

Developing L2 Reading Fluency

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Abstract

Fluency is an often-neglected component in the second language and foreign language reading classrooms with many teachers dismissing it in favor of approaches to developing overall reading comprehension instead. In recent years, however, research has shed light on the importance of developing reading fluency for language learners as it helps promote faster reading rates, better comprehension, vocabulary growth, and automatic word recognition, among other benefits. At present, approaches to reading fluency development include extensive reading, timed reading, and repeated reading. This paper looks to investigate and synthesize recent studies on these approaches to show how they improve reading fluency. Findings of many of these studies indicate that these approaches can be beneficial to learners' fluency development by helping them improve reading rates, which can potentially lead to better comprehension. While these findings show that these approaches should be incorporated in the L2 reading classroom as a means of improving reading rate, research on this subject remains scarce, and results on how well it impacts comprehension is not consistent across the studies. This suggests that these approaches are beneficial for learners' reading development, however, this subject deserves more research in the future.

Key Terms: Reading fluency, extensive reading, repeated reading, timed reading, reading rate, words per minute (WPM), comprehension

Introduction

Reading in one's second language can prove to be a difficult task for many language learners. One of the difficulties that learners face is slow reading rates, which indicates that they are reading word by word as a result of underdeveloped low-level processes in reading such as automatic word recognition (e.g., Chang, 2010; Gorsuch & Taguchi, 2008; Grabe, 2009; Tabata-Sandom, 2017). In order for learners of language to become successful readers, they must become fluent readers. Grabe (2009) writes, "fluency is the ability to read rapidly with ease and accuracy" (p. 291). The importance of reading fluency cannot be emphasized enough, as it is even accepted as one of the five essential elements of reading instruction (Yamashita, 2010, p. 264). Despite acknowledgment by many that reading fluency is important, most research has remained focused on studies involving first language (L1) reading, with fewer resources being dedicated to the second language (L2). At present, there have been some studies that have looked at the development of L2 reading fluency using extensive reading (ER), repeated reading (RR), and timed reading (TR) with results showing improvement in L2 fluency by measurements of reading rate. Despite empirical evidence showing that reading fluency must be taught to L2 readers to become successful readers, research remains scarce, and teachers are reluctant to teach fluency in their classes. In this review of literature, I will define L2 reading fluency, and present the findings of research on ER, RR, and TR for improving L2 reading fluency which justify its importance for L2 reading development.

What is Reading Fluency?

Reading fluency goes by many different definitions. According to Wolf and Katzir-Cohen (2001), the available research on fluency is consistent with the views of LaBerge and Samuels (1974) and Carver (1997) as meaning a “level of reading competence at which textual material can be effortlessly, smoothly, and automatically understood” (p. 218). Samuels (2006 as cited in Hudson, Pullen, Lane, & Torgesen, 2009) suggests that reading fluency is the act of decoding while comprehending at the same time with rate, accuracy, and prosody as indicators (p. 5). In Rasinski’s view (2014), fluency is the link between automaticity in word-recognition and comprehension. According to Hudson et al. (2009), numerous elements make up reading fluency such as sight word automaticity, or automatic word recognition, decoding fluency, orthographic knowledge, and vocabulary knowledge among others. Looking at the literature, we can see many definitions deal with many similar concepts such as automaticity. Many researchers also agree that there is a relationship between fluency and comprehension, but there are some disagreements on that relationship (e.g., Grabe, 2010; Hudson et al., 2009; Rasinski, 2014; Samuels, 2006; Wolf & Katzir-Cohen, 2001).

I feel that the explanation provided by Grabe (2009) best defines reading fluency as it encompasses several of the components mentioned throughout the literature as well as connects fluency to comprehension. Grabe writes that reading fluency is “the ability to read rapidly with ease and accuracy, and to read with appropriate expression and phrasing. It involves a long incremental process and text comprehension as the expected outcome” (p. 291). In this definition, following Kuhn and Stahl (2003), Grabe includes the three subprocesses of fluency--automaticity, accuracy, and rate--while also including a possible fourth compo-

ment in prosodic structuring. As I previously described, automaticity is a concept that appears often in the literature on fluency. To clarify what that means, Grabe writes that automaticity is a process that is “rapid, relatively resource-free, not subject to interference, unconscious, and hard to suppress” (p. 291). This is something that fluent L1 readers are capable of. They can read and recognize almost every word automatically. Accuracy is another concept that needs some explanation. Grabe explains that automatic word recognition should not only be automatic and rapid, but also accurate and complete. In other words, reading fluency entails accurate word decoding skills. The third subprocess is overall reading rate, which is measured in words per minute (WPM). In Grabe’s view, this ability connects to reading efficiency, and extended, fluent reading is what connects reading efficiency to comprehension. Lastly, Grabe includes prosodic structuring as a possible fourth component of fluency. However, prosodic structuring, or expressive reading, is related to oral reading as opposed to silent reading, which is what I focus on in this paper.

In looking at these subprocesses, each has an important part in defining reading fluency. Fluent reading involves reading with little effort (automaticity), but it needs to be accurate as well. As I feel that these are all important ideas to keep in mind when discussing reading fluency, I will use the definition provided by Grabe (2009) for the remainder of this paper when discussing reading fluency.

Why is L2 Reading Fluency Important?

Despite many different definitions, fluency is viewed as an important element of reading in both the L1 and L2. According to The National Reading Panel (NRP, 2000 as cited in Armagan & Genc, 2017), for L1 readers, fluent reading is an obligatory condition for becoming a

successful reader, as reading at a slow rate is a consequence of poor fluency, which leads to difficulty in reading comprehension. This is also a problem for L2 readers as they often read at slower rates since fluency training is almost entirely neglected in favor of developing comprehension first through commonly used grammar-translation and intensive reading (IR) practices (Armagan & Genc, 2017; Huffman, 2014; Sakurai, 2015; Suk, 2017). Rather than focus on fluency, countries who invest highly in English education, such as South Korea, often teach reading intensively by having students analyze texts and translate line by line (Suk, 2017). Sakurai (2015) speculates that Japanese students reading in English may not be actually reading, but rather translating to Japanese as a result of exposure to translation practices since the beginning of their English education. In adopting reading as translation approaches, L2 readers read without ever acquiring fluency, often reading with pauses and at a slow rate. Shiono (2018) writes that exposure to intensive L2 reading practices often leads to reading that does not resemble L1 reading, and results in L2 readers reading at a rate that can be three to five times slower than L1 reading.

Underdeveloped fluency makes it difficult for students to comprehend the meaning of the text. Bell (2001) claims that when readers process information at a slow rate, they are unable to hold enough detailed information in their short-term memory to understand the overall message of the text. According to the influential automatic information processing model of reading comprehension (Laufer & Samuels, 1974), fluency has a major role in the acquiring of strong reading comprehension skills. In this model, Laufer & Samuels theorize the model as an “allocation of cognitive processing resources to the reading tasks, which evolves as proficiency increases from a focus on word recognition

to a level at which word recognition becomes unconscious” (Lems, 2003, p. 9). Following this idea, Reynolds (2000, as cited in Gorsuch & Taguchi, 2008) elaborates on these ideas by stating that lower level reading processes such as phonological and orthographical identification can and should be automatized with practice, and doing so will be beneficial to readers as comprehension processes, such as schemata activation, require a large amount of attentional resources. Furthermore, slow reading rates may affect students’ attitudes towards L2 reading as a whole. Taguchi & Gorsuch (2002) write “slow reading constitutes a major problem for L2 readers because if they cannot read fairly quickly, they are unlikely to read much or with enjoyment. The idea of enjoyment and pleasure reading has a significant impact on development of L2 reading. If readers cannot enjoy reading, it seems unlikely they will acquire reading skills” (p. 44). This means that slow readers likely do not enjoy reading, and, as a result, they are unlikely to become successful L2 readers. For learners to begin enjoying reading, they must first become fast, accurate, fluent readers. Grabe (2009) claims that fluency is one of the keys to L2 learning outside of the classroom and further states that “students who have some degree of reading fluency and who are motivated to develop fluency further will most likely be engaged in a continual L2 learning environment” (p. 295).

This suggests that reading fluency is an important skill, and more instruction in the foreign and second language settings could and should be implemented to improve L2 reading fluency development.

Approaches to Developing Reading Fluency

The evidence, while limited, suggests that L2 reading fluency should be the focus of instruction in the classroom. However, the question for many is how can it be taught? In order to determine how L2

reading fluency may be taught, I searched for research which indicated approaches of improving L2 reading fluency that are founded on empirical evidence. These approaches are extensive reading (ER), repeated reading (RR), and timed reading (TR). In regard to TR treatments, the research often refers to it with different names such as speed reading or paced reading. For the purpose of this paper, I will categorize those studies as TR studies. Moreover, these approaches are not limited to reading fluency development and have many other benefits; however, I will only refer to these approaches in how they affect L2 reading fluency. Additionally, I will also look at if these studies indicate comprehension as a result of being exposed to these treatments. According to Hudson et al. (2009), fluency activities need to focus on improving reading rates along with comprehension together. As a result, I will look to see if comprehension gains are indicated in the literature on L2 reading fluency.

In the following sections, I will define ER, RR, and TR, as well as present findings which show how these treatments affect L2 reading fluency by gains in reading rate. In addition, I will also look at how comprehension is measured in these studies in order to determine if there is a connection between gains in reading rate and comprehension for L2 readers.

Extensive Reading for L2 Reading Fluency Development

Day and Bamford (1998) first credited ER to Harold Palmer, who defined it as reading large amounts of text with a focus on meaning. Grabe and Stoller (2011) expanded on this idea by claiming ER includes reading large amounts of text, which are also within the reader's linguistic capability. Day and Bamford (2002) attempted to determine the characteristics of successful ER implementation in the L2 reading class-

room and claimed that are 10 principles for ER programs. These principles were:

1. The reading material is easy.
2. A variety of reading material on a wide range of topics is available.
3. Learners choose what they want to read.
4. Learners read as much as possible.
5. The purpose of reading is usually related to pleasure, information and general understanding.
6. Reading is its own reward.
7. Reading speed is usually faster rather than slower.
8. Reading is individual and silent.
9. Teachers orient and guide their students.
10. The teacher is a role model of a reader

(Day & Bamford, 2002, pp. 136-141)

Several of these principles could benefit students' development in L2 reading fluency if exposed to ER. First, Day and Bamford (1998) claim that reading within one's linguistic competence, or easy reading material, can help develop sight vocabulary, which refers to words that are recognized rapidly, accurately, and automatically. As students read large amounts of easy text as they do with ER treatments, they encounter the same words a number of times which increases their sight vocabulary. In doing this, recognition and decoding of words becomes a more automatic process. Furthermore, by allowing students to select their material that is both interesting and easy for them, students can gain positive attitudes towards reading. Research has shown that students who engage in ER are likely to be motivated and have positive attitudes towards reading (e.g., Belgar & Hunt, 2014; Belgar, Hunt & Kite, 2012; Hitotsugi & Day, 2004). Developing positive attitudes towards L2 reading can lead to students reading more, which could potentially lead to gains in L2 reading fluency.

Developing L2 Reading Fluency

Several studies have looked at ER as a means of studying L2 reading fluency through reading rate gains (e.g., Lai, 1993; Mason & Krashen, 1997; Robb & Susser, 1989). Bell (2001) conducted a study comparing the reading rate gains and comprehension gains of adult learners of elementary level English in Yemen using ER treatments and intensive reading (IR) treatments. This study, which lasted two academic semesters, exposed the ER group to graded readers. Bell hypothesized that reading rate gains would be greater with the ER treatment group using graded readers and this was confirmed in the study with the ER group showing a mean improvement in rate of 59.3 words per minute (WPM) in comparison to the IR group's mean improvement of rate of 14.08 WPM. A striking observation in this study is that the IR group showed higher reading rates than the ER group pretest, but ER gained higher reading rates by the end of the study. Results of three different types of comprehension questions also showed that the ER group significantly outperformed the IR group as well. Bell claimed that the positive results of this study were due to the ER treatments use of simplified readings in the form of graded readers which is similar to previous ER research.

In a more recent study, Huffman (2014) conducted a study on ER's effect on L2 reading rate by investigating the use of ER in a Japanese nursing college (N=34) with the use of graded readers over the course of one academic semester. Additionally, he compared the use of IR groups (N=32) using short stories from the book *Chicken Soup for the Nurse's Soul* in order to see which treatment showed larger gains in reading fluency. Huffman also looked at how comprehension was affected by these treatments by including ten multiple choice comprehension questions with each reading. Huffman hypothesized that reading rates

would be significantly larger in the ER group, and this was confirmed by the results which showed an average reading rate gain of 20.73 WPM from pretest to posttest. In comparison, IR groups showed a decrease in mean reading rate of 0.62 WPM. But, Huffman's hypothesis that greater amounts of reading with ER would result in significantly greater reading rate gains was not confirmed. His results showed that correlation was not significant. This was consistent with research by Belgar, Hunt, & Kite (2012). Furthermore, Huffman found there was no significant changes between the two groups when looking at comprehension scores.

Belgar and Hunt (2014) conducted a study on the effects of ER treatments on the amount of pleasure reading on reading rate gains with Japanese university students studying English (N=76) over an academic year. After undergoing treatments of ER, participants were put into five groups depending reading rate gains. Group 1(N=14) experienced the greatest increase in reading rate at 32.99WPM, followed by group 2 (N=15) at 18.71WPM, group 3 (N=16) at 11.24 WPM, group 4 (N=16) at 4.51, and finally group 5 (N=15) showed decreases at -3.91 WPM. Belgar and Hunt's hypothesis that greater amounts of reading would result in greater improvements in reading rate was generally supported in their findings, however there was one exception being that group 3 (184,485 words read) read more than group 2 (176,490), although group 2 experienced a greater improvement in WPM. This study shows some connection between amounts read to reading rate gained, which Huffman (2014) was looking to find, but it also shows there is still work to be done on this subject to find the relationship between amounts of reading to reading rates. In this study, comprehension was observed through the use of multiple choice tests following reading passages, but

only as a means to ensure that the participants were reading the passage. As a result, the study did not report the findings of comprehension from the ER treatments.

Chang and Millet (2015) used ER to investigate reading rate in a way that is different from previous studies. In this study, ER treatment was conducted with EFL learners using graded readers in two groups, one being ER with silent reading (N=33) and another being ER with audio-assisted reading (N=31). There are some interesting findings in this study. One, this study did include pretests and posttests, and also included a delayed posttest which showed that both groups improved their reading rates and maintained the rates during a delayed posttest. This provides some answers to whether reading rate are retained over time. The other finding of interest in this study is that the group which engaged in ER with audio-assisted readings experienced substantially greater improvements, increasing from 102 WPM to 145 WPM as opposed to the silent reading group which improved from 101 WPM to 119 WPM. Finally, the findings of the comprehension test showed that audio assisted ER resulted in greater comprehension in comparison to the silent reading group. Additionally, delayed posttests showed that both groups were able to maintain comprehension gains after three months without ER treatments. This presents some interesting results that show there is still much more to be done with ER for maximizing the gains in L2 reading fluency.

Suk (2017) investigated the impact of ER with IR on reading rate over a 15-week academic semester in a Korean University with two control groups (N=88) and two experimental groups (N=83) studying English. Control groups underwent IR instruction for one-hundred minutes every week, while experimental groups had seventy minutes of IR

and thirty minutes of ER. The experimental groups improved their reading rates from a mean of 133.29 WPM to 168.42 WPM; a mean gain of 35.13 WPM. Comparatively, the control group improved from 147.76 WPM to 163.29 WPM. For comprehension, the experimental groups slightly outperformed the control group, improving from $M = 25.87$ to $M = 27.14$ while the control group comprehension slightly decreased in comprehension from $M = 25.91$ to $M = 25.83$. Additionally, the study was also able to show that vocabulary also increased more for the experimental groups. Using repeated measures MANOVA, Suk confirmed the effectiveness of ER when integrated in reading curriculum on L2 for improving reading rates for L2 readers.

As the above studies show, ER has shown to be effective for improving L2 reading rate when compared to treatments like IR. While the use of ER as a means of developing reading rate could be seen in many of these studies, there are still some questions. In a number of these studies, comprehension was shown to increase as a result of ER, while some studies were unable to show that ER treatments resulted in significant improvements in comprehension. More research on ER could look to clarify the comprehension as an outcome. Another interesting finding was from the study by Chang and Millet (2015), which showed that a combination of ER with audio-assisted reading yielded better reading rates than silent ER. Most studies on ER involve silent reading, but this finding suggests there could be other ways of implementing ER worth exploring. There are a lot of merits to using ER as a way to develop reading fluency; however, there are other approaches that may be more fitting to readers of different learning styles. In the next section, I will describe another way for students to increase L2 reading fluency.

Repeated Reading for L2 Reading Fluency Development

RR is another approach to improving reading fluency that has gained some popularity in recent years. Originally developed for L1 readers by Samuels (1979) for translating the previously mentioned Automaticity Theory into practice, readers in RR treatments are tasked with reading specific reading passages repeatedly either silently or orally. RR has been studied extensively with successful results in the L1 (e.g., National Reading Panel, 2000) but in terms of L2 reading, RR is a topic that's relatively new, but promising in terms of increasing reading rates (e.g., Chang, 2012; Gorsuch & Taguchi, 2002; Gorsuch & Taguchi, 2008; Taguchi, 1997; Taguchi & Gorsuch, 2004). Furthermore, the use of RR could be very empowering for L2 readers. Cohen (2011) writes, "RR works as a scaffold for struggling readers by providing them with short-term, achievable mini-goals such as completing a passage in faster time, increasing words read correctly, and reading for a better understanding of the text (comprehension)" (p. 21). The practice of RR seems relatively different from ER, but RR does share some activities with ER such as reading easy texts. Next, I will review some of the literature on RR and its impact on L2 reading fluency.

In an early study of RR, Blum, Koskinen, Tennant, Parker, Straub, and Curry (1995) conducted RR with the use of books and audio tapes in an L2 reading program for beginning first grade ESL readers. Blum et al. hypothesized that additional access to books and audio tapes with RR for home use would increase reading rates and comprehension. The participants in this program perceived themselves to be reading at faster rates with better comprehension, but measurements indicated that while reading rates increased, comprehension slightly decreased. Still, an important point of discussion is that the results of the participant

survey showed that readers felt motivated by RR. This effect is similar to that of ER in that students could potentially be motivated by these treatments, and as readers expose themselves to more reading by reading more frequently.

Other important contributions to research on L2 reading fluency with the use of RR have been done by Gorsuch and Taguchi over the past few decades. Taguchi (1997) looked at RR, but with reading being done silently and orally over twenty-eight sessions over ten weeks with Japanese university students (N=15). Students read passages silently seven times with three of those times reading while listening to an audio version. Readers improved reading rates dramatically from 68.10 WPM to 127.53 WPM with practiced passages; however, rates did not transfer to unpracticed passages. Following that study, Taguchi and Gorsuch (2002) conducted a ten-week experiment comparing an RR experimental group (N=9) with a control group (N=9). The findings of this study were inconclusive, showing that both the experimental group and control group both experienced improvements in reading rate and comprehension, making it difficult to determine what impact RR had on the participants. In comparing ER and RR, Taguchi, Takayasu-Maas, & Gorsuch (2004) studied the effects of RR on Japanese university students of beginning level proficiency using two graded readers from the Heinemann *New Wave* Series which were estimated to at the 4th grade level in the U.S. The research showed similar increases for both groups with RR increasing from 82.28 WPM to 115.24 WPM and ER increasing from 64.48 WPM to 108.24 WPM. While the difference between the two appears to be large, a Mann Whitney U comparison showed that the difference was not significant at $p < .0125$. Findings on comprehension had similar results showing that treatments of ER and RR both re-

sulted in improvements in comprehension with ER having a slightly higher increase. Another important finding in this study is that many of the participants from both groups stated a willingness to read longer passages in English. Follow up studies by Gorsuch and Taguchi (2008) addressed reading rate and comprehension in an eleven-week experiment with university students in Vietnam studying English. In this study, the experimental group (N=24) experienced a 55 WPM improvement, which was more than the control group (N=26). In terms of comprehension, the experimental group outperformed the control group, despite comprehending significantly less during pretreatment. Gorsuch, Taguchi, and Umehara (2015) looked at RR treatments for beginner Japanese language learners (N=14). This is an important study as it is one of the few that looks at L2 reading fluency outside of EFL or ESL. In this study readers read both silently and aloud with audio support for twenty-three treatments spanning one semester. Many of the participants improved in terms of reading rate by means of faster word decoding skills, as well as experienced improvements in comprehension. Additionally, many of the students claimed they were more confident about reading Japanese texts. Although a study with limitations, particularly in having only fourteen participants, this study is important in that it shows some positive results for RR in a language other than English.

Following methodology of RR treatments from Taguchi (1997) and Taguchi and Gorsuch (2002), Yeganeh (2013) looked to see if monolinguals and bilinguals would differ in reading rate gains and comprehension with the use of RR over an eight-week experiment. Both monolinguals (N=10) and bilinguals (N=10) both improved more than the control group (N=20). In comparing the monolingual group with the bilingual

group, there were no significant differences in gains in reading rate. These findings confirm the results of previous work in showing RR can improve reading rates. Comprehension, however, showed a difference with bilinguals outperforming monolinguals despite experiencing similar reading rate. This presents a question on the impact of bilingualism and monolingualism for L2 reading development that could be addressed in future research.

The results in RR for developing L2 reading fluency are somewhat mixed, but more recent research has shown positive outcomes in reading rate. While there seems to be a lack of evidence suggesting comprehension as an outcome, more research needs to be done to confirm whether comprehension improves with RR. Additionally, RR could be beneficial for students as some reported having positive feelings towards L2 reading using it. If this is true, then like ER, RR could motivate students to expose themselves to more L2 reading, which could help with their fluency development. In order to further establish RR as a strategy for reading instruction, more evidence needs to be conducted in order to demonstrate its viability in the reading classroom.

Timed Reading for L2 Reading Fluency Development

Timed reading (TR) is another area that has looked at the development of reading fluency. Shimono (2018) states that TR is an approach which has readers read passages under timed pressure with the goal of increasing reading rates and outperforming previous benchmark scores. Additionally, Macalister (2010) states that a characteristic of courses using TR is that they usually include having readers read a set number of texts of fixed length with restricted lexicon, followed by comprehension questions to encourage readers to read texts for understanding. The framework of TR and how implementation of TR activi-

ties helps develop reading fluency is based upon research done on working-memory or short-term memory. According to Chang (2010), working-memory refers to “the information that is activated or given mental stimulation for immediate storage and processing, and is characterized by having limited capacity and the fact that its content fades very quickly” (p. 287). While ER and RR also work towards minimizing the limitations of working memory, TR differs in its approach by having students read under “timed pressure.” The purpose of this is not only to develop faster reading rates, but to help students who have developed compensatory reading habits. Chang (2012) writes that according to Compensatory Encoding Model by Walczyk, “With sufficient time, most readers, even with verbal inefficiency, can comprehend most texts literally because they overcome their reading problems by compensatory behaviors” (p. 60). Such methods, however, do not improve reading fluency. In order for readers to better develop fluency, readers could use time constraints to improve reading rate rather than relying compensatory methods for comprehension (Chang, 2012). Moreover, by including a time limitation, TR is believed to help increase reading comprehension by “promoting mindfulness in students, a construct which involves exertion of more effort and motivation” (Walczyk, Kelly, Meche, & Braud, 1999 as cited in Chang, 2010, p. 287). TR has been showing promising results in some studies, and some researchers strongly recommend the use of TR in all classes that aim to teach reading fluency (Chung & Nation, 2006; Macalister, 2010).

Chung and Nation (2006) looked at Korean university students (N=49) and found positive results when TR was administered over a twenty-three-week study. Reading rates improved dramatically from an average of 141 WPM to 214 WPM. This study, however, has its limi-

tations. To begin with, there was no control group, which makes it difficult to determine the effectiveness of TR. Secondly, reading comprehension was not looked at in this study, and further research to see if TR does improve reading rates, as well as reading comprehension was recommended. Moreover, Chung and Nation reported some reading was done outside of the classroom, which affected the reliability of the findings of this study. Lastly, although the growth in reading rate could be observed after the posttest, there was no evidence to show that rates were retained over a longer period of time, which is an issue much of L2 reading fluency has failed to address.

In an attempt to see how TR could be used within an English program, Macalister (2010) looked at the effects of TR on students (N=36) reading authentic texts for a speed reading course held over twelve weeks. This study used a target group who received TR treatments (N=24) and a control group without treatment (N=12). The results were somewhat positive with sixteen out of twenty-four participants who experienced TR showing increases in rate from pretest to posttest when reading authentic texts. In comparison, only two out of the twelve participants who did not experience TR had higher rates from their pretest. Although Macalister considers the use of TR in class to be useful, he does have some concerns. He writes:

A speed reading course may not, of itself, be sufficient to increase and maintain reading speed. The challenge for teachers is to decide how best to reinforce the reading speed gains that a speed reading course can deliver. Opportunities to read, possibly through an extensive reading program, are needed so that learners can maintain their gains in reading speed. (Macalister, 2010, p. 112)

The idea of incorporating other approaches, such as TR with ER, is an

interesting prospect which I will address later after reviewing more studies on TR. Tran and Nation (2014) also researched the effects of TR for a speed reading course in Vietnam. One hundred-sixteen first year university students were broken up into four groups, with two attending both a speed reading course as well as the usual courses in the English program. The other two groups attended courses at the English program and courses at an English language center respectively. The treatment groups both experienced increases in rate above 50 WPM and read at 70% accuracy in measuring comprehension. An important finding in this study is that in comparison to previous studies, Tran and Nation looked at language memory span. Tran and Nation asserted that, "Increasing reading fluency involves keeping larger stretches of language in mind while reading, so it is reasonable to expect a memory span increases" (Tran & Nation, 2014, p. 16). The results of this study were impressive, indicating that the treatment groups had increased in memory span as a result in improvement in fluency, which was confirmed to be reliable.

In another innovative study, Chang (2012) looked at TR group (N=18) in comparison an oral RR group (N=17) with 35 EFL students. The TR group read fifty-two reading passages and the RR group read twenty-six over the span of thirteen weeks. Findings showed that the TR group increased its reading rate by 50 WPM and the RR group improved by 23 WPM, and rates gained remained similar over a delayed posttest which was held six weeks later. In terms of comprehension, the TR group showed increases from pretest to posttest, and did not drop significantly during the delayed posttest. On the other hand, the RR group did show a drop in comprehension from the posttest to the delayed posttest. This study provides interesting results in comparing TR

and RR. Another important contribution this study makes to the study of L2 reading fluency is that it shows the results of delayed posttest which show increased reading rates can be retained without treatment.

Armagan & Genc (2017) observed Turkish EFL learners (N=74). At the time of the study, this was the first study to look at TR with Turkish EFL learners. The experimental group was tasked with reading three passages a week for five weeks. The experimental TR group had three minutes to read each passage and afterwards were tasked with completing comprehension questions. In order to determine the role of TR for L2 reading fluency, the control group was not limited to three minutes to complete the reading task. Like the TR group, the control group answered comprehension questions. In terms of reading rate gains, the TR group experienced a 44% increase from a mean of 136 WPM to 196 WPM. The control group, however, also experienced a large increase in reading rate from 110.09 WPM to 153.09 WPM, a 39% increase from pre-test to post-test. In terms of comprehension, however, there were no significant differences between the two groups.

Shimono (2018) examined silent reading rates and comprehension with two fluency treatments of TR and TR with oral reading (TROR). Students experiencing TROR treatments completed readings with TR and then listened to the instructor reading and mimic the instructor. The study lasted twelve weeks at a Japanese University with fifty-five first year and second year Japanese students. Lower proficiency learners (N=20) were given TROR (N=18) treatments, while TR treatments were administered to students in the middle proficiency band (N=20). A comparison group (N=17) of low proficiency and middle proficiency students was also assessed without experiencing reading treatments. In observing the reading rate progression, Shimono found that the TR

group progressed at a higher rate than the TROR group, but the TROR group almost caught up to the TR group by the end. It's important to note, however, that the TR group was more proficient than the TROR group at the beginning of the experiment which Shimono admits was a limitation in this study when making comparisons between the two groups. The gains in reading rates were also modest in comparison to previous studies, although they were still statistically significant. Moreover, the readings rates of both experimental groups surpassed reading rates of 100 WPM, which is important as Nation (2005 as cited in Shimono, commented that a reading rate below 100 WPM hinders comprehension. In terms of comprehension, neither experimental group averaged over 70% comprehension, but both groups experienced an upward trend. For the TROR group, the average through weeks 8-10 surpassed 70%, which suggests that additional prosody training can enhance comprehension. Comparatively, the control group also experienced a 10% increase in comprehension, but this was accompanied with a significant decrease in reading rate, which suggests that TR and TROR would be a beneficial addition to the reading classroom.

Finally, a recent study followed the suggestion from Macalister (2010) in incorporating TR and ER in a reading program. In one part of this study, Tabata-Sandom (2017) observed university learners of Japanese (N=21) in a reading course which included, but was not limited to, ER and TR. Reading rates were analyzed using three scoring methods adapted from Chung and Nation (2006). While the participants commented that they felt increases in reading rate and comprehension, the scoring methods were unable to determine any significant changes in both the TR and ER groups. Tabata-Sandom claimed that this could be due to insufficient training in TR and the possibility that students were

still in the habit of using grammar-translation for reading. While the results of this study did find increased reading rates through using ER and TR, many of the students commented that they enjoyed and welcomed different instructional approaches. Also, this is one of the few attempts to look at L2 languages other than English, as well as a combination of L2 reading fluency approaches.

In looking at the literature on timed reading, there are some very interesting results. Comparatively limited when looking at other studies, particularly those on ER, the literature on TR provides fascinating results such as how fluency increases enhance language memory span as shown in Tran and Nation (2014). Much like ER and RR, there are still mixed results on findings showing increases in comprehension. Still, the literature on TR is very limited, and more replications on these types of studies should be conducted to strengthen the value of TR.

Discussion

The three approaches to developing L2 reading fluency have their strengths and weaknesses. Students benefit from exposure to ER such as increases in reading rate, and readers can develop automatic word recognition by exposure to large amounts of simplified texts. Furthermore, some participants exposed to ER show more willingness to read, which results in better fluency as they read more. RR has also shown to increase reading rate in many instances. Like in ER, some participants who have experienced RR have also shown to be more motivated to read in their L2. Similarly, TR has been shown to increase reading rates, although the WPM increased throughout the studies ranges from large increases to minimal increases, making it difficult to see how effective it is. With all three approaches, there are still some vary-

ing results in how comprehension improves with these treatments; however, much of the more current research has shown some promising findings. In looking at these three approaches, there are still many questions about how it affects comprehension, but they have often shown to be a viable means of developing reading rate in many instances. Additionally, in many of these studies, participants have been observed as feeling more confident in reading and enjoying reading more as a result of these approaches showing that these approaches can have a motivational effect on readers as well.

The current body of literature on L2 reading fluency has promise, showing reading rates and comprehension can be improved through treatments of ER, TR, and RR; however, there are still some questions that need to be addressed. First, evidence, shows that reading rates can be observed from pretest to posttest in some of these studies, but very few of these studies observe reading rate gains in a delayed posttest without treatment. Future research should expand on this gap by showing whether gains in rate would remain after a period of time without fluency treatments. Doing so would more clearly show how effective L2 fluency treatments are for increasing reading rate. The same could be said for comprehension. Belgar and Hunt (2014) wrote that comprehension gains need to be observed to consider reading rate gains to be considered fluency development; however, comprehension is still rarely reported in the research. While some of these studies looked at comprehension, and some of them also showed positive correlations between reading rate gains and comprehension, there is still a lack of consistent research which looks at comprehension as an outcome of fluency treatments. Furthermore, like reading rate gains, I also suggest looking at comprehension gains in delayed posttests as well. Showing

that these treatments not only benefit reading rate, but also comprehension, may convince L2 reading teachers who are more concerned with comprehension practice that fluency development does have a place in their classrooms. Another area of interest was Huffman's study (2014) that did not indicate that large amounts of reading resulted in higher reading rates. Belgar and Hunt (2014) found that students needed to read 200,000 words of pleasure reading in a year to experience reading rate gains; however, additional research is needed in order to confirm their findings. Also, future research could focus on a combination of treatments to see if there are any increases in L2 reading fluency as opposed to a single approach similar to the proposal made by Macalister (2010) which was looked at in Tabata-Sandom (2017). Moreover, the use of any of the three treatments does not suggest removing intensive reading instruction. Day (2015) suggests the idea of *blended extensive and intensive reading*. This approach was used in the *Cover to Cover* series by Day and Harsch (2008) where reading strategies were taught and used in more IR reading tasks, while other units looked at developing fluency through ER. This is an interesting proposition as it uses two different approaches with two different reading goals together to develop better reading skills. While I do think the three approaches have their benefits individually, the idea of using more than one is something that can be looked at, and how that would work in a class is also worth exploring.

Next, I would like to address the issue regarding L2 reading fluency for languages other than English. Although most of the research claims to be looking at L2 reading fluency, truthfully, most of these studies are concerned with L2 English reading fluency. There are a few exceptions, such as research done with L2 Japanese (e.g, Burgh-Hirabe

& Feryok, 2013; Gorsuch et al, 2015; Hitotsugi & Day, 2004; Tabata-Sandom, 2015, 2017; Tabata-Sandom & Macalister, 2009). However, most of these studies are concerned with how students feel about towards new forms of reading instruction. While they provided important findings, such as that some L2 Japanese learners being open to fluency approaches, more studies should look at reading rate and comprehension gains as a result of these treatments in other languages as well. Moreover, research on how to implement these approaches with consideration to the target language's features should be considered. For example, while Tabata-Sandom (2015, 2017) showed positive impressions on using fluency approaches, there were varying opinions on the use of simplified Japanese orthography, with some participants claiming it was not helpful. This suggests that principles and implementation of ER, RR, or TR may need to be altered in some way to best fit the target language and how these approaches should be adapted with consideration to target language writing systems among other factors could be explored.

It may be a fair assessment to state that other languages are inadequately looked at in terms of L2 reading fluency. Whether it be with ER, RR, or TR, more research should look at languages other than English to see if the findings are consistent with L2 English to show these approaches as being viable means of developing L2 reading fluency for other languages.

Lastly, I would like to state that while I advocate for the use of these approaches as well more research into other approaches of improving reading fluency, I do admit there are issues on how teachers can incorporate fluency development into their classrooms. Kanatani, Takayama, Usukura, and Ota (2011 as cited in Sakurai, 2015) state that

English teachers-to-be in Japan are only required to take one course on effective teaching English where they may learn language learning theories, but not necessarily about the practice, leaving inexperienced teachers to resort to more familiar and traditional methods they may have experienced as students. With so little research on fluency for language learning, it's likely that educators may not be familiar with approaches to developing L2 reading fluency, as well as the benefits for the reading development. More research could be conducted to see if teachers know about fluency and fluency development approaches.

Conclusion

From the research I have presented, I would have to agree with many of the researchers who have studied L2 reading fluency in that the focus on the subject is lacking. While researchers have provided a mix of results with ER, RR, and TR, the amount of research is still inadequate, and more research should be conducted. Many still dismiss the instruction of L2 reading fluency claiming that fluency will come with more focus on comprehension. Truthfully, I can understand their stance to some extent as there is still very little research out there. However, I feel that with proper attention and focus on L2 reading fluency research and how it can present positive results such as increasing motivation for readers and comprehension both immediately and long term, stronger evidence will begin to emerge, which could potentially lead to changes in L2 reading classrooms around the world.

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Developing L2 Reading Fluency

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