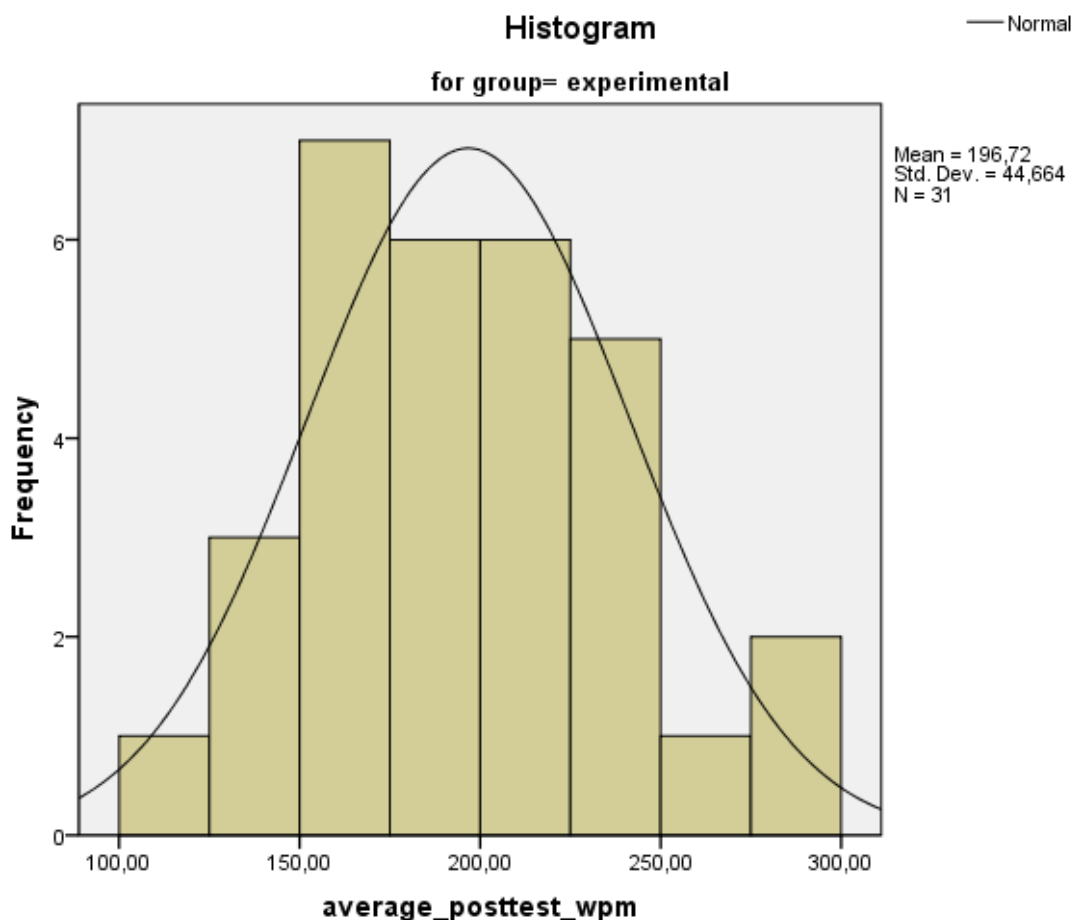


Figure 2: Post-test reading speed for experimental group

4.1.2. The improvement in the reading comprehension skills. RQ3. Do EFL learners who receive timed reading intervention improve their comprehension skills during the study?

Table 4

The results of experimental group for the variable “comprehension skills”

Experimental Group (n=31)	\bar{X}	t	p
Pre-test	18,3871	-2,978	,006
Post-test	19,6452		

The participants in the experimental group had a mean score of 18.39 in the pre-test while their mean score increased to 19.65 in post-test. The results clearly illustrate that the learners

in the experimental group have improved their comprehension skills via timed reading practices

(See Table 4).

RQ4. To what extent do EFL learners who receive timed reading intervention improve their comprehension skills during the study?

Table 5

Means and standard deviations of comprehension score for the experimental group at two different time period.

Experimental Group (n=31)	Mean	SD	Range
Pre-test	18.39	2.89	12-24
Post test	19.65	3.02	14-25
Gains	1.26 or 7%		

When the results of pre-test and post-test are considered, the learners in the experimental group gained a score of 1.26 or in other words 7% reading comprehension after timed reading intervention (See Table 5). As it is shown in Table 4, the difference is also statistically significant which means that timed reading intervention made a meaningful difference on the learners' comprehension levels ($t = -2,978, p=0,006 < 0,05$).

4.2. Results for the Control Group

4.2.1. The improvement in the reading speed. RQ5. Do EFL learners who do not receive timed reading intervention improve their reading speed during the study?

Table 6

The results of control group for the variable “speed”

Control Group (n=33)	\bar{X}	t	p
Pre-test	110,0913	-8,094	0,00
Post-test	153,0923		

Participants belonging to the control group scored 110.09 wpm in pre-test while their score increased to 153.09 wpm in post-test. The results of paired sample t test analysis reveal the improvement in reading speed gained by the participants in control group (See Table 6).

RQ6. To what extent do EFL learners who do not receive timed reading intervention improve their reading speed during the study?

Table 7

Means and standard deviations of reading speed for the control group at two different time period

Control (n=33)	Mean	SD	Range
Pre-test	110.09	19.75	75.24-140
Post test	153.09	32.14	93.33-210
Gains	+43.00 wpm or 39%		

The results of statistical analysis show that participants in the control group gained 43.00 wpm, namely 39% increased reading speed in the course of 5-week-reading application even though they did not receive any timed reading intervention. According to the analysis shown in Table 6, this difference between pre-test and post-test is also statistically significant.

(t= -8,094, p=0,000<0,05)

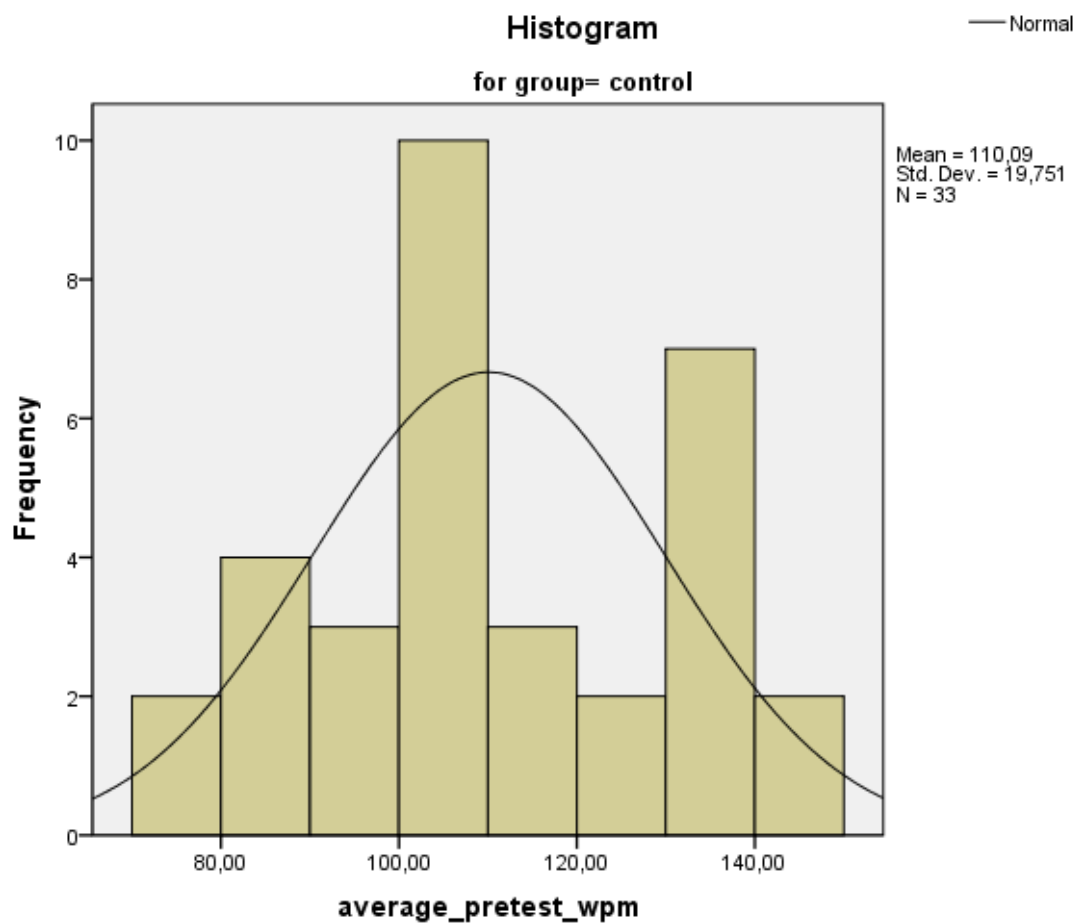


Figure 3: Pre-test reading speed of control group

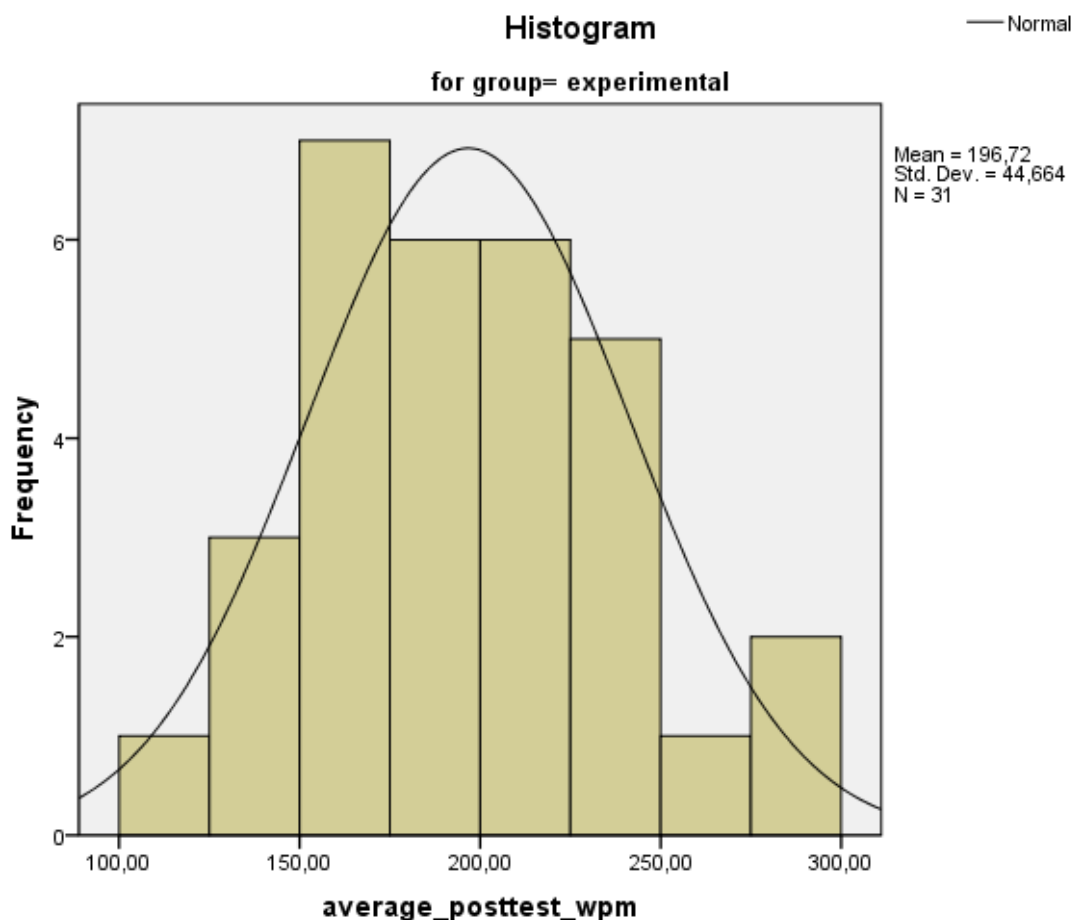


Figure 4: Post-test reading speed for control group

4.2.2. The improvement in the reading comprehension skills. RQ7. Do EFL learners who do not receive a timed reading intervention improve their comprehension skills during the study?

Table 8

The results of control group for the variable "comprehension skills"

Control Group (n=33)	N	\bar{X}	t	p
Pre-test	33	18,4848	-1,020	,315
Post-test	33	19,1515		

Control group has a mean score of 18.48 reading comprehension in pre-test while the results of the post-test show a mean score of 19.15. As shown in Table 8, there is an obvious comprehension gain after 5 weeks of reading practices.

RQ8. To what extent do EFL learners who do not receive timed reading intervention improve their comprehension skills during the study?

Table 9

Means and standard deviations of comprehension score for the control group at two different time period.

Control (n=33)	Mean	SD	Range
Pre-test	18.48	3.81	11-25
Post test	19.15	4.40	10-28
Gains	0.67 or 4%		

The comparison of pre-test and post-test results indicates to a 0.67 increase in control group's reading comprehension level. In percentages, there is a 4% increase in the comprehension level of control group after reading intervention although the participants were not exposed to timed reading intervention (See Table 9). Even though descriptive statistics point to an increase in comprehension level, the difference of control group's pre-test and post-test is not statistically significant considering comprehension as shown in Table 8 ($t = -1,020, p=0,315 > 0,05$).

4.3. Results for the Comparisons of the Groups

4.3.1. Comparison of Reading Speed. RQ9. Are there any significant differences between the experimental group and the control group in terms of reading speed?

Table 10

Means and standard deviations of reading speed for the experimental and control groups at two different time period

	Experimental (n=31)			Control (n=33)		
	Mean (wpm)	SD	Range	Mean	SD	Range
Pre-test	136.38	29.89	84.24-197.50	110.09	19.75	75.24-140
Post-test	196.73	44.66	108.65-296.43	153.09	32.14	93.33-210
Gains	+60.35 wpm or 44%			+43.00 wpm or 39%		

The learners in the experimental group improved their reading speed after having repeated timed reading practices in the course of five-week application. The learners in the experimental group had a mean pre-test reading speed of 136.38 wpm and a mean post-test reading speed of 196.73 wpm, with a gain in their reading speed by 60.35 wpm (44%) after the reading interventions (See Table 10).

The learners in the control group also improved their reading speed, but not as strongly as those in the experimental group. The learners belonging to the control group increased their reading speed from 110.09 wpm in pre-test to 153.09 wpm in the post test with a gain of 43.00 wpm (39%) (See Table 10).

Comparing the results of both groups, it is clear that the learners who received a timed reading intervention for 5 weeks improved their reading speed 20.35 wpm more than those in the control group.

Table 11

Test of Between-Subject Effects with post-test reading speed as dependent variable

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	51244.930	2	25622.465	21.683	0.000
Intercept	18053.908	1	18053.908	15.278	0.000
Pre-test	20813.768	1	20813.768	17.614	0.000
Group	7488.846	1	7488.846	6.338	0.014
Error	72081.282	61	1181.660		
Total	2066047.087	64			
Corrected Total	123326.213	63			

R Squared =0.416 (Adjusted R Squared =.396).

The ANCOVA shows that post-test reading speed after intervention is dependent on the pre-test reading speed ($F(1, 61)=17.614$; $p<0.001$; *partial* $n^2 =22.4%$) which shows that the dependent variable is post-test reading speed. After controlling for the variables, the results show that there is a significant difference between experimental and control group's post-test reading speed ($F(1, 61)=6.338$; $p=0.014$; *partial* $n^2 =9.4%$) (See Table 11).

The model had an R^2 of 41.6%, indicating that 41.6% of the variation in the post-test reading speed is explained by the pre-test reading speed of the group in which the participants were included. R^2 of 41.6% shows that the implications of the analyses for this study is acceptable (See Table 11).

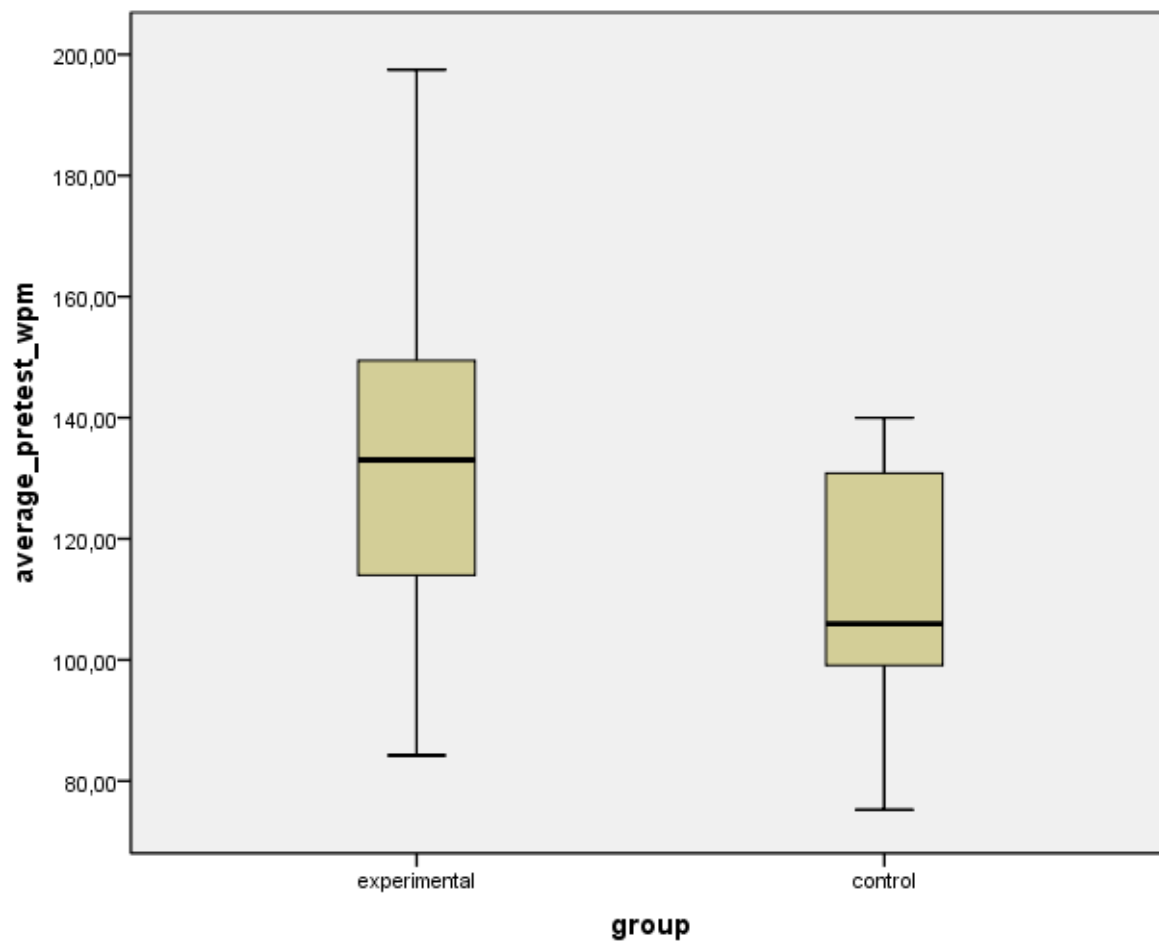


Figure 5: Box plot for pre-test reading speed

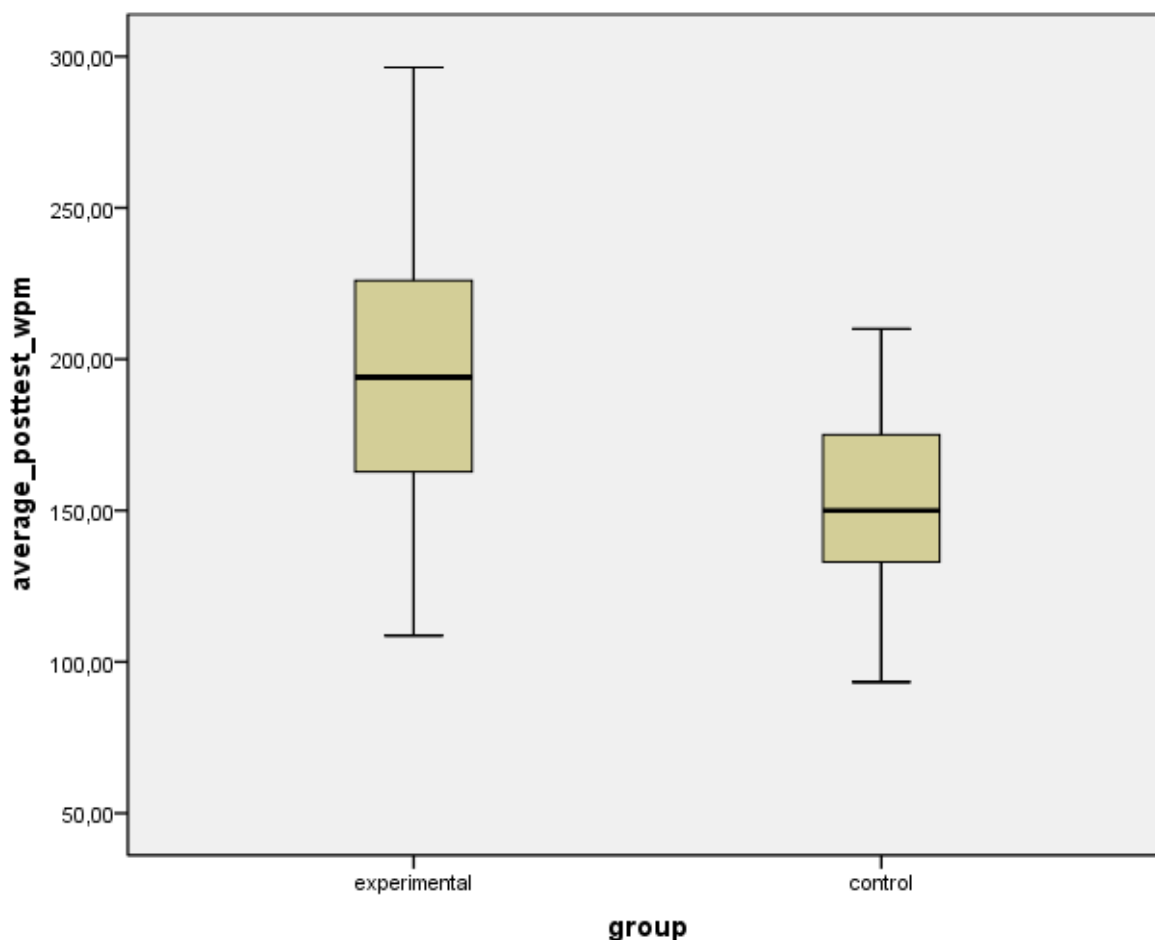


Figure 6: Boxplot for post-test reading speed

4.3.2. Comparison of Reading Comprehension Skills. RQ10. Are there any significant differences between the experimental group and the control group in terms of reading comprehension?

Table 12

Independent sample t test for Pre-test comprehension score

Group	N	Mean	df	t	P value
Experimental	31	18.39			
Control	33	18.49			
Total	64		62	0.115	0.909

The result of the preliminary analysis showed that at the beginning of the study, the mean comprehension score of the pre-test for the experimental group was lower than that of the control group, however, the difference was not statistically significant, so repeated measures ANOVA were performed instead of ANCOVA (See Table 12).

Table 13

Repeated measures of ANOVA for comprehension score for the variables of group and time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	η^2
<i>Within subject effects</i>						
Time	29.608	1	29.608	5.948	0.018	0.088
Time*Group	2.795	1	2.795	0.562	0.456	0.009
Error	308.634	62	4.978			
<i>Between subject effect</i>						
Group	1.253	1	1.253	0.060	0.808	0.001
Error	1298.30	62	20.940			

The analysis of repeated measures ANOVA is set out in Table 13. For within-subjects effects, the interaction effect for time and group was not found significant. However, a significant effect was found for time $F(1, 62) = 5.948, p = 0.018$. The time effect indicates that both groups improved their comprehension score from pre-test to post-test as evident in Table 13. For between-subjects effects, no main effect was found for Group $F(1, 62) = 0.060, p = 0.808$, suggesting that the 5 weeks intervention did not make a significant difference in comprehension score between the experimental and control group.

The histograms in Figures 1, 2, 3 and 4 suggest that the distribution of reading scores in both the control and experimental groups during pre-test and post-test follows an

approximately normal distribution. A test of normality was also carried out using the Kolmogorov-Smirnov test. In the Kolmogorov-Smirnov test, the p values associated with the hypothesis that the data follows a normal distribution were as follows; pre-test experimental group ($p=0.120$), pre-test control group ($p=0.127$), post-test experimental ($p=0.200$) and post-test control ($p=0.121$). In addition, the box plot (See Figure 5 and 6) for the distribution of reading rate of pre-test and post-test showed that whiskers on both side of the box did not go beyond the minimum and maximum values.

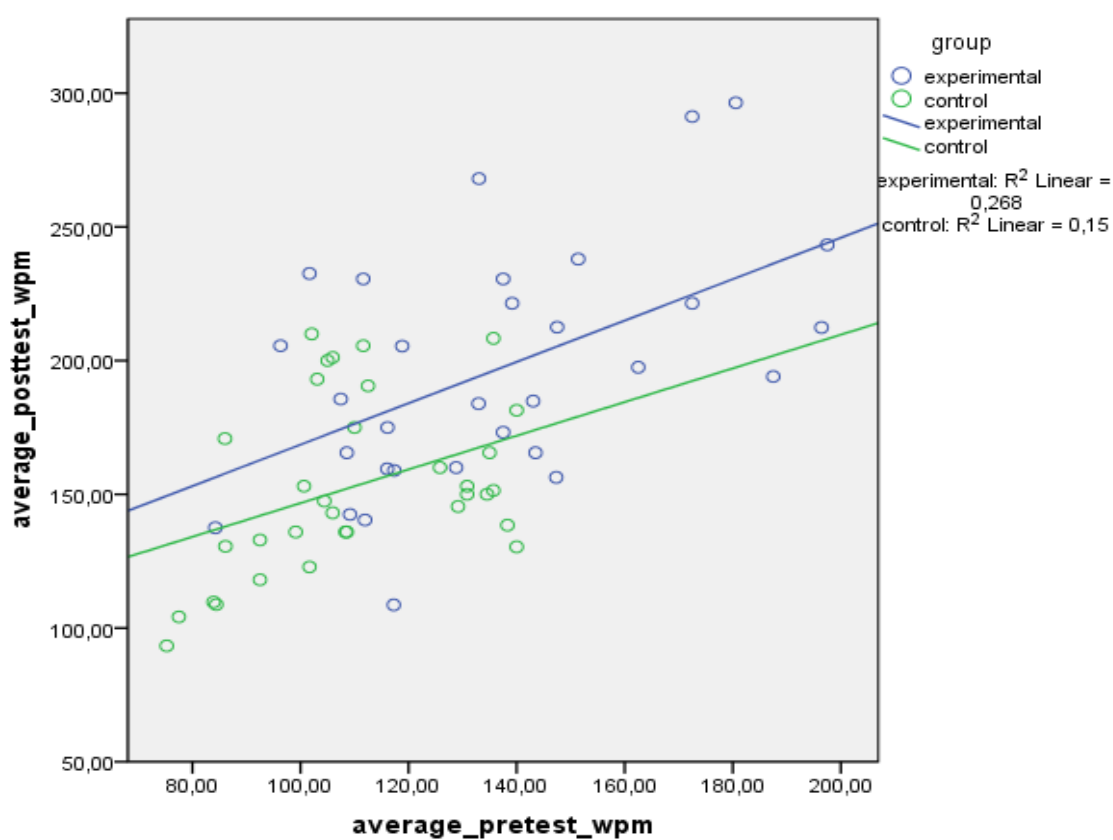


Figure 7: Scatter plot for pre-test and post-test reading rates

In Figure 7, linearity of the relationship between pre-test and post-test reading scores, one of the assumptions underlying ANCOVA was assessed through scatter plot. The line of best linear fit was fitted separately for the control and experimental group. From the graph, it can be implied that both regression lines are almost equal.

CHAPTER 5

Discussion and Suggestions

The purpose of this chapter is to discuss all the answers of research questions with the summary of results and possible effects of timed reading intervention on EFL learners' reading speed and reading comprehension rates by synthesizing the results of this study in the light of related literature. The focus of this chapter is to put emphasis on the changes in reading speed and comprehension levels after timed reading intervention and to explain and discuss the results with existing literature.

5.1. Discussion of the Findings

To achieve the purpose of this study, which was to find out the effectiveness of timed reading on EFL learners' reading speed and comprehension levels, a quasi-experimental study was designed and the results of the experimental and the control groups were statistically analysed both within and between groups. 11 research questions were addressed throughout the study to find answers related to the efficiency of timed reading intervention.

The first research question was asked to find out whether the learners improved their reading speed after timed reading intervention. Descriptive analysis demonstrated 44% gain in reading speed and this difference was found statistically significant via paired sample t test. The findings of the study showed that the learners' reading speed considerably increased thanks to timed reading intervention. Comparison of findings related to the first research question with studies also focusing on the relationship between reading speed and timed reading practices points out a number of similarities despite the differences in study designs. The results of the current research are in parallel with both Chung and Nation's (2006) study which was designed only to scrutinize speed gains via timed reading and Chang's (2010) research which is also such as to prove the efficacy of timed reading in terms of speeding up L2 learners reading. The assumption that timed reading intervention is helpful for learners to

improve their reading speed which is claimed to be crucial to become an efficient reader by a great number of researchers (Baddeley, 2007; Chang, 2012; Grabe & Stoller, 2011; Hannon & Daneman, 2001; Klaeser, 1977; Nuttall, 1996; Rasinski, 2014; Ur, 2012) can conclusively be derived from the results of the current and consistent studies.

The second research question was addressed to find out how many words per minute EFL learners who received timed reading intervention during the study increased their speed. As the findings of the study presented, the participants gained 60.35 wpm after timed reading intervention and reached to an average of 196.73 wpm speed. The number of the words the learners read per minute increased drastically after the intervention and the learners became closer to the ideal number of average 200 wpm suggested by Carver (2000). Additionally, Nation (2009) and Grabe (2009) claim that the average reading rate of L2 learners ranges from 80 to 120 while this range changes from 200 to 300 when L1 readers are considered (Grabe & Stoller, 2011; Pressley, 2006). The fact that the participants reached more than 190 wpm clearly shows that even with the limitation of 5-week-period of application, the learners gained a reading speed of almost the ideal range.

Crawford (2008) also found timed reading effective in increasing reading speed and 21.7 wpm gain was ascertained via Crawford's (2008) study. Similarly, Chung and Nation (2006) reported 52% speed gain on average as a result of their study. Moreover, Macalister's (2010) preliminary investigation on the effect of speed reading, which was defined in an analogous way as timed reading in Macalister's (2010) study, evidently revealed impressive gains in reading speed after the intervention. All in all, studies investigating the effects of timed reading on speeding up learners' reading conclude the effectiveness of such practices and corroborative findings have been acquired from the present study.

The third research question aimed to find out whether learners who were exposed to timed reading intervention improved their comprehension during the study. Regarding to the results,

the participants' comprehension improved in parallel with their speed and the participants in the experimental group performed 18.39 comprehension in the pre-test while this mean score raised to 19.65 in post-test. An obvious increase in learners' comprehension levels was obtained on account of timed reading intervention.

The fourth research question focused on how much progress EFL students made in terms of comprehension after timed reading intervention. The findings of the study revealed statistically significant difference between pre-test and post-test results of the experimental group. Statistically meaningful progress was made by the learners in the wake of timed reading intervention. Descriptive statistics indicated that a 1.26 or in other words 7% reading comprehension gain was yielded by means of timed reading intervention. With regard to these results, it can be postulated that timed reading intervention is efficient and it helps learners to raise their reading speed and comprehension simultaneously.

The results for increased reading speed and comprehension due to timed reading intervention are consistent with similar studies in the existing literature. Crawford (2008) designed a similar study to discover the effectualness of timed reading practices on L2 learners. Regardless of the absence of a control group, the results are in parallel with the current study. The participants increased their speed and comprehension significantly and proved timed reading to be effective both for reading speed and comprehension. Underwood, Myskow and Hattori (2011) also investigated the efficiency of speed reading instruction on reading comprehension and the study's results showed a significant difference in all aspects. The experimental group was found to improve their comprehension significantly in comparison with both before the intervention performance of themselves and the control group. Even though being different in design, the results of mentioned studies lead to the conclusion that including timed reading practices into reading sessions is important to improve L2 reading speed and comprehension.

Utsu's (as cited in Atkins, 2014) studies in 2004 and 2005 also proved the effectiveness of timed reading practices through which improvement in both reading speed and comprehension was reported. A study, designed to investigate time pressure's influence on students' reading fluency in Saudi Arabia, concluded that learners advanced their reading comprehension hereby increased reading speed thanks to timed reading intervention (Golam & Karim, 2015). Nation (2009) states that reading too slowly brings about less comprehension. Furthermore, Jodai and Tahriri (2011) also remark that reading speed and comprehension are interrelated. The current study deduces that timed reading practices are efficacious on learners' reading comprehension along with speed and the findings are of similar nature with a number of studies in the literature. Moreover, the findings of the research are substantiating Jodai and Tahriri (2011) and Nation's (2009) claim; the slower reading process is, the less comprehension is achieved.

The results of the first four questions are consistent and point to a persistent and meaningful advancement in terms of both speed and comprehension which has an evidential value that timed reading practices not only foster speed but also contribute to gains in comprehension or at least do not cause setbacks in terms of comprehension. Klauda and Guthrie (2008) claim that the relationship between reading speed and comprehension is interdependent. The researchers consider fluency as the combination of a number of components with the emphasis on speed and accuracy in the word level and explain their claim as either comprehension or fluency reinforces one another. Klauda and Guthrie's (2008) revelation has an explanatory nature for the present research as the results demonstrate an increase both in speed and comprehension. A synthesis of their claim and the results of the current study leads to the conclusion that timed reading practices cultivate reading speed and comprehension simultaneously.

The fifth research question was asked to find out if the learners who did not receive timed reading intervention improved their reading speed as they read the same reading texts during the intervention without any time constraints. The learners in the control group read as many text as the ones in the experimental group, nevertheless time did not happen to be a pressure in the former group. Even though they read on their own pace without any stress of time, the findings pointed out an increase in the learners' reading speed. According to the results of statistical analysis, the difference found between pre-test and post-test was also significant.

The sixth research question focused on how much improvement EFL learners in the control group showed in terms of speed. Paired sample t test showed that the difference was statistically significant and the group that started the experiment with 110.09 wpm reached to 153.09 wpm in post-test which corresponded to 43.00 wpm, in other words 39% wpm increase in speed. Despite not being exposed to timed reading intervention, the learners increased their speed and two reasons may be the cause of this advancement.

The first reason can be said to be the learners' status at the university. All the learners participated in this study was already enrolled in intermediate English classes in preparatory school in a state technical university in Turkey and this research was conducted in the course of academic year which means that all the participants were having English lessons for 24 hours a week and their proficiency level of English was supposed to reach to a certain level due to their studies. According to Linguistic Treshold Hypothesis, learners' proficiency level is a determiner in reading ability (Clarke, 1979). As a consequence of the intense language learning program that the learners were already attending, they were expected to improve all their skills. By all means, the improvement can be regarded as a result of their education and improved proficiency in the target language.

The second reason is related to the exposure of extra reading materials. The participants in this group read all the 15 passages without running against clock, and this extra reading

sessions might also influence the results. Stanovich (1986) explains the phenomenon of the more you read, the better you get as “Matthew Effect in Reading” (Stanovich, 1986, p.380). Actually, the implication of Stanovich (1986) is that better readers read more, consequently they improve their reading abilities one of which is reading speed. Considering the current study, the learners were given extra 15 texts in the course of 5-week intervention which may easily lead learners to boost their reading speed. Bell’s (2001) study was designed to compare the effects of extensive and intensive reading programs on learners’ reading speed and comprehension levels. The findings of Bell’s (2001) study pointed to reading speed improvement thanks to intensive reading program. Taking the 15 reading passages were done as in-class activity into consideration, these extra readings could be claimed to help learners improve their reading speed.

Revisiting timed reading studies in the literature, Chang (2010), Macalister (2010), Underwood et al. (2011), Tran and Nation (2014) and are researchers who carried out studies focusing on timed reading’s efficacy. The finding that the participants in the control group also increased their speed without timed reading intervention was also coincide with all these mentioned studies. These convergent results indicate that with or without timed reading practices, learners advance their reading speed. However, they cannot reach to a speed which can be gained thanks to timed reading practices.

The seventh research question was asked to find out if learners who did not receive timed reading intervention improved their comprehension. According to the results, the learners in the control group also increased their comprehension. However, the difference between their pre-test and post-test considering reading comprehension level was found statistically insignificant. It can be concluded by means of the findings that 15 texts implemented as in-class reading without time constraints were beneficial for learners to gain better comprehension despite making unimportant difference.

The eighth research question focused on how much EFL learners in the control group improved their comprehension levels. At the beginning of the study, the participants in the control group performed 18.48 comprehension score while their score improved 4% after the study and they reached to 19.15. Descriptive statistics showed 0.67 comprehension gain after reading implementation. There was a difference in numbers that was statistically unimportant. In consideration of the advancement even without timed reading instruction, a few reasons can be indicated.

The first reason, as mentioned in the explanation of the sixth research question as a reason lying behind the improvement of the control group in reading speed, the learners were already students who were actively attending 24 hours of English lessons a week which was a fact that surely influenced the learners' reading ability positively. The second reason is that the significant advancement in the group's reading speed might have contributed to comprehension. After all, a great number of researchers state how reading faster leads to better comprehension (Anderson, 1999; Atkins, 2010; Atkins, 2014; Chang, 2010; Chang, 2012; Chung & Nation, 2006; Crawford, 2008; Jensen, 1986; Rasinski, 2014; Stanovich, 1980; Stanovich, 1991; Walczyk et al. 1999)

Thirdly, even though the learners did not feel the pressure of time, they were aware of their participation in the research. Langer (1989) describes mindfulness as being aware of the actions and surroundings, correspondingly, comprehension requires mindful reading (Hook & Jones, 2002; Spargo, 1989). The learners were informed about the study to take their consent for participation despite keeping details for the sake of the study. By informing the learners about the study, their awareness was raised which might have resulted in more focused reading. This consciousness might have raised their concentration and motivation that could positively influence their results. Finally, exposure to more readings might have helped the learners to gain better comprehension (Klaeser, 1977; Krashen, 2004; Nuttall, 1996;

Stanovich, 1986). Exposing learners more texts benefits reading skills one of which is comprehension. During the study, learners had 15 extra readings which might have positively affected the learners' reading comprehension.

To conclude, when comprehension level is considered, even though there was a difference in numbers, it was not statistically significant. On the other hand, a meaningful difference was revealed considering speed. Although the reason of the fact that the learners improved their reading speed and comprehension without timed reading intervention cannot be deduced conclusively via the results of this research, several factors, such as learners continuing English education, the level of awareness, extra readings done in-class within the context of the study can be assumed to benefit learners considering the existing research in literature.

The ninth research question focused on the comparison of the groups from the point of reading speed. The findings of the study reported that both groups improved their reading speed significantly. The learners in the experimental group demonstrated 60.35 wpm gain and the control group's was 43.00 wpm. Despite both gains being significant within groups, the experimental group's improvement surpassed the control group's advancement by far. The learners in the former group had 20.35 wpm more increase than the latter group. The difference between the groups was statistically significant in terms of speed. The results of the groups individually or comparatively considering speed indicate that timed reading intervention ensures drastic changes in speed and helps learners to read faster.

Equivalent results have been achieved by a number of researchers. To begin with, Golam and Karim (2015) investigated the effects of timed reading on learners' speed and comprehension and timed reading intervention was found significantly effective especially on reading speed. Hamersly (2015) also explained how effective timed reading was in terms of improving reading speed by personal experience and research in the literature. Atkins (2010), Chang (2010), Chung and Nation (2006), Crawford (2008), Macalister (2010), Tran and

Nation (2014) and discussed the efficacy of timed reading in their studies and acquired compatible results in terms of timed reading's positive effect on speed.

The tenth research question focused on the comparison of groups in terms of reading comprehension. It was revealed that both groups improved their comprehension level during the research. However, within group analyses demonstrated that the experimental group made a statistically significant improvement while the gain of the control group was analysed as unimportant. On the other hand, when the two groups were compared via repeated measures of ANOVA, no significant difference was detected. Even though no statistically significant difference was detected in terms of comprehension, there was an obvious difference in numbers. Descriptive statistics pointed out that the experimental group's advancement in comprehension was 3% more than the control group's. No conclusive deductions can be made for the reason of the difference being insignificant, however, a few factors can be assumed to have an influence on the results.

The first factor that can be assumed to influence the result is time limitation. The time limitation of the study can be considered as a disruptive effect for the difference between two groups not being significant. Additionally, the frequency of the intervention being once a week and three readings in a row may be too low to make a significant difference. On the other hand, when each group was analysed independently, a significant difference was revealed between the experimental group's pre-test and post-test, while the same result was not obtained from the control group although these participants also advanced their comprehension. The improvement of both groups can be assumed to be the result of reading exposure. However, the significant difference retrieved from the experimental group itself points to the fact that timed reading intervention seems more helpful for learners to have a better comprehension than reading without restricted time.

The results reiterate the findings of Walczyk, et al. (1999) who designed a research to find out the effects of time limitation on readers and concluded that the best comprehension was obtained under mild time limitation. Despite having a different nature, the effect of time was examined in the mentioned study on three groups: without time limitation, with mild time limitation and with strict time limitation. The best results were achieved from the group with mild time limitation which was the same case in the current study as the participants were given a time limit, however, it was enough for them to finish the text without too much stress.

Chang (2010) conducted a similar study with the aim of revealing the effects of timed reading on learners' reading speed and comprehension. Similar inferences were attained, namely, there was an increase in both groups and the group that was exposed to timed reading intervention was found to gain more speed and comprehension in comparison with the control group; nevertheless, the difference found was insignificant both for comprehension and speed. Regardless of the differences between studies, it is clear from the results that timed reading activities integrated in reading sessions help learners to gain a higher speed and comprehension.

Tran and Nation (2014) also found out that speed reading instruction helped learners to gain speed without regression in their comprehension. Despite having differences in design, the two studies' results are in parallel and suggest that timed reading instruction is helpful for learners to gain speed besides comprehension or without backslides in comprehension.

The final question of the research examined the importance of timed reading in the area of teaching English as a foreign language. The results are important since improving reading skill, which is a complex process (Leipzig, 2001; Olson, 2003), in L2 is crucial for learners to improve their learning. The complex nature of reading consists of different elements, such as the type and level of the text, the reader's ability, and reading strategies (Anderson, 2003). Furthermore, a great number of researchers agree on the idea that fluency is a must to become

good readers (Anderson, 2003; Grabe & Stoller, 2011; LaBerge & Samuels, 1974; Mikulecky, 2008; Turkyilmaz, et al., 2014; Ates et al., 2014). Even though there is a highlight on the importance of fluency, researchers focus more on fluency in L1 (Grabe, 2009) which was a motivating fact to set the purpose of this study (Anderson 1999; Grabe & Stoller, 2011;).

Klaeser (1977) and Nuttall (1996) express the benefits of reading faster as helping learners to save time, stay focused on what they read, and enjoy reading with higher motivation so that they stay in “the virtuous circle of the good reader” (Nuttall, 1996, p. 127). Reading solely fast without comprehension does not fit to the description of reading. As Beers (2003) mentions; “They recognize most words automatically, read fluently, vary their reading rate, and “hear” the text as they read.” (Beers, 2003, p.34). Readers should comprehend what information is given via the text they read, otherwise, reading process turns into the act of decoding.

In the light of the literature, it can be concluded that increasing reading speed along with reading comprehension can make a drastic change in L2 reading success and also advances learners’ motivation for reading (Klaeser ,1977; Mikulecky, 1990; Nuttall, 1996; Walczyk et al., 1999). However, without learning useful ways to gain fluency, it can be hard for learners to figure out the importance of fluency (Mikulecky, 1990). In addition, Nation (2009) states that 250 wpm is an appropriate and achievable goal for L2 learners when reading a text without unknown vocabulary or grammar and he also adds that teachers must teach learners how to attain this objective. To Golam and Karim (2015), researchers who also found that timed reading can be of major help in terms of improving speed and comprehension, discuss that certain speed is required for best comprehension, however, because of learners’ low confidence, they should somehow be shown their abilities and instructed to achieve a certain level of reading speed and at this point, timed reading practices can be at great benefit.

Taking the claims of several mentioned researchers, the results of the present study demonstrate the efficacy of timed reading in terms of reading speed and comprehension, as the participants gained reading speed together with comprehension which is necessary for being a good reader. The results of the study reveal that integrating fluency based activities into reading lessons help learners to read faster and comprehend better and verify how timed reading affects learners' reading speed significantly and comprehension considerably. For these reasons, fluency based instruction should be included in reading sessions and learners should be taught ways to improve their fluency. Finding out the effectiveness of timed reading on speed and comprehension can raise awareness among language teachers and lead to orientations in reading sessions through fluency based activities.

In conclusion, this study presented the possible effects of timed reading intervention on L2 learners' reading speed and comprehension levels. The analyses included both within group and between groups comparisons and revealed the changes in reading speed and comprehension skills of the learners due to timed reading intervention. The comparisons showed that each participant improved his reading speed and fluency. The increase of the experimental group was considerably higher in comparison with the control group. The difference was statistically insignificant from the point of comprehension, on the other hand, there was a clear difference in descriptive analysis that is pointing to a higher comprehension level in the experimental group. The results demonstrated that timed reading practices have a positive influence on the participants' reading speed and comprehension skills, which is a fact that can encourage language teachers to implement reading instruction with fluency based practices and create a positive difference in L2 learners' reading skills.

5.2. Suggestions for Teaching EFL in Turkish Context

The findings of this study are consistent with the previous research on the effects of timed reading intervention on learners' reading speed and comprehension levels. Despite being

different in nature, all the studies to the researcher's knowledge have found timed reading intervention useful for improving reading speed together with comprehension, or at least without setbacks in comprehension.

The gains of timed reading practices were clearly revealed via the present study. The learners showed meaningful improvement in their reading speed and comprehension after the intervention. Even though between group analyses discovered insignificant difference in comprehension, descriptive statistics highlighted that learners that were exposed to timed reading improved their comprehension more in comparison with the other group.

Atkins's (2010) conclusions about timed reading instruction are also supportive for the present study even though the results of the mentioned study are found inconclusive. Atkins (2010) found out that timed reading practices effects differ according to the level and whether it is reading itself or time pressure that leads to improvement is not revealed. However, Atkins (2010) claims that integrating timed reading practices into reading instruction together with other fluency based reading activities can be useful for learners to improve their fluency, which is also supported via the findings of the present study.

To clarify the goals and scope of reading lessons, the researcher had personal communication with several lecturers working in foreign languages departments in various universities in Turkey and personally observed the materials that are used for reading instructions in several universities. The results of the researcher's personal communication and observation of reading materials clearly revealed a lack of fluency based activities even though achieving a certain level of fluency is listed as a certain goal of the lesson. As Mikulecky (1990) claims, useful ways of fluent reading should be taught for learners to reach a certain level of fluency. Regarding the significance of reading speed and comprehension to become a good reader and the efficacy of timed reading practices on improving speed along

with comprehension, timed reading practices might be regarded as a practical solution to fulfil this need.

One of the main aims of teaching reading is making learners skilful and fluent readers (Alexander & Jetton, 2000). To achieve this goal, teachers should consider integrating fluency based activities in their reading lessons. Timed reading practises have been revealed to be effective as a result of this study which reiterates a number of other studies on timed reading in literature. As the current study was carried out during the academic year, timed reading practices had to be squeezed into already prepared syllabus and into 5 weeks. At first, it looked hard to include these practices into a ready syllabus, however, when the implementation period started, the practices were found easy to do in class, furthermore, learners started to like the practices as they were different than the ones they always did. Keeping an eye on clock, time stress, not being able to turn back to text to answer the questions were all new for the students and made the implementation more interesting for them. Language teachers can easily include several timed reading activities in their lesson plans and help learners develop better fluency. Additionally, 5-week period is such a brief time to improve such a complex skill as reading, however, as the results show, timed reading practices made significant difference in both speed and comprehension. All the advantages of timed reading practices should encourage language teachers to include timed reading practices in reading instruction.

The scarcity of studies on the efficiency of timed reading practices may bear the assumption that language teachers are not aware of such practices or the importance of such practices. For this reason, also providing a more extensive education including the importance and efficacy of these practices on reading instruction can be considered in the process of teacher education. Raising prospective teachers' awareness about the significance of the

subject and helping them gain a distinct perspective related to reading instruction can obviously help improve the scope of reading lessons and raise skilful readers in L2.

Even though further study is needed to find out more about the effects of timed reading practices on reading speed and comprehension, it can be concluded that reading sessions including timed reading practices can raise learners' fluency fast and drastically especially from the point of speed. Besides, considering the mutual relationship of reading speed and comprehension, learners with a better speed tend to have a better comprehension, the first implication from this study is that including timed reading in an L2 reading class can be useful to help learners to become better readers in L2. In addition, as mentioned in the earlier chapters of the study, other fluency based practices can also be used together with timed reading to offer variety to learners and appeal to varied types of learners.

CHAPTER 6

Conclusion

An overview of the present study is rendered in this chapter by summarizing the scope of the study, the research questions, the findings and implications for improvements in the area of L2 reading applications and also for further studies concluded from the analyses of the study. Furthermore, the study's contributions to the field of teaching English as a foreign language and the place of timed reading intervention in reading sessions are discussed together with the listed limitations of the study.

6.1. An Overview of the Study

A considerable number of studies have been conducted on the components of reading fluency, its importance, its components and possible alterations on reading sessions to develop a better fluency. Mikulecky (1990) suggests that as there is a common belief among L2 readers that reading every word leads to better understanding and consequently causes L2 readers to read slowly and comprehend less, so L2 learners should be taught ways to read faster and comprehend better with a higher fluency. With the attempt to improve reading fluency, different types of fluency based reading practices, such as timed reading and repeated reading have been designed.

Taking the importance of reading fluency and the relationship between reading speed and comprehension into account, finding out the effectiveness of timed reading practices from the points of speed and comprehension improvement was aimed by the present study. Even though there are dozens of studies focusing on L1 reading fluency, not as many studies are designed on improving L2 reading fluency. Moreover, there is a scarcity of studies that focus on the effects of timed reading practices on L2 learners' reading speed and comprehension, also no studies have been found related to timed reading conducted in Turkish EFL context in the related literature to the researcher's knowledge. Hence, the purpose of the study was set to

find out the effects of timed reading on Turkish L2 learners and contribute the results to the literature.

Ten research questions were asked to find out the efficacy of timed reading in the light of revised literature which were as follows:

1. Do EFL learners who receive timed reading intervention improve their reading speed during the study?
2. How many words per minute do EFL learners who receive timed reading intervention increase their speed during the study?
3. Do EFL learners who receive timed reading intervention improve their comprehension skills during the study?
4. To what extent do EFL learners who receive timed reading intervention improve their comprehension skills during the study?
5. Do EFL learners who do not receive timed reading intervention improve their reading speed during the study?
6. To what extent do EFL learners who do not receive timed reading intervention improve their reading speed during the study?
7. Do EFL learners who do not receive a timed reading intervention improve their comprehension skills during the study?
8. To what extent do EFL learners who do not receive timed reading intervention improve their comprehension skills during the study?
9. Are there any significant differences between the experimental group and the control group in terms of reading speed?
10. Are there any significant differences between the experimental group and the control group in terms of reading comprehension?

An experimental and a control group were included in the study with the purpose of comparison to get more solid results and finding out differences between groups. Including a control group improved the results and supported the results of similar studies which revealed insignificant statistical difference without a control group.

Timed reading intervention was applied in five weeks. The pre-test was applied before the intervention and the post-test was applied after the intervention. The total duration of timed reading intervention, pre-test and post-test took seven weeks in total. Throughout the intervention, each group was given three reading texts and comprehension questions consecutively. Even though the results focused more on the effects of timed reading practices, they also shed light onto how effective extra readings can be regarding the results of the control group.

First, the study focused on the experimental group's improvement via timed reading intervention and within group analyses showed that participants in the experimental group improved both their reading speed and their comprehension levels significantly. Descriptive statistics revealed that learners in this group improved their reading speed 44% and comprehension 7% after the intervention. Both differences were statistically significant and can be considered as a proof for the effectiveness of timed reading practices on L2 learners' reading speed and reading comprehension levels.

After analysing experimental group, the same within group analyses were conducted to reveal the improvement of control group. The results pointed to a significant difference in reading speed while insignificant difference was found from the point of reading comprehension. Even though the learners did not receive a timed reading intervention, they improved their reading speed remarkably. According to descriptive statistics, the learners improved their speed 39% while the improvement was 4% in comprehension.

Analyses comparing the results of both groups indicated significant difference between the groups' reading speed, the participants in the experimental group read significantly faster than the ones in control group after the intervention. However, there was no significant difference considering comprehension level.

On the one hand, it can be indicated from the results that learners' reading speed and comprehension improved significantly via timed reading intervention. On the other hand, the difference was insignificant in terms of reading comprehension when the two groups were compared.

Grellet (1981) differentiates reading comprehension and reading speed exercises yet it is also pointed out that slow readers struggle with the text; therefore, they tend to be discouraged easily with a lower comprehension ability. Grellet (1981) also claims that readers should *"reach a certain reading speed in order to read efficiently."* (Grellet, 1981, p. 10). There is a direct link given between reading speed and comprehension. Nevertheless, reading fast without comprehension is also considered as incompetent reading (Nuttall, 1996). When the mutual relationship between speed and comprehension is taken into consideration, the results of the present study reveal that timed reading intervention helps learners to become competent readers by improving both speed and comprehension.

Descriptive statistics also pointed out a gain of comprehension in control group which means even without timed reading intervention, learners increased their comprehension even if only slightly. The participants in this group did not have timed reading intervention, however, they were also exposed to the same reading materials utilized in the experimental group. Reading exposure may be the reason for this slight difference in reading comprehension. Additionally, the fact that all the participants were enrolled to the preparatory school as intermediate level English learners, all kinds of increase in their L2 abilities were

expected as a result of L2 education. Further studies are needed to find out whether extra exposure to reading or the language program made the difference in reading comprehension.

The reason of the insignificant difference considering comprehension between groups can be explained with the limitations of the study. The present study was designed to cover 5-weeks for the intervention, and only 15 texts were used to investigate the effects of the intervention. As the difference in speed is meaningful, it can be claimed that more reading texts utilized in a longer period of time can make a bigger change in comprehension. However, further research is needed to prove the claim true.

Considering similar studies in the literature and the current study, the results pointing to the improvement in reading speed and comprehension are consistent.

Underwood et al. (2011) also questioned the effectiveness of speed reading intervention on reading speed and comprehension. The results demonstrated significant difference in within group comprehension analyses, namely both groups improved their comprehension significantly, however, insignificant difference was gained in between group analyses. Besides, from the point of reading speed, the results of the study revealed that learners in the experimental group improved their reading speed without backsliding in their comprehension. Comparing both studies despite the differences in design, it can be predicated that timed reading intervention works successfully to improve learners reading speed and comprehension.

Atkins (2010) focused on timed reading as a means of improving reading fluency. The results of the mentioned study revealed slight differences between groups which Atkins (2010) interpreted as reading without time can be enough for reading fluency improvement. Even though the results contradict with the present study, Atkins (2010) also concluded that timed reading can be integrated in reading lessons together with other fluency based reading practices to improve reading fluency due to its potential and being easy in implementation.

The results being non-conclusive did not override the positive effects of timed reading in Atkins's opinion (2010).

All in all, the analyses and the results of the current study point to the fact that utilizing timed reading practices for reading fluency can be helpful for learners to improve their reading speed and comprehension. Even a short, 5-week intervention has been proven to be efficient in creating a difference in learners' reading fluency. The non-negligible highlight on the importance of fluency in reading lays emphasis on the need for fluency based practices in reading sessions. The results of the study prove timed reading practices as a viable alternative to be integrated in reading sessions with the purpose of improving fluency.

6.2. Limitations of the Study and Suggestions for Further Studies

The participants from whom the data gathered in the scope of this study is limited to 74 learners and in the process of statistical analysis, 10 of the participants were excluded as they were detected as outliers. This leads to the fact that the study is limited to a small group of Turkish L2 learners of English. Besides, limited number of participants make it hard to generalize the results to all L2 learners in different contexts. Furthermore, all the participants were intermediate level learners of English. For this reason, whether similar results would be gathered from learners of English in different levels or not cannot be concluded from the study.

Secondly, no personal difference was taken into consideration in the scope of the study. Variables such as gender, age, socio-economic background, aptitude, IQ levels, motivation, learner styles, or interests were not taken into consideration in this study. It can be suggested for further studies to cover one or more of these variables and find out their effects in timed reading practices.

Another limitation of the study is time. The intervention was applied in 5 weeks and the pre-test and post-test was applied before and after the intervention. All these procedures took

7 weeks in total. The time being limited to 7 weeks was because of the fact that the education system in the preparatory school where the study was carried out leaves 7 weeks per level and then, the learners take an exam either to continue in a higher-level class or to repeat the level they have already completed. With this system, the learners are mixed in every 7 weeks which makes it impossible to trace the participants in different classes and continue the intervention.

The fourth limitation of the study is that only 15 reading texts were utilized due to the limited time and the extensiveness of the program that the participants were enrolled. It was not easy to integrate timed reading practices into the participants lessons as they already had a syllabus determined by the lecturers and the head of the department. For these reasons, the number of texts to be utilized were decided to be 15, and applied consecutively once a week in one lesson. The frequency of the intervention and the number of texts can influence the results. Different number of texts can be utilized in a different frequency to reveal the effect of these variables in further studies.

Last but not least, no pilot study was conducted before the actual intervention to find out any detrimental variables. Conducting a pilot study beforehand would at least help to eliminate the reading texts according to common interest and background knowledge among learners in the same age range. For further studies, a pilot study would be helpful to foresee possible disruptive variables and choose texts according to interests of learners which can be motivating for reading.

6.3. Concluding Remarks

It can be concluded that timed reading practices can be integrated in L2 reading instruction in reading classrooms and help learners raise their reading fluency. With supportive implications of similar studies in the literature, timed reading has been proven to be useful especially in terms of speed. However, as it is also implied in the related literature, the raise in

speed does not cause relapses in comprehension. On the contrary, it helps learners to gain comprehension or does not cause any setbacks.

There are several ways that this study has contributed to research and practice. To begin with, it has served to the field of EFL teaching research and demonstrated findings that can be utilized as theoretical basis. Revealing the efficiency of timed reading intervention might help L2 teachers to revise reading instruction in class and provide insights for further studies on fluency based reading instruction in L2.

Second, despite the clearly highlighted importance of reading fluency, not much research has been conducted on timed reading practices which aims to improve learners' fluency and no research has been carried out to find out the effects of timed reading practices in Turkish EFL learning and teaching environment to the knowledge of the researcher. Consequently, the findings of the present study elucidate the effectiveness of timed reading on Turkish learners of English as a foreign language and contribute the results gained in a different learning context to the literature of EFL learning and teaching.

Third, to raise awareness among language teachers about the importance of reading fluency, fluency based practices, and the significance of timed reading implementation, teaching reading classes in education faculties can be revised and extended in a way that puts more emphasis on fluency and improving fluency. Moreover, more research should be encouraged to investigate timed reading together with other fluency based practices to compare the results and get more conclusive results about the effects.

Finally, albeit being limited in the context of participants, implementation time and study environment, this research might draw attention to the importance of reading fluency and the efficiency of fluency based instruction among L2 teachers of English, besides raising awareness. Further research is needed to confirm and compare the findings of the study, though.

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Co.



Appendixes

Appendix 1

Date:

Name:

Duration:

A Woman Who Loves Boxing

Her father, a famous boxer named Muhammed Ali, called himself the greatest. He really may have been the greatest boxer of all time. While it may be expected that his daughter, Laila, might have some interest in the sport of boxing, she didn't start out that way.

Laila Ali was born in Miami Beach, Florida, on December 30, 1977. She was the daughter of two famous people. Her mother was a model, Veronica Porche Anderson, and her father was Muhammed Ali. When Laila was 9 years old, her parents were divorced, and she moved with her mother to California. Laila had a difficult time as a teenager. She was a defiant girl. When she was 16, she was caught shoplifting. Luckily, Laila did not have to go to jail for this crime, but she continued to get into trouble. Eventually, she realized that she did not want to end up in jail. So Leila changed her life and went to college. After collage, she started her own business, a nail salon.

One day, Laila saw a boxing match on TV and was thrilled. Interestingly enough, it was not one of her father's matches. It was a women's boxing match. From that moment, she realized that this was what she wanted to do. She wanted to become a professional boxer. She sold her business and began to rigorous training needed for the sport. At the age of 21, Laila had her boxing debut. After only 31 seconds in the first round, she knocked out her opponent and won the match. Laila won her next 7 matches by knockout too, which earned her a chance to face the champion, Cendra Lendhart. Laila was not able to knock Lendhart out, but she still won- the judges voted unanimously that she was the winner.

It wasn't long before people everywhere took notice. They compared Laila to her famous father. Suddenly there was pressure to live up to her famous name. But the pressure did not bother Laila. She was proud of her father, and she has raised to be equally proud of her own accomplishments. She won and defended the title of Super Middleweight Champion. Laila later won the Light Heavyweight title. She earned the nick name of "She Bee Stingin," which reminded people of her father and how he used to brag. Her father was graceful, like a butterfly, but his punch was powerful, like the sting of a bee, so one of his favorite things to say was, "Float like a butterfly, sting like a bee." Laila also wrote a book based on her own life, called Reach, where she encouraged other young women to reach for their dreams. She also started the Reach Foundation to help disadvantaged young women go to school.

Like her father, Laila Ali rose quickly to become one of the greatest in her sport. She reached for and achieved an amazing dream. And, she accomplished these things in a sport that is usually associated with men. But, thanks to Laila's success, that image may change.

Date:

Name:

Score:

A Woman Who Loves Boxing

Questions

1. **What is this article about?**
 - a. How Muhammed Ali affected his daughter
 - b. Laila Ali's biography
 - c. Laila Ali's problems during her puberty
2. **What happened when Laila Ali was 9 years old?**
 - a. Her parents were divorced
 - b. She became a boxer
 - c. She went to jail
3. **What crime did Laila commit when she was a teenager?**
 - a. Murder
 - b. Shoplifting
 - c. Robbery
4. **What was Laila Ali's first business?**
 - a. A boxing gym
 - b. A nail salon
 - c. A modelling agency
5. **What first interested Laila Ali in a boxing career?**
 - a. She saw one of her father's boxing matches
 - b. She saw a women's boxing match
 - c. She had a fight with another girl
6. **How did the pressure of success affect Laila Ali?**
 - a. It made her proud of her father
 - b. It didn't bother her
 - c. It caused her to lose some matches
7. **Why was Laila Ali called "She Bee Stingin"?**
 - a. Her father gave her that nick name
 - b. She wanted people to remember her father
 - c. Like her father, she "stings like a bee" in the boxing ring
8. **Who is the Reach Foundation designed to help?**
 - a. Young women who are hurt in boxing matches
 - b. Young women who want to be boxers
 - c. Young women who want to go to school

Appendix 2

Date:

Name:

Duration:

The Death of Karen Silkwood

It was dark. Nobody saw the accident. The small white car was found on its side by the bridge. A river ran underneath the road there, and the car was lying next to bridge wall, below the road. Inside the car was a dead woman. Her name was Karen Silkwood, and she was 28 years old. It was November 13, 1974.

How did the car come off the road? Why was it on the wrong side of the road? Why was it so far from the road? There was nothing wrong with the car. Karen Silkwood was a good driver. Everybody knew that.

The police thought that there was an easy answer to these questions. Karen was tired after a long day, so she fell asleep while she was driving. It could happen to anyone very easily. They took the car to a garage, and they took Karen's body to a hospital.

But some people were not happy about the accident: first of all, her boyfriend, Drew Stephens; also a newspaper journalist from *The New York Times*; and a union official from Washington. These three men were waiting for Karen on the night of the accident. She was bringing them some papers and some photographs in a big brown envelope. The papers were very important. The men were waiting for Karen in a hotel room a few miles from the accident. But she never arrived. When they heard about the accident, the men looked for the brown envelope at once. They looked for it inside the white car. They looked for it at the hospital and at the police station. The next morning they looked all around the wall and in the river, but they never found it. Nobody ever found that brown envelope.

The story of Karen and her brown envelope began in 1972 when she took a new job at a nuclear factory in Oklahoma. Before that, she worked as a secretary, but in 1972 she was really tired of a secretary's life. She looked in the newspaper and saw that there was a job at the nuclear factory. The pay was much better than a secretary's pay, and the work was more interesting. She went to see Mr. Bailey, the manager of the factory, and she was surprised and happy when he gave her the job immediately. He asked Karen to start work the next day.

On her first day at the factory, Karen learned a lot. Mr. Bailey told her that she had to wear a special white coat, some special shoes, and a white hat.

"These clothes protect you from radioactive dust," he said. "There isn't really any danger, of course. Everything is safe here. We check everything all the time."

"I see," said Karen.

"You need an identity card to get into the factory every morning. Just give me a photograph of you, and I'll give you a card. A pretty picture of a pretty girl."

He smiled. Karen didn't like that smile.

“He thinks I am stupid,” she thought. “Why do men always think that pretty girls are stupid?”

He was still speaking.

“Now I’ll call you Mrs. Phillips. She’ll take you around the factory and show you your laboratory. The manager will explain the job to you. Don’t worry- it is very easy.”

He smiled his thin smile again.

The door opened and Mrs. Phillips came in. She was about 40 years old and a little fat. She looked afraid.

“You wanted me, Mr.Bailey?”

“Yes, Susan. This is Karen Silkwood. She is going to work with you in your laboratory. Could you take her around the factory and tell her about the work?”

“Oh, I see. Of course, Mr.Bailey. Please follow me, Miss. Silkwood.”

When the office door closed, Mrs. Phillips smiled at Karen and said,

“That was lucky! Usually if he calls me, he wants to shout at me about something. Please call me Susan. Can I call you Karen?”

“Of course,” said Karen.

They walked down a long corridor with heavy doors on both sides. Susan opened one of the doors.

“This is our laboratory.”

Karen saw six or seven people in the room. They were all wearing white gloves, and their hands were inside a big glass box. There were holes in the side of the box- just big enough for hands. Everyone looked at Karen.

“What is in the box?” Karen asked Susan.

Everyone laughed.

“Not chocolate,” said one worker.

“Or beer,” said another.

“Don’t listen to them,” said Susan. “It is fuel rods and uranium. We put uranium into the fuel rods. That’s why you must always wear your gloves. And when you leave the laboratory, always remember to take off your gloves and check your hands in front of the scanner.”

She showed Karen the scanner, which was near the door.

“If there is any radioactive dust on your hands, the scanner knows at once. And alarm rings all over the factory.”

“And when the alarm rings, the party begins,” said one man.

“Party?” Karen asked.

“You can take off all your clothes and have a swim...with lots of water.”

“He means they wash you in a shower,” said Susan. “It does not happen very often.”

Karen went home happy at the end of the day. She did not think that the work was difficult. And the money was good...very good.



Date:

Name:

Score:

THE DEATH OF KAREN SILKWOOD**Questions**

- 1. What is this story about?**
 - a. It is about Karen Silkwood's mysterious job and mysterious death
 - b. It is about Karen Silkwood's sophisticated personality
 - c. It is about Karen Silkwood's dark secrets

- 2. What was Karen Silkwood's first job?**
 - a. She was a nurse
 - b. She was a teacher
 - c. She was a secretary

- 3. What did the police think about the reason of the accident?**
 - a. Karen Silkwood was drunk
 - b. Karen Silkwood was driving too fast
 - c. Karen Silkwood fell asleep after a long, tiring day

- 4. What were the three men who were waiting for Karen Silkwood looking for after the accident?**
 - a. a brown envelope
 - b. a yellow scarf
 - c. money

- 5. When did this story happen?**
 - a. in the 80s
 - b. in the 90s
 - c. in the 70s

- 6. How did Karen Silkwood find the job in the factory?**
 - a. She saw it in the newspaper
 - b. She saw it on billboards
 - c. She found it on the net.

- 7. What would happen if Karen Silkwood got radioactive dust on her hands?**
 - a. She would be fired immediately
 - b. She would die from radioactive poisoning
 - c. An alarm would ring all over the factory and they would wash Karen Silkwood in a shower

- 8. What is NOT mentioned in this story?**
 - a. Information about Karen's life before the accident
 - b. A description of Karen's first day at a new job
 - c. The reason why the accident happened

- 9. What didn't Karen like about her new boss?**
 - a. His hair
 - b. His thin smile
 - c. His attitude

10. What CANNOT be inferred from this story?

- a. Karen had a dangerous and mysterious job
- b. Karen's death could not be solved
- c. Karen worked hard all her life



Appendix 3

Date:

Name:

Duration:

The Thames Murderer

The sun was setting over London in red and orange flames that made the rows of old buildings blush and glow. It had been another hot day in one of the longest heat waves the city had seen in the last decade. Now the streets were busy with after-work traffic; the drivers were trying to make it home to their cool, shady lawns as quickly as possible. The alleys were filled with pedestrians who were looking forward to a pleasant supper in one of London's many restaurants, coffee shops or fast-food places. Others were walking their dogs along the River Thames, now that the temperature had cooled down a little. Jennifer Clearwater walked along the riverbank, dreaming about her trip to Bermuda. Was there anything she had forgotten to put on her list of "Things To Put In The Suitcase"? Jeans, T-shirts, shorts, sandals, Jeffrey's bathing trunks, her own bathing suit... oh yes, and that pretty little bikini she had recently bought at "Gray's". It had pink and white stripes. "You look like a candy cane - sweet enough to eat," Jeffrey had remarked dryly when she had shown off her new two-piece bathing suit to him.

She could hardly wait to get on that airplane with her husband, whom she still adored even after seven years of happy marriage. First she glanced at her watch, then she looked for Polly, their poodle, who had disappeared in the bushes by the water five minutes ago. "Polly," she called. "Polly, come on, we've got to go now!"

No sight nor sound of Polly.

"Polly!" Jennifer called again. "Polly, come back, will you? Where are you, POLLY?!"

Suddenly she heard a faint bark behind her. It seemed to come from the river's edge. She stopped and turned round, walked back a few steps and listened. Yes, that definitely was Polly's high-pitched bark. "Yap! Yap! Yap!" She sounded excited and upset.

Jennifer pushed the twigs aside and ducked right through the hedges along the river, until she saw the water shimmering in the last sun rays of the day. "Polly!" she cried. The poodle responded with a series of excited barks from somewhere round the next bend.

The young woman walked hastily round the bend and saw her dog growl at something that looked like a long white branch floating in the water. No, it had to be something like a thick white pole because blue fabric, maybe a flag or tent or something else, was attached to it. This was what Polly was growling at - or rather pulling at.

"Polly! Come here! Let go of it, will you? We've got to go!"

The dog let go of the blue fabric but did not move from her spot. Instead she started on another series of barks.

"Polly! Leave that thing alone, will you? Come on, be a good doggy! We've got to go home to Daddy!"

Jennifer moved closer to put Polly on the lead and saw something that looked like a mop of wet black hair.

Then she froze. Oh my God, she thought. OH NO. It can't be! It couldn't... could it?

It was. It was another one of the Thames Murderer's victims. It was the body of a dead woman whose hair had got tangled in a bush. She was wearing a dress as blue as the sky.

Oh my God, Jennifer thought.

"Help!" she screamed. "Help! Murder! HELP!"

Then she grabbed Polly and ran back to civilisation to notify the police.

Shortly after six-thirty p.m. Inspector Hudson put down the receiver with a sigh. He had been expecting that phone call - in fact, he had been wondering for the past month or so when they would give up and assign him to the Thames Murder Case. Now he had both of them. And he didn't like it. No, sir, he didn't like it one bit.

Because he had secretly been following up on Scotland Yard's investigations and felt that the murders of two beautiful young women, found drifting in the river, were tricky cases. Nothing linked the victims to each other, as far as he knew. The murderer seemed to pick them randomly in lonely parks after dark. They seemed to have nothing in common, except that the second woman had been found exactly four weeks after the first one. About a week after the first murder, a note had been sent to Scotland Yard, mocking their failure to find the murderer and signed "Jack the Skipper". Along with the letter, he had also sent the belt that belonged to the victim's dress. When the body was examined, it was found that the first victim had been strangled with that very belt.

What a horrible case, James Hudson thought.

There was a knock on his door.

"Come in," he called.

His secretary entered with a thick folder. "The Thames Murder Case, sir - they just brought it over."

"Thanks, I've been waiting for that." Eagerly he took the heavy folder from her and leafed through it until he found the note the Yard had received one week after the first murder. It was handwritten in capital letters.

"Will that be all, sir?" she asked. "Because if you don't need me anymore, I would like to finish for the day. It's almost seven o'clock." "What? Oh - yes, thank you," he answered without paying attention. His thoughts were on the note. The secretary shrugged and left, shutting the door behind her.

"Still fumbling in the dark, aren't you?" the note read. "You shouldn't be - it was bright enough when I strangled the poor lamb with this pretty beige belt, haha!"

Despite his many years of experience a cold shiver ran down his spine. He sensed he was about to deal with a very smart and evil mind and wondered if "Jack the Skipper" would again send the murder weapon together with another note.

On his way home Hudson could not stop thinking about the mocking note. His many years of dealing with all kinds of criminals told him that there was a hidden meaning between the lines. The note was too short for someone who wasted words. Why did the sender point out that it had been "bright" when he had strangled the woman? And what did he want to say with the name "Skipper"? Was the man they were looking for a sailor?

The inspector was so caught up in his thoughts that he almost over-looked an old woman crossing the street. He frantically slammed on the brakes and smiled an apology to the little old lady who was furiously shaking her umbrella at him.

"Get a grip on yourself, old man!" he told himself while wiping the sweat off his forehead. "Don't get too caught up in the case. You have to keep cool to find the bastard!"

When James Hudson finally got home at nine o'clock, he found Miss Paddington - his loyal housekeeper, cook, budget manager and drill sergeant - in the kitchen. She was busy scraping something black and burned out of a baking tray. The whole house smelled as if it had been set on fire.

"Oh my," she said nervously when she saw the inspector. "I'm afraid I burned our supper."

"What is it?" he wanted to know. "Or rather - what WAS it?"

"Your favourite meal - my homemade pork pie," she mumbled without looking at him, scraping away furiously. "I'm so sorry but today just isn't my day! I didn't get any sleep last night. I tossed and turned and stayed awake all night - and today I'm completely useless!"

"You're never useless," Hudson replied politely, even though his stomach was growling hungrily, and right now he would have given anything for one of Miss Paddington's delicious pork pies.

"You're too kind, Inspector. But it's always the same when there is a full moon. I tried a cup of warm milk, and it didn't work. Then I even tried this special meditation that is supposed to make you tired no matter what. Oh yes, it made me tired alright! But I still couldn't fall asleep. Now I'm just a tired wreck."

"What did you just say?" the inspector asked absent-mindedly.

"I said I'm a tired wreck."

"No, I mean before that - did you say something about a 'full moon'?" "Oh yes, the full moon! We had a full moon last night. Didn't you notice?"

Indeed Hudson, whose body did not care whether the moon was full or not, hadn't noticed. But now he remembered something.

"So last night was rather bright, wasn't it?" he inquired.

Miss Paddington looked at him as if she thought that his question was not too bright. "Yes, of course, Inspector. There were no clouds in the sky."

Hudson forgot his hungry stomach when something dawned on him. "Why - of course!" he exclaimed. "Last night we had a full moon! That's what he meant with 'bright'! Miss Paddington, you're simply brilliant!"



Date:

Name:

Score:

The Thames Murderer

Questions

- 1. What time of the day does the story begin?**
 - a. early in the morning
 - b. around midnight
 - c. in the evening

- 2. Who was Jennifer Clearwater going on a trip to Bermuda with?**
 - a. with her husband
 - b. with her dog
 - c. alone

- 3. What did Jennifer see on the river?**
 - a. the body of a dead woman
 - b. a box filled with flowers
 - c. a dirty beige hat

- 4. Who is “Jack the Skipper”?**
 - a. The housekeeper of inspector Hudson
 - b. The secretary of inspector Hudson
 - c. The Thames Murderer

- 5. What did the murderer send to the Yard?**
 - a. his gloves
 - b. a mocking note
 - c. some of his victim’s hair

- 6. Why was inspector Hudson’s housekeeper sorry when he got home?**
 - a. Because she burnt their supper
 - b. Because she heard about the murder
 - c. Because she was scared of being alone at home

- 7. Why had inspector Hudson’s housekeeper had a sleepless night?**
 - a. Because of their noisy neighbors
 - b. Because of the weather
 - c. Because of the full moon

- 8. What did the murderer meant with “bright”?**
 - a. the sun
 - b. the full moon
 - c. the lights on the river

Öz Geçmiş

Doğum Yeri ve Yılı : Balıkesir – 1988

Öğr. Gördüğü Kurumlar	Başlama Yılı	Bitirme Yılı	Kurum Adı
Lise	2002	2006	Muzaffer Çil Anadolu Lisesi
Lisans	2006	2010	Anadolu Üniversitesi
Yüksek Lisans	2012	2013	Dokuz Eylül Üniversitesi
	2013	-----	Uludağ Üniversitesi

Bildiği Yabancı Diller ve

Düzeyi : İngilizce – Advanced
İspanyolca – A2

Çalıştığı Kurumlar	Başlama ve Ayrılma	Kurum Adı
	1. 2012-2013	Dokuz Eylül Üniversitesi
	2. 2013-2014	Uludağ Üniversitesi
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Yurt İçi ve Yurt Dışında

Katıldığı Projeler :

12.08.2015 – 12.08.2016: “Yabancı dil öğretiminde eğitsel ve otantik film materyalleri ile öğrencilerin dil, kültür ve medya yetisinin geliştirilmesi.” BAP Altyapı Projesi ID: AYP (E)- 2015-13, Yardımcı Araştırmacı.

Katıldığı Yurtiçi ve Yurtdışı

Bilimsel Toplantılar :

Armağan, K. S., & Genç, Z. S. (2013). “Speech of Men and Women: Comparison of Gender Differences in Turkish and English Plays”, ULEAD 2013 Annual Congress: ICRE Multi Pragmatic Transformative Research in Education: Challenges and Opportunities, Nevşehir / Turkey

Armağan, K. S. (2013). “A Comparison of Reading Speed and Comprehension Level”, 9th International METU Postgraduate Conference on Linguistics and Language Teaching, Ankara / Turkey.

Genç, Z. S., & Armağan, K. S. (2016). “Understanding Gender Differences in the Use of Turkish and English Languages”, The 9th International ELT Research Conference Interdisciplinary Approaches: beyond the Borders of ELT Methodology”. Çanakkale / Turkey

Diđer Profesyonel Etkinlikler:

1. 2013 Summer English Language Teaching Institute, Uludag University, Bursa
2. 2014 Innovations in Pre-service Education: The Teaching Practicum, Symposium, Divan Otel, Ankara



ULUDAĞ ÜNİVERSİTESİ

TEZ ÇOĞALTMA VE ELEKTRONİK YAYIMLAMA İZİN FORMU

Yazar Adı Soyadı	Kıymet Selin ARMAĞAN
Tez Adı	Effects of Timed Reading on EFL Learners' Reading Speed and Comprehension Level
Enstitü	Eğitim Bilimleri Enstitüsü
Anabilim Dalı	Yabancı Diller Eğitimi Anabilim Dalı
Tez Türü	Yüksek Lisans Tezi
Tez Danışman(lar)ı	Doç. Dr. Zübeyde Sinem GENÇ
Çoğaltma (Fotokopi Çekim) izni	<input checked="" type="checkbox"/> Tezimden fotokopi çekilmesine izin veriyorum <input type="checkbox"/> Tezimin sadece içindekiler, özet, kaynakça ve içeriğinin % 10 bölümünün fotokopi çekilmesine izin veriyorum <input type="checkbox"/> Tezimden fotokopi çekilmesine izin vermiyorum
Yayımlama izni	<input checked="" type="checkbox"/> Tezimin elektronik ortamda yayımlanmasına izin Veriyorum

Hazırlamış olduğum tezimin belirttiğim hususlar dikkate alınarak, fikri mülkiyet haklarım saklı kalmak üzere Uludağ Üniversitesi Kütüphane ve Dokümantasyon Daire Başkanlığı tarafından hizmete sunulmasına izin verdiğimi beyan ederim.

Tarih : 20.06.2017

İmza : *K. Armağan*