

Relationship between Reading Fluency and Reading Comprehension of Secondary Level Pashto Speaking Learners of English in Parachinar, KP Pakistan

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Abstract:

Reading fluency, a key aspect of reading is an increasingly important area in teaching and researching reading. Currently, researchers have shown an increased interest in finding its relationship with reading comprehension. The current study aimed to investigate correlation between reading fluency and reading comprehension among secondary level Pashto speaking learners of English. Reading fluency was measured individually for 54 secondary level Pashto speaking learners of English by using Curriculum Based Measurement (CBM) also called one-minute probe. Words read correct in a minute were counted only. During one minute, words read accurately, self-corrected and repeated were counted only. Words read incorrectly, left, substituted, mispronounced, omitted, inserted and words on which students hesitated for more than three seconds were counted as error. Transposition of a word pair was counted as a single error. Errors were subtracted from total number of words read in a minute. Fluency in this study was measured as reading speed and accuracy of students only. After measuring reading fluency all students were given a comprehension test with 15 multiple choice questions and 5 open ended questions. The scores of both variables were correlated by using SPSS 21, Perason Correlation to find a correlational strength between fluency and comprehension. The results obtained indicated that there was a significant correlation between reading fluency and comprehension of the participants.

Key Words; Reading Fluency, Reading Comprehension, Secondary Level.

Introduction

Reading, an important aspect in academic plays a pivotal role in overall academic success. Readers read with an aim to gain and interpret information preserved in a written language. This process of gaining and interpreting information is referred as reading comprehension. Effective comprehension needs readers to develop various skills. A number of factors like phonic knowledge, vocabulary knowledge, reading fluency, proir knowledge and its linkage with given information, contributes to reading comprehension (Fuschs, Hosp, & Jenckin, 2001; Simmons, Coyne, Kwok, McDonagh, Harn, & Kame'enui, 2008). As many factors contribute to reading

comprehension, reading fluency is an important factor among these factors. Thus, current study aims to examine correlational strength among reading fluency and comprehension. Pardo (2004) opined that, to know the meaning of text it is important to improve decoding skills and fluency. In reading, fluency is the skill of reading accurately with proper speed and appropriate expressions (Rasinski, 2006). Reading with speed and reading accuracy, a process of accurately detecting words were considered fundamental components of reading fluency for a long time (Fuchs et al., 2001). Including these components currently, reading with appropriate expression i.e. reading with pitch, pause and duration is also well thought-out to be a key component of reading fluency (Kuhn & Stahl, 2003; National Reading Program, 2000).

Grabe (2009) opined that fluency is the skill of reading accurately and rapidly with appropriate expression in a natural way without struggle and the anticipated result of such reading is comprehension. Reading fluently requires automaticity, speed and reading expression. Automaticity, that is, constant operations which are speedy, free of resource, not subjected to hindrance, and tough to restrain. A fluent reader must be rapid, automatic complete and accurate. Speed, a key component of fluency is rapid overall rate of reading, contributing to comprehension. In L1 context a fluent reader reads 250 to 300 words per minute (WPM) because of familiarity with L1 syntax. In L2 context the results obtained have variations, readers in most cases are unable to read with the speed of 250 to 300 WPM, as they are unfamiliar with L2 syntax. L2 syntax complexity and poor decoding skills are the factors affecting reading rate. Successful L2 reading requires the same rate as L1 i.e. 250 to 300 WPM.

Reading with appropriate expression is also one of the fundamental components of reading fluency. Defining fluency from reading with expression perspective has many conflicting ideas due to variations in correlation between reading with expression and reading comprehension. Some studies like Meyer and Felton (2000); Meller and Schwanenflugel (2006) examined that the correlation between reading with expression and reading comprehension was significant. However, Schatschnieder, Buck, Wagner, Hassler and Hetch (2004) find no relationship between reading expressions and comprehension.

Eldredge (2005) observed that phonemic awareness is necessary for phonic knowledge which is the precursor of word recognition. Word recognition is required for reading fluency and fluency is the essential of overall reading comprehension. To be a fluent reader, mastery of decoding skill is essential (Cotter, 2012). Readers struggling with decoding face problems in comprehension as they concentrate more on decoding rather comprehension (Armbruster, Lehr, & Osborn, 2001). Fluency facilitates reader to know that meaning of words are carried out through expression, punctuations and phrasing, not through words only (Rasinski, 2003).

In L1 context fluency allows readers for reading extensively, exploring the length and depth of vocabulary, developing skills for reading large amount of assigned reading tasks, learning for outside classroom and improving automaticity. All these aims make fluency an

important dimension of curricular and instructional goals and focus of the reading research in L2 contexts. In L1 context many researchers have explored fluency and a considerable literature has been published on reading fluency, however, in L2 contexts far too little attention has been paid to reading fluency and its relationship with reading comprehension. Many studies like (Lawrence et al., 2010; Leems, 2003; Klauda et al., 2007; Kim et al., 2010; Cotter, 2012) have reported relationship between reading fluency and reading comprehension score in different contexts. Very limited research has been conducted in EFL contexts on fluency, in addition, no research has been found that investigates the relationship between reading fluency and comprehension among secondary level Pashto speaking learners of English. This study is an attempt to investigate the correlation between reading fluency and comprehension of secondary level Pashto speaking learners of English.

Method

Participants

Fifty-four 10th grade students Participated in the study. Out of 54 i.e. 31 students were males and 23 were females. All students were native speakers of Pashto and were randomly selected from five private schools after getting permission from the administrations of the selected schools. All schools were English medium i.e. the medium of instructions was English.

Material and Procedure

Reading fluency was measured individually for each student by using Curriculum Base Measurement (CBM) also called one-minute probe in reading. Each student was given a text of a lesson "Population Explosion in Pakistan" from their textbook of English. The researcher used examiner sheet on which number of words was written at the end of each line however students were provided with a student sheet on which text was written. Student were directed to read allowed for one minute. Stop watch was used for calculating time. Words read correct in a minute was considered as reading fluency score of student. Mispronounced, left, substituted words and word on which student hesitates for 3 seconds were crossed on examiner sheet and were not counted. After measuring fluency students were directed to read lesson from which fluency was measured. Students were provided with a comprehension test. Grade 6th English Language Arts was adapted. The test was constructed from the lesson students read.

Results

Reading fluency and comprehension score was measured for each student individually and finally the score was correlated by using Pearson correlation, SPSS 21. Mean score of both variables was also calculated using the same software. The mean score for of students' reading fluency was 135.87 WPM while the mean score of comprehension was 44.40%. The obtained

Pearson correlation p-value was .000 which is less than 0.05 standard p-value. The obtained result indicated that correlation was a significant at 0.01 level (2 tailed). P-value less than standard p-value 0.05 indicates that significant correlation exists between the variables. Coefficient of determination, was also calculated, the reported coefficient i.e. (.522) was squared, $(.522)^2 = .2724$, thus 27% variance exists between these two variables.

Table 1
Descriptive Statistics

	Mean	Std. Deviation	N
reading fluency score (CWPM)	135.8704	41.23199	54
reading comprehension percentage	44.4074	20.35303	54

Table 1.1
Correlations between variables

		reading fluency score (CWPM)	reading comprehension percentage
reading fluency score (CWPM)	Pearson Correlation	1	.522**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	90104.093	23238.852
	Covariance	1700.077	438.469
	N	54	54
reading comprehension percentage	Pearson Correlation	.522**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	23238.852	21955.037
	Covariance	438.469	414.246
	N	54	54

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

Discussion

The study investigated reading fluency, reading comprehension and correlation between these variables. The findings of the study support the study of Nathan and Stanovich (1991) and

Rasinski (2000) who opined that fluent readers utilize less cognitive energy on word recognition and their more concentration is on comprehension. This current study calculated the mean score of reading fluency. The average fluency score of students was 135 WPM, compared to studies conducted in other contexts the average fluency score of this study participants was very low. Starch (1915) calculated the average reading rate students from grade 1st to grade 8th. The average fluency score calculated by Starch was grade 1st, 91 WPM, grade 2nd 108 WPM, 3rd 126 WPM, 4th 144 WPM, 5th 168 WPM, 6th 192 WPM, 7th 216 WPM and grade 8th 240 WPM. The average fluency score of current study participants (135) is less than average reading fluency score of 4th grade students (144 WPM), participated in the Starch's study.

Table 2

Average reading speed reported by Starch in 1915

Grade	1	2	3	4	5	6	7	8
WPM	90	108	126	144	168	192	216	240

Hasbrouck and Tindal (1995) calculated the average reading rate students from grade 2nd to grade 5th. The average fluency score calculated by Hasbrouck and Tindal was, grade 2nd, 94 WPM, grade, 3rd 114 WPM, 4th 118 WPM and grade 5th 128 WPM. The average fluency score of current study participant (135 WPM) is approximately same as the average reading fluency score of 5th grade students (128 WPM), participated in the study of Hasbrouck and Tindal.

Table 2.2

Average reading speed reported by Hasbrouck and Tindal in 1992

Grade	2	3	4	5
WPM	94	114	118	128

Hasbrouck and Tindal (2005) calculated the average reading rate students from grade 2nd to grade 5th. The average fluency score calculated by Hasbrouck and Tindal was, grade 1st grade 59 WPM, 2nd, 89 WPM, grade, 3rd 107 WPM, 4th 125 WPM, grade 5th 138 WPM, 6th 150 WPM, 7th 150 WPM and grade 8th 150 WPM. The average fluency score of current study participant (135 WPM) was less than average fluency score (138 WPM) 5th grade (primary level) students participated in the study of Hasbrouck and Tindal.

Table 2.3**Average reading speed reported by Hasbrouck and Tindal in 2005**

Grade	1	2	3	4	5	6	7	8
WPM	59	89	107	125	138	150	150	150

The study also supports Grabe (2009) who claimed that in L1 context a fluent reader reads 250 to 300 words per minute (WPM) because of familiarity with L1 syntax. In L2 context the results obtained have variations, readers in most cases are unable to read with the speed of 250 to 300 WPM, as they are unfamiliar with L2 syntax. L2 syntax complexity and poor decoding skills are the factors affecting reading rate. Successful L2 reading requires the same rate as L1 i.e. 250 to 300 WPM. The participants of the current study were unable to read with such reading rate and resulted in poor comprehension performance i.e. 44%.

Afore mentioned studies were mostly conducted in L1 or ESL contexts, thus the participants of these studies were good in reading fluency. This study was conducted in EFL context; thus, participants could not perform well comparatively. Mostly, students were facing problems with word recognition. Mispronunciation was also commonly observed while measuring fluency. Due to negligence of reading instructions, poor decoding skills, teachers and student's non-familiarity with reading fluency, less exposure to reading, lack of instructions and L2 syntax complexities students were unable to perform well in reading fluency and comprehension.

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