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Relationship of Word Recognition Abilities and Oral Reading Fluency with Reading Comprehension Skills of Secondary School Pakistani EFL Learners

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Original Article

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L2 reading, word recognition, oral reading fluency, text comprehension, EFL learners, Pakistan

Abstract

Most investigations of associations of oral reading fluency (ORF) and word recognition abilities with text comprehension are based on first language (L1) reading data. Reading research in this area in second language (L2) or English as a Foreign Language (EFL) context is very limited. The present study analyzed relationship of oral reading fluency and word recognition abilities of secondary school level Pakistani EFL learners with their text comprehension skills. Participants' oral reading fluency was measured through Rasinski's (2004) Multidimensional Fluency Scale (MDFS), their word recognition scores were measured through a Sight Word Recognition Test, based on Fry's (1980) and Dolch's (1936) word lists and the guidelines in Stoller (1993). A reading comprehension test was developed to assess participants' reading comprehension skills. Pearson correlation was computed through IBM SPSS Statistics 21 to analyze relationship and the strength of relationship of word recognition skills and oral reading fluency with text comprehension abilities of the participants. Analysis of results revealed a negative association between word recognition and reading comprehension. On the other hand, a positive association was found between oral reading fluency and reading comprehension. Analysis of the multiple linear regression analysis showed that prosody more significantly predicts better reading comprehension scores. As far as predictors of better reading comprehension skills are concerned, oral reading fluency was found to predict more significantly better reading comprehension abilities. Both word recognition exercises and oral reading fluency practice need to be incorporated into the reading instruction in order to improve reading comprehension skills of Pakistani L2 English learners.

Introduction

Across the world, reading is one of the most crucial and necessary abilities for academic success in firstlanguage (L1) and secondlanguage (L2) contexts. Due to the global growth of English and its importance, being a proficient reader is essential for achieving both personal and professional success. The reason for this is the extraordinary global demand for English as a second language. The rise of English as a language of instruction in many educational systems worldwide has been made possible by this growing demand. Despite these demanding expectations for success, second language learners are rarely provided with the proper opportunities to build strong reading proficiencies (Grabe & Stoller, 2002). Learners who do not acquire reading skills in the early grades may fall behind in all other domains of cognitive development. Students who struggle with reading in their early school years may not be able to read fluently in their later years of education.

Learners need to integrate a variety of reading component skills that are necessary for successful reading. The essential reading sub-skills which are important for the development of reading capabilities include phonemic awareness, fast recognition of sight words, fluency in reading texts at a reasonable level, and the utilization of strategies to enhance comprehension (Chafouleas, Martens, Dobson, Weinstein, & Gardner, 2004). Proficient readers possess the ability to combine several reading abilities, such as phonemic awareness and word recognition, to derive meaning from the material they read. Oral reading fluency is one of the important measures of reading ability. Oral reading fluency in students has been found to have a strong and direct connection to reading proficiency. Enhancing students' oral reading fluency promotes the development of autonomous reading abilities. Independent readers are capable of self-monitoring (Stayter & Allington, 1991).

Reading proficiency is significantly predicted by exposure to print. Giving learners lots of reading chances helps them develop their language and reading comprehension skills over time. Regarding the significance of oral reading fluency, oral reading incorporates the fundamentals of reading fluency (Rupley, Nichols, Rasinski, & Paige, 2020). According to recent research, oral reading fluency is crucial for academic performance (Chard, Vaughn, & Tyler, 2002). One of the qualities of skilled readers is their fluency in oral reading. Given the substantial association between reading comprehension and fluency, it is most persuasive to focus instruction on helping students become fluent readers. There is an obvious correlation between text comprehension and all aspects of fluency. A learner cannot comprehend the meaning of a piece of a text or the author's intent without reading fluently. However, having trouble in reading might also lead to misreading the material. Inadequate automaticity and prosody can also result in misunderstandings and unclear interpretations of the lines.

Fluency has an impact on many aspects of reading, including word recognition and comprehension. Fluency in reading contributes to reading proficiency and silent reading comprehension. Better oral reading proficiency contributes to successful reading comprehension (Rasinski, Rikli, & Johnston, 2009). Researchers are now paying close attention to fluency, which the National Reading Panel (National Institute of Child Health and Human Development [NICHD], 2000) identified as one of the reading skills that is most underappreciated. Researchers and practitioners became interested in it because, in contrast to word recognition, reading fluency is not a factor that is commonly discussed in reading development (Pikulski & Chard, 2005).

Reading fluency has a wide range of aspects. The first dimension highlights the importance of word decoding accuracy, the second emphasizes the speed and automaticity of word recognition in text, and the third dimension emphasizes the expressive and meaningful understanding of text. All of these aspects are related to one another: expressive reading is made possible by accurate and automatic reading. For effective comprehension and overall strong reading, all three dimensions are essential. Since oral reading fluency develops efficient decoding skills through reading within the allotted time, it is regarded as a connecting element for word recognition and text comprehension. Maintaining a reasonable reading pace and understanding the content are also necessary for reading fluency. This indicates that there are three components to reading fluency: automaticity in word recognition, accuracy in word decoding, and fast reading speed (Grabe, 2009). These component skills exhibit strong interdependencies. Automatic word recognition is a fundamental skill for fluency in reading. It is interesting to note that consistent, ongoing reading practice is the foundation for automatic word recognition. Another crucial element of reading fluency is accuracy; without it, it is impossible to recognize words and understand texts. Throughout the entire text, these two processes, automatic word recognition and accuracy must happen at a reasonable pace. Without automatic and precise word recognition, reading comprehension is impossible (Grabe, 2010).

L2 English or EFL learners' language abilities in general and reading abilities in particular are not considered satisfactory for many reasons. And L2 learners of English in Pakistan are also no exception to such deficiencies in English language and reading skills (Sultana, 2022). It is commonly observed that school level students in Pakistan are engaged in oral reading. They receive extensive practice in oral and they do seem to have reasonable level of fluency and accuracy in oral reading, but their reading comprehension abilities do not seem to be at par with their oral reading skills. However, due to the lack of research literature and evidence based on some data in the context of Pakistan, it is difficult to fully understand this issue and its various aspects. The present study, which aimed investigating the predictive relationship of word recognition abilities and oral reading fluency with reading comprehension skills of Pakistani secondary school level learners of English, is an effort in this direction.

Research Questions

The current study had the following research questions:

1. Is there any relationship of word recognition abilities and oral reading fluency with the reading comprehension skills of Pakistani school level EFL learners?
2. How much does each component of the oral reading fluency predict better reading comprehension skills of school level Pakistani EFL learners?
3. Which one of the two variables, i.e., word recognition skills and oral reading fluency, better predicts text comprehension abilities of the secondary school level Pakistani EFL learners?

Literature Review

Reading is a complex cognitive activity that involves the integration of textual information with our existing knowledge. Effective reading comprehension relies on the proficient and methodical processing of visually presented text. Lower-level skills, such as phonic awareness, word recognition, and vocabulary, as well as higher-level processes like predictions, inferencing, and integrating textual information, aid in improving reading comprehension (Grabe & Stoller, 2020). Many scholars in the field of L1 have regarded word recognition as a crucial component of reading comprehension, as word recognition essentially equates to reading comprehension. According to Perfetti, Landi, and Oakhill (2005), the ability to understand what one reads over a

longer period of time is dependent on having strong word recognition skills. Nevertheless, acquiring these abilities is impossible without being exposed to printed materials. Word knowledge encompasses various facets or characteristics. It signifies that a learner must acquire several forms of knowledge regarding the target word, such as its phonological form, orthographical form, meaning, morphological form, as well as its relationship and collocation with other words (Nation, 2006). Word recognition involves several sub processes, including: (1) identifying individual letters, (2) visually recognizing the properties of each letter, (3) establishing connections between graphemes and phonemes, (4) utilizing patterns in spelling, and (5) linking 18 specific words to their corresponding meanings (Segalowitz, 2003).

Walczyk and his colleagues (2004) proposed the Compensatory Encoding Model (CEM), which suggests that both word recognition competence and working memory contribute to reading comprehension when reading is done within a restricted timeframe. According to this model, the correlation between word recognition and reading comprehension is weak when readers have unlimited time to read. However, this correlation becomes higher when readers are under time constraints. There is a scarcity of research on the impact of word recognition on second language (L2) reading comprehension, in contrast to the abundance of studies on the impact of word recognition on first language (L1) reading comprehension. The relationship between L2 word recognition and L2 reading comprehension has not yielded clearly defined outcomes. Possible factors contributing to these results may include variations in measures, variations in the population under study, and changes in the amount of time allocated for reading by the participants (Stevenson, 2005). Nevertheless, research in L2 studies has shown evidence indicating that word recognition is essential, even for proficient readers (Shiotsu, 2009). Developing reading fluency requires the acquisition of a crucial and mandatory skill that is comprehension. This talent is essential for achieving success in both academic and professional endeavors. Multiple ideas and studies in this area have indicated that reading comprehension relies on a variety of component skills. Recent evidence suggests that the ability to read material fluently and accurately is a crucial skill for learners to comprehend what they are reading. Fluency encompasses various qualities such as quick word recognition, fast reading speed, extensive exposure to reading material, accurate comprehension, and gradual learning (Grabe, 2010, p.72).

Word recognition abilities help learners decoding pronunciation of unknown words. Researchers agree that without precise and rapid word recognition fluent reading is not possible (Hulstijn, 2001; Just & Carpenter, 1980; Macalister, 2010; Stanovich, 2000). Skilled readers are capable of recognizing a word in less than 100 milliseconds (Ashby & Rayner, 2006). Competent and fluent reading targets comprehension (Dias, Montiel & Seabra, 2015). It is evident that readers who are fluent readers will be capable of comprehending the text more effectively as compared to the readers who are not fluent readers. As defined by Brassell & Rasinski (2008), reading comprehension is one's ability of extracting information from a written text and effectively applying that information in a manner that expresses the understanding of that information. Multiple factors can influence reading comprehension abilities of learners like reading motivation, reading attitude, text structure, background information, reading strategies, oral reading fluency and word recognition skills. Researchers in L1 context have given lots of attention to explore relationship between word recognition and text comprehension. Reasons for such extensive research in L1 context related to word recognition is not that these researchers equate word recognition with reading comprehension but because they believe that better reading comprehension cannot be

attained without developing word recognition skills for a longer course of time (Perfetti, Landi & Oakhill, 2005).

Different factors affect reading comprehension abilities of readers i.e. background knowledge, text structure, motivation for reading, reading strategies, word recognition skills, oral reading fluency etc. Many researchers of L1 have given a lot of attention to the skill of word recognition in reading comprehension. They did so because they do not think that word recognition is in other words reading comprehension, but because they think that reading comprehension cannot be attained without word recognition skills for longer time duration (Perfetti, Landi & Oakhill, 2005). Researchers have also stated that “automatic word recognition is central to the construct of fluency and fluency’s role in the comprehension of text” (Kuhn et al., 2010). However, these skills cannot be attained without exposure to print. A good deal of sufficient research in L1 provides evidence for the central role of word recognition skills in reading comprehension. But the same amount of research is lacking in L2 contexts therefore it is necessary that L2 research should give serious attention to this central feature of reading comprehension.

It is vital to have an exceptional capacity to read quickly. In this regard, Hyland (1990) emphasizes that many foreign language students struggle to keep up with their assignments due to their slow reading pace. According to Hook and Jones (2002), poor readers demonstrate a lack of fluency through their sluggish, halting, and variable reading rate, poor phrasing, and inappropriate intonation patterns. Not only can strong readers read fluently and quickly, but when they read aloud, they employ proper phrasing and tone, and their oral reading reflects their spoken language.

Researchers working in the field of reading agree that reading fluency and reading comprehension are interrelated (Dechant & Smith, 1977; Talada, 2007). According to Al-Dahiry (1977), there is a connection between reading comprehension and reading speed. He asserts that this relationship is intricate and is impacted by the subsequent factors: objectives of reading, text complexity, and the content of the reading material. Reading fluency, as defined by the National Reading Panel, refers to the capacity to read literature rapidly, precisely, and with appropriate expression. Reading fluency is the ability to construct the meaning of text through the use of efficient, effective word-recognition skills. Fluency is demonstrated through the accurate, rapid, and expressive oral reading that is essential for silent reading comprehension (Pikulski & Chard, 2005).

Researchers have recently focused on the importance of reading fluency. Reading fluency is often regarded by experts as a crucial gateway to the development of reading skills. Rasinski (2010) states that two crucial components of oral reading fluency are speed and accuracy. Accuracy refers to the capacity to accurately recognize and identify words in a given text. The rapid recognition of words by students is known as speed. Fluent reading encompasses two essential components. The primary objective is to enhance reading speed and comprehension by effectively identifying and comprehending an extensive number of words. Individuals who possess a high reading speed should be capable of reading with fluency and the appropriate use of language, so achieving a true sense of comprehension (Welsch, 2006).

Extensive research has demonstrated a significant association, ranging from strong to modest, between oral reading fluency and reading comprehension. Fluency is often misconstrued, leading to a misunderstanding of its true definition and thus impacting the teaching and learning of reading. According to Marcell (2011), fluency is commonly misunderstood as the ability to read text quickly, however this is not the true definition of fluency. Extensive research has consistently demonstrated the significant correlation between fluency and understanding, highlighting their interdependence. Fluency is a crucial component of reading and should be implemented within a

comprehensive literacy framework (Millet, 2008). Efficient and rapid word identification are the fundamental building blocks for achieving fluency in reading, and fluency in reading is strongly associated with and can forecast improved reading comprehension abilities. Therefore, the ability to recognize words and achieve higher fluency levels significantly impacts second language (L2) reading comprehension.

Researchers have extensively examined the concept of oral reading fluency, analyzing its properties and formulating multiple definitions throughout their research. Reading fluency can be defined as the integration of correctness, automaticity, and prosody, which collectively enhance the reader's comprehension of material. Fluency, in the context of both oral and silent reading, has the potential to either impede or enhance understanding (Kuhn et al., 2010). Oral reading fluency is distinctly comprised of two essential components that are deemed crucial for learners to achieve fluency in reading. The essential elements required are speed and accuracy (Aldhanhani & Abu-Ayyash, 2021). Reading speed is commonly known as automaticity and reading rate as well. It can be described as a beneficial combination of multiple skill sets that work together to enable the reader to decipher and comprehend text in a coherent manner. The skills involved in the development of automaticity include attention, visual perception, orthographic identification, phonological representation, decoding, and word recognition (Benjamin, 2010). Accuracy refers to the reader's capacity to accurately recognize the words in a given text. Students need strong vocabulary to effectively recognize and understand frequently used terms in a text, allowing them to read with precision and efficiency (Brooks, Clenton, & Fraser, 2021). The measure of accuracy is commonly evaluated using the WCPM (words correct per minute) metric, which assesses the reading of a piece that aligns with the reader's instructional level. Swift identification of these terms is crucial for attaining precision. The term "speed" is used to describe a student's capacity to rapidly recognize words. Proficiently decoding sight words is directly linked to reading comprehension. Fluent reading encompasses two essential components. Firstly, the goal is to read quickly and accurately, and secondly, to recognize a significant portion of the words while ensuring comprehension. Proficient readers with a high reading speed should be capable of employing related phrasing (Welsch, 2006). Fluency and eloquence are necessary to enhance the overall auditory experience of reading.

Studies in L1 context demonstrate a mutually influential connection between reading fluency and comprehension. Similarly, there is robust evidence about the role of word recognition in developing reading fluency as well as improving reading comprehension skills of school level and adult learners. While there has been limited research on reading fluency in L2 and EFL contexts, there has been a noticeable increase in research interest in this area in recent years. The purpose of this study is to enhance the existing knowledge about the significance of oral reading fluency in developing L2 reading proficiency and comprehension skills by examining its correlation with other important variables, such as word recognition ability and reading comprehension. Furthermore, this study aims at finding out the correlation between word recognition and oral reading fluency with reading comprehension. Thus, this study is to assess the extent to which oral reading fluency and word recognition skills predict L2 reading comprehension gains of secondary school level Pakistani English language learners, thereby determining if reading fluency and word recognition may be used as measures of L2 reading comprehension and as part of reading instruction and curriculum in Pakistan.

Materials and Methods

This study was a correlational study; therefore, quantitative research method was employed. Three different instruments were used in this study. The researchers developed sightword recognition test based on the high frequency word lists of Fry (1980) and Dolch (1936), using Stoller's (1993) format for measuring word recognition abilities. The reading comprehension test consisted of three passages, i.e., narrative, descriptive, and informative, followed by comprehension questions on the pattern of TOEFL reading test. The test was used to measure reading comprehension abilities of the participants. Reading fluency was measured by assessing reading rate, accuracy and prosody. Reading accuracy was judged through (total number of words read correct divided by total number of words read) and reading rate was measured through (number of words read correctly per minute: WCPM) whereas prosody was assessed using Rasinski's (2004) Multidimensional Fluency Scale (MDFS). All three instruments were pilot-tested before use for data collection in the study.

Population and Sampling Procedures

The population of the study was students of the government and private schools of district Mansehra in the years 2020-2021 where English is taught as an L2 or as a foreign language. It included male and female students at secondary school level attending different government and private schools in District Mansehra.

The sample of the study consisted of 100 secondary (high school) students of grade 10 who were attending five different schools in District Mansehra. There were 50 male and 50 female students who participated in this study. Non-random, purposive, and convenient sampling procedures were used to select sample.

Prior to the collection of data, the researcher took prior permission from the selected institutions for administering the three tests herself. Reading rate and accuracy was judged objectively and prosody was assessed subjectively through MDFS developed by Rasinski (2004).

Results

The current study aimed at exploring the relationship of word recognition and oral reading fluency with text comprehension among secondary school Pakistani EFL learners of 100 secondary school EFL learners in the selected schools in Hazara Division, Khyber Pakhtunkhwa. In the light of each research question, all responses were analyzed through descriptive statistics, scatter plots, Pearson correlation, multiple regression, and an independent sample t-test. Results of each research question are presented in the following sections. The first research question aimed at exploring relationship between word recognition abilities and oral reading fluency with the reading comprehension skills of Pakistani school level EFL learners. Descriptive statistics and scatter plots were used to answer this question.

Pearson Correlation was employed to examine the presence of a statistically significant relationship between word recognition skills (WRs) and reading comprehension skills (RCs), as well as oral reading fluency (ORF) and reading comprehension skills (RCs). Prior to conducting all these tests, all assumptions were verified and descriptive statistics were examined.

The results in Table 1 below demonstrate a statistically significant link between word recognition and reading comprehension $r(100) = -.598, p = .000$ as well as between oral reading fluency and reading comprehension $r(100) = .628, p = .000$. The results in Table 1 clearly demonstrate a strong association between word recognition, oral reading fluency, and reading comprehension, as indicated by the p values being less than 0.05. The correlation coefficient

between word recognition and reading comprehension is $-.598$, indicating a strong negative relationship. The p value, which measures the statistical significance of this association, is 0.000 . The negative slope parameter ($-.598$) implies a negative correlation between WRs and RCs. Given the negative association, high WRs tend to be associated with low RCs, and vice versa.

With a correlation coefficient of $-.598$, according to Cohen's (1998) standards, the effect size is considered large or greater than what is often observed. Alternatively, a correlation was calculated to examine whether there was a statistically significant relationship between ORF and RCs. The results presented in table 1 indicate a substantial association between WRs and RCs, as indicated by a p value of less than 0.05 . The correlation coefficient is 0.628 and the p value is 0.000 . The results demonstrate a clear and positive correlation between ORF and RCs. Given the positive direction, students having better reading fluency tend to have higher reading comprehension test scores and vice versa. With a correlation coefficient of $.628$, according to Cohen's (1998) standards, the effect size is large or larger than what is often typically observed.

Table 1. Association of WRs and ORF with Reading Comprehension

Variables	Correlation Coefficient	M	SD	P
WR score	$-.598^{**}$	50.80	4.60	.000
RC score		2.61	1.17	
ORF score	$.628^{**}$	38.72	18.24	.000
RC score		2.61	1.17	

The current study's second research question was to find out how much does each aspect of oral reading fluency (i.e., reading rate, reading accuracy, and prosody) best predicts improved reading comprehension abilities. Multiple linear regression analysis was used to determine how much does each component of oral reading fluency predict improved reading comprehension skills and predict better reading comprehension scores. Table 2 displays the multiple linear regression analysis results.

Table 2. Three Components of Oral Reading Fluency Predicting Better Reading Comprehension Skills

Variable	B	Std. Error	Std. beta	T Statistics	P
Reading Rate	.028	.017	.123	1.613	.110
Reading Accuracy	-.005	.010	-.042	-.484	.630
Prosody	-.916	.086	-.810	-10.613	.000

Dependent Variable: Reading Comprehension Score

Adjusted R Square: .728

Note. $R^2 = .736$; $F(3, 96) = 89.355$, $p = .000$.

A multiple linear regression analysis was conducted to determine the better predictor of reading comprehension scores. The three variables together or components of oral reading fluency predicting better reading comprehension scores were found to be statistically significant, $F(3, 96) = 89.355, p = .000$. The beta coefficients and p values in the Table 2 above show that prosody predicts more significantly better reading comprehension scores or abilities when we include all the three variables as the p value for prosody is .000 which is less than 0.05. It indicates that prosody greatly predicts a person's ability to understand written text when all three factors are considered. The adjusted R^2 value was .728 which means that the model accounted for 72% of the variance in reading comprehension. Cohen (1988) characterizes this effect size as larger than typical or as a significant influence.

The third research question aimed at finding out which of the two variables (word recognition skills and oral reading fluency) better predicted text comprehension abilities. Before the test, all assumptions were verified and descriptive statistics were examined. Multiple regression analysis was conducted to determine the better predictor of reading comprehension. The results are presented in Table 3 below:

Table 3. *Word Recognition Skills or Oral Reading Fluency as Better Predictor of Reading Comprehension Abilities*

Variable	B	Std. Error	Std. beta	t	Sig.
WR Score	.109	.006	-.354	-3.948	.000
ORF Score	-.023	.023	.425	4.735	.000

Dependent Variable: Reading Comprehension Score

Adjusted R Square: 0.468

The two variables together, i.e., word recognition skills and oral reading fluency, as predictors of better reading comprehension abilities were found to be statistically significant, $F(2, 97) = 44.514, p = .000$. However, considering the beta coefficients, it is important to observe that oral reading fluency is a stronger predictor of reading comprehension when we consider all variables because of its positive association with reading comprehension. The t and Sig. values significantly contribute to the predictive relationship of the two variables with reading comprehension. The Sig. value is less than 0.05 for both word recognition and oral reading fluency. However, there is a negative association between word recognition and reading comprehension, as indicated by the negative slope parameter and t value for word recognition (-.354) and positive correlation between oral reading fluency and reading comprehension. The correlation coefficient (R) was found to be .69, considering all predictors together and value of the adjusted R^2 was 0.47. This means that the model accounted for 47% of the variance in reading comprehension, predicted from word recognition scores and oral reading fluency scores. According to Cohen (1988), this effect size is large.

Discussion

This study examined the correlation between word recognition, oral reading fluency, and text comprehension among secondary school Pakistani English as a Foreign Language (EFL) learners at the selected institutions of district Mansehra, Khyber Pakhtunkhwa. Reading is a dynamic process that encompasses various sub processes. Various elements, such as motivation,

linguistic background, home environment, word recognition, oral reading fluency, and vocabulary knowledge influence learners' reading comprehension ability. The primary objective of this study was to investigate the correlation between word recognition skills and oral reading fluency with the text comprehension skills of learners.

The analysis of the results of this study revealed a negative correlation between word recognition skills and reading comprehension abilities. The negative connection indicates that students with strong word recognition skills tend to have weaker reading comprehension skills, and vice versa. Various researchers have linked enhanced word recognition skills to improved text comprehension abilities. However, this study revealed a negative correlation between word recognition and reading comprehension. There are some potential causes that could have contributed to this negative correlation. One possible explanation for this is that word recognition is an important component of reading fluency and reading fluency has direct association with reading comprehension. But word recognition skills tend to be not contributing to reading comprehension directly. Thus, the present findings seem to be showing an indirect relation of word recognition with reading comprehension. This means that even readers with strong word recognition ability may nevertheless struggle with understanding (Nation, 2006; Landi & Oakhill, 2005). While word recognition skills showed a negative link with reading comprehension in this study, reading fluency, on the other hand, has been found to be a better indicator of learners' reading comprehension abilities. However, it is crucial to acknowledge the significance of word identification skills while enhancing the reading comprehension abilities of learners. Alternatively, a correlation was calculated to determine if there was a statistically significant relationship between oral reading fluency (ORF) and reading comprehension skills (RCs) of the school level Pakistani L2 learners of English. The analysis of the results suggests a significant positive correlation between ORF and RCs, with a correlation coefficient of $r(100) = .628, p = .000$. Given the positive association, it may be inferred that a higher ORF is typically linked to a higher RC, and vice versa. This indicates that students with better reading fluency scored high on the reading comprehension test. This means that students having better oral reading fluency tend to have better reading comprehension abilities. Fluent oral reading is characterized by a high level of accuracy and decoding, resulting in seamless and fluid reading and better reading proficiency (Wolf & Cohen, 2001). Oral reading fluency is a multifaceted concept that encompasses various components like accuracy, speed, decoding, pronunciation, prosody, and attentiveness. Hence, it is imperative to acknowledge the significance of oral reading fluency in fostering the reading comprehension skills of learners.

Oral reading fluency serves as a crucial link between word recognition and reading comprehension. Hence, the significance of oral reading fluency and word recognition in fostering the growth of learners' reading comprehension skills cannot be disregarded. According to Kim's (2011) study, oral reading fluency had a role in connecting word recognition and reading comprehension. The results of this study also verified that the ability to read aloud fluently had a significant influence on the reading comprehension scores of Pakistani EFL learners at the secondary school level at the five selected institutions. Hence, it is crucial within the scope of this study to prioritize the enhancement of oral reading fluency and word recognition capabilities among secondary school students learning English in Pakistan. This is because oral reading fluency, word recognition, and reading comprehension are closely interconnected.

This study also aimed at determining which one of the three components of oral reading fluency (reading rate, accuracy, and prosody) is better predictor of reading comprehension ability. Of the three components of oral reading fluency, prosody is the most significant predictor of

improved reading comprehension. Studies have found a strong correlation between the correct use of prosody and the reading comprehension skills and fluency of learners (Miller & Schwanenflugel, 2006; Miller & Schwanenflugel, 2008; Veenendaal, Groen & Verhoeven, 2015). The current study's findings validate earlier researchers' findings that prosody is strongly correlated with enhanced reading comprehension abilities. It reinforces the notion that fluency and reading comprehension are correlated.

In addition, the study also aimed at finding out stronger and better predictor of reading comprehension abilities out of the two variables, i.e., words recognition skills and oral reading fluency. The analysis of the results indicated that both the variables together significantly predict reading comprehension abilities of secondary school level Pakistani EFL learners in the selected schools of district Mansehra. This means that word recognition skills and oral reading fluency contribute to better reading comprehension abilities of EFL/L2 learners of English. However, oral reading fluency with its positive correlation with reading comprehension abilities, as indicated earlier too; is a stronger predictor of reading comprehension abilities.

Conclusion

Analysis of the results of various statistical tests clearly indicates a strong association between word recognition, oral reading fluency, and reading comprehension. However, the relationship between word recognition skills and reading comprehension skills is negative but in case of oral reading fluency and reading comprehension skills there is positive correlation. Out of the three components of oral reading fluency (i.e., reading rate, accuracy, and prosody), prosody is the most significant predictor of better reading comprehension skills. As far as the stronger predictor of reading comprehension abilities out of the two variables, i.e., words recognition skills and oral reading fluency is concerned, both words recognition skills and oral reading fluency contribute to reading comprehension abilities. But, oral reading fluency, due to its positive relationship with reading comprehension skills; more strongly predicts better reading comprehension abilities.

Based on the findings of this study, a few pedagogical implications might be drawn. The findings of this study confirm the notion that proficient oral reading skills are crucial for enhancing reading comprehension abilities. Hence, it is imperative for instructors and course developers to prioritize the enhancement of learners' reading fluency. Moreover, since the findings demonstrated a substantial correlation between prosody and the advancement of reading fluency and reading comprehension, it is imperative to focus on prosody to facilitate learners' mastery of reading. The results of the present investigation can assist educators and trainers in utilizing several sub-skills of oral reading fluency to evaluate reading proficiency, rather than depending only on reading comprehension. Regular assessment of fluency enables teachers to identify students' difficulties in deciphering, decoding, syllabication, or word identification (Palmer, 2010). Teachers should be mindful that word recognition, despite being a basic function, significantly influences the success of text comprehension. Therefore, it is crucial to offer students the chance to practice word recognition. Students should be provided with opportunities not only to decipher the given words but also to comprehend their meanings. Teachers should implement such strategies in the classroom to help students recognize and differentiate between disyllabic, tri-syllabic, and polysyllabic words, hence enhancing their word recognition skills. In order to enhance students' word recognition, oral reading fluency, and ultimately their text comprehension, it is necessary to provide them with increased exposure to printed materials.

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