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Exploring the Relationship of Vocabulary and Syntax Knowledge with Urdu Reading Comprehension of Primary School Students

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Abstract

The study targeted reading comprehension to explore not only its acreages but also to determine their association with the purpose of teaching the Urdu language. The objective of the study was to find out the level of vocabulary and syntax knowledge in the Urdu language to determine their relationship with Urdu reading comprehension at the primary level. Correlational design under the umbrella of the quantitative method was used. A total number of 275 students were conveniently sampled from public primary schools of the district Sargodha-Pakistan. A test of 50 marks based on PEC (Punjab Examination Commission) papers was the tool to collect the data. The items were selected with the consultation of educational experts and item developers. On the basis of the findings, students were categorized against four levels of achievement namely poor, average, above average, and good. Out of these four levels, the good level was at the top while the "poor level" was the least preferential. It was found that about half (48.36%) of the students had a good level of Urdu vocabulary and three-fourths of the students (72.36%) had a good level of syntax knowledge in the Urdu Language. Furthermore, the vocabulary correlation was positive at .57, and the syntax knowledge correlation was also positive at .71 with Urdu reading comprehension. Our study recommends that there is a need to improve all acreages of comprehension particularly vocabulary and syntax knowledge which contributes positive development of Urdu reading comprehension of primary school students in Sargodha-Pakistan.

Keywords: Syntax Knowledge, Vocabulary, Reading Comprehension

Introduction

Urdu is our National language and it is compulsory as a subject up to intermediate classes and optional for bachelor classes. Almost every university in Pakistan is offering a master's degree in the Urdu language. All National educational policies have put great emphasis on the Urdu language. The current study has made its contribution by seeking out acreages of comprehension and their association with the Urdu language.

Reading is an important component of every language and linguistic experts focused a lot on the reading abilities of a language learner. Different linguist experts defined reading comprehension in different words. According to Snow (2002), understanding reading is the progress of extracting and creating the sense of a printed message through interaction and participation. Comprehension of reading is the talent of learners to cognize and construct sense from the written material. The reading comprehension process is not simple but it is a difficult mental process that facilitates readers to create a cognitive demonstration of the writing (Broek & Espin, 2012). According to the report of the Program for International Students Assessment (PISA) 2015, nearly twenty percent of students in Organization for Economic Co-operation and Development (OECD) countries be unsuccessful to meet the standard level of reading expertise. Since 2010, learners' reading aptitude means through most OECD states has not enhanced or even weakened (OECD, 2016). In China, pupils of Chinese language reading comprehension have a tendency to worsen in pitiable rural zones in secondary school (Xuan, 2012). Comprehension of text is not depending on the talents of the student, for example, background experience, and working memory, however, additionally going on linguistic measures, like fundamental understanding abilities, interpreting, vocabulary, sensitivity to message structure, inference, and inspiration. Comprehension additionally necessitates the compelling practice
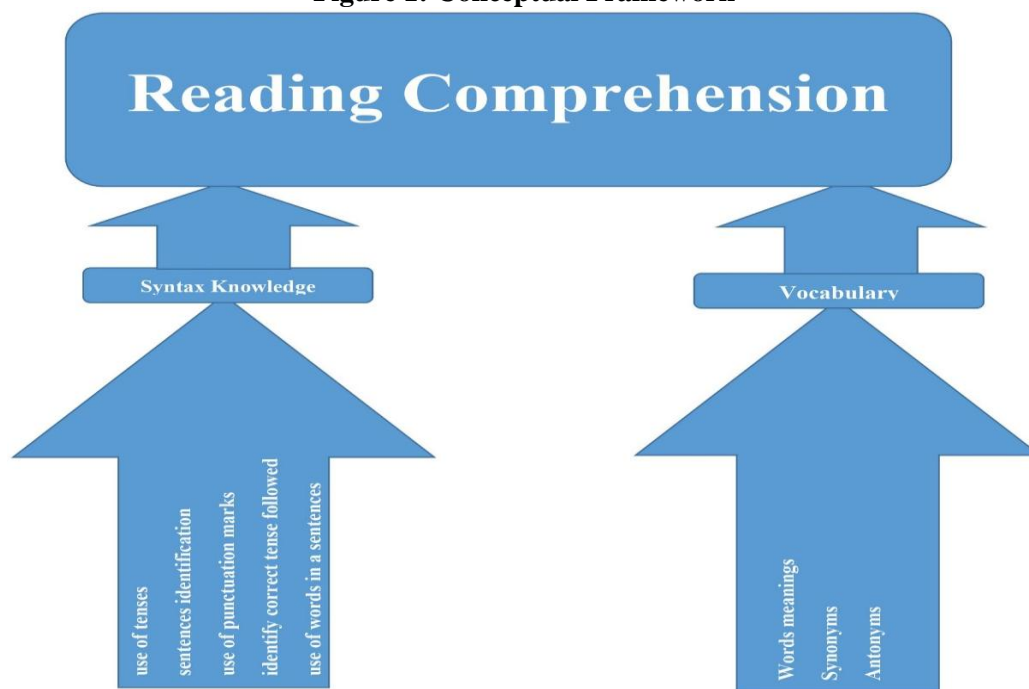
of key cycles, for example, metacognition and comprehension checking. As reader development of their comprehension aptitudes, they can improve productively from the step of imagining how to read to a conclusive objective of reading to acquire (Yovanoff, Duesbery, Alonzo & Tindal, 2005).

Reading comprehension plays a pivotal character in the improvement of any language. Reading is one of the essential ability in accordance to master skills with the responsibilities in using a language, children must capture it other than writing, speaking, and listening for communication and acquire information well (Gurning & Siregar 2017). In this study lexical modal is used in which lexical knowledge was widely accepted to have at least two different dimensions: breadth and depth (Schmitt, 2014). There are numerous research studies available on the importance of second language vocabulary knowledge on the learners reading comprehension. Research suggests that vocabulary knowledge plays a major role in the achievement of good language skills and language comprehension (Laufer, et, al., 2004). Laufer (1997) also stated that understanding of given vocabulary in the text is strongest importance for text comprehension. Two most significant traits in the vocabulary knowledge that have been widely discussed in the literature are described as the breadth and depth dimensions of vocabulary knowledge (Kiavanpanah & Zandi, 2009; Zahang, 2012). The concept surrounding in the breadth of the vocabulary is that in order for learners to soundly comprehend the text (Laufer, 1997) and the depth of vocabulary knowledge includes pronunciation, syntax and morphological properties, meaning, frequently and register (Qian, 1999). Apart from the effect of vocabulary knowledge, the literature also discusses the importance of the syntax knowledge in second language comprehension. Syntax knowledge has great connection to reading comprehension and students should know the syntax construction of sentences in order to reading comprehension (Gottardo et. al., 2018). Similarly, there is noted that reading comprehension is mostly conceptual which is affected by the knowledge of grammar either directly or indirectly (Jung, 2009).

Students who come to school have different language backgrounds. Some come from Punjabi-speaking families and some of them come from Urdu and very few are from an English background. As Urdu is our national language and compulsory as a subject from playgroup to class 12th. Therefore, it is necessary to comprehend. Different researches show that if a student faces unfamiliar words in a language, they face many difficulties to comprehend the text and are unable to understand what is in the text. Mostly found that if we face an unfamiliar term we consult a dictionary or ask fellows so that we can understand that term or word. Thus understand a text of Urdu language it is necessary we have familiar with the terms. Understanding unfamiliar terms or words is included in the vocabulary. Children require vocabulary for understanding written work. Hence vocabulary contributes a significant role in the comprehension of reading (Roth, Speece & Cooper, 2002). And the syntax is word order to create a sense of a written message (Muin, 2019). Without proper word order or missing words from a sentence, it is difficult to understand the message which is hidden in a sentence. This research highlights the part of vocabulary and syntax in Urdu reading comprehension. This study also highlights the need for continued attention to the vocabulary development of Urdu language learners and reviewed the research on means to develop the vocabulary knowledge of Urdu language learners.

Proposed National Education Policy framework (2018) stated that in Pakistan the inequality in acquirement of linguistic skills is one of the greatest divisive elements for the purpose of education skills to be applied in jobs. Currently most of the jobs require English language proficiency hence, educational institutions are neglecting to emphasize on Urdu which is our national language. This study has explored that either syntax knowledge and vocabulary level can affect the comprehension level of students. In all National education policies, the emphasis was given to Urdu language. Furthermore, in 2015 Supreme Court of Pakistan passed an order to implement Urdu as an official language. Hence, to use Urdu language for official purpose it is necessary for the educational institutions to focus upon the development of Urdu comprehension in students.

Figure 1: Conceptual Framework

Figure 1: Conceptual Framework

Reading Comprehension

Syntax Knowledge — use of tenses, sentences identification, use of punctuation marks, identify correct tense followed, use of words in a sentences

Vocabulary — Words meanings, Synonyms, Antonyms

Statement of the Problem

Numerous research studies revealed on reading comprehension of target language (L2) especially on English. L2 mean the language which is not their mother language. People mostly learn English as L2. It is a fact that any language plays vital role to learning a tongue. It is fundamental for students to have a better reading comprehension in language to perform well in learning and to develop interest in that particular language. Studies also support that the vocabulary knowledge of targeted language plays their important role in reading comprehension. As Urdu is a national language in Pakistan and it is necessary to comprehend Urdu to talk with people across various provinces of Pakistan. Our study aimed to find out connection of syntax knowledge and vocabulary on reading comprehension of national language (Urdu) of grade five students. The study was extended to explore how syntax and vocabulary contribute towards reading comprehension in Urdu language.

Objectives

Objectives of the study were to:

1.   examine the vocabulary level of Urdu language of students at grade five.
2.   examine syntax knowledge of students at grade five.
3.   determine the relationship between vocabulary and Urdu reading comprehension
4.   determine the relationship between syntax knowledge and Urdu reading comprehension

Research Questions

1.   What is the percentile of students having good vocabulary level of Urdu language?
2.   What is the percentile of students having good syntax knowledge level of Urdu language?
3.   Is there relationship of Urdu vocabulary and Urdu reading comprehension of grade five students?
4.   Is there relationship of Urdu syntax knowledge and comprehension of Urdu reading of grade five students?

Significance of the study

Although there have been many studies conducted on second language (English) on the importance of vocabulary and syntax in comprehension but there is huge grey area yet to be explored in Urdu language. Our study was based on the grade five Urdu reading comprehension which can be of significant for Urdu Language Teachers (ULT). Moreover, the role of the vocabulary and syntax helps to recognize the level of thinking involved in reading comprehension of any language. Present study is distinctive in such a way because it was based on national language and mostly people learn it with first language and also it has relevance to mother tongue as well in Punjab-Pakistan.   This study is helpful for policy makers while developing policy related to national language and educational programs. This is also useful for text book writers while writing a text book of Urdu. The study is also

beneficial for teachers while teaching Urdu language at primary level which will ultimately contribute to students' performance in Urdu Language in Punjab-Pakistan. This study is supportive for Urdu language teachers in such a way that as a language teacher they know about the importance of syntax and vocabulary for developing reading comprehension of Urdu language. It will also help out while using methods for teaching reading comprehension in Urdu.

Review of Related Literature

Muin (2019) referred to syntax as the prearrangement of words and phrases to create a well-formed meaningful sentence of a language. The syntax is the grammatical structure of words and phrases to create a coherent message. The syntax is roughly defined as a word order to create a meaningful sentence in a language so that the message can understand in a proper manner. So syntax also plays a vital role in reading comprehension of language. When words are not in proper order then it creates an ambiguity in the message and the reader or listener cannot understand the message. Thus the word order in a sentence is important to understand the message.

Fundamental to any conceptualization is that reading comprehension is a complex process in which readers hypothesize mental illustrations of the texts they are reading, generating inferences about the texts with their prior knowledge, and establishing reading goals associated with the situational context (Britt, Rouet & Durik, 2017). Reading comprehension obliges the development of a rational mental portrayal of the data in the content. Reading includes three organized components the user, the content, and the action, all arranged into a more extensive sociocultural setting. The intricacy inborn in reading perception has brought about a huge number of reading models and systems that endeavor to represent the different cycles that lead to understanding appreciation: for instance, actuation of earlier information and reconciliation of approaching data with presently dynamic memory substance. Different models and systems endeavor to represent the segments that establish understanding perception, like translating, jargon, and language comprehension (Butterfuss, Kim & Kendeou, 2020). Getting importance from the content is depicted as reading comprehension. Reading comprehension is viewed as quite possibly the most complex exercise people can perform (Kendeou, McMaster & Christ, 2016). Language acquisition is a dynamic course of action that requires learners to acquire target language vocabulary on a regular basis. In order for learners to perform properly in a given situation, they must acquire sufficient words to build their mental vocabulary. It had discovered that vocabulary knowledge is known as one of the greatest indicators of reading capability and the capacity to extract new features from texts in both first and second languages (Siu, & Ho, 2015). The results of the study introduce the notion of 'comprehension vocabulary' and suggest that a recall test is more appropriate for quantifying sight vocabulary while a recognition test is more appropriate for measuring comprehension vocabulary (Laufer, & Aviad–Levitzky, 2017). If the number of words in a sentence were unfamiliar then it creates ambiguity in comprehending of the sentence. When a student feels difficulty in understanding a sentence it may cause in understanding a lot of information in a text.

A research study which is conducted on first and second languages comparatively indicated that there is a difference between literacy skills and vocabulary contribution in reading comprehension while learning first and second languages. There is no or less contribution of literacy skills and vocabulary on reading comprehension in learning a first language while there is a great contribution of literacy skills and vocabulary on reading comprehension in second language learning (Raudszus, Segers & Verhoeven, 2021). The results of the study showed that receptive vocabulary and pseudo-word reading in English played a significant role in English reading comprehension. These results add to the important evidence of receptive language skills and decoding skills in reading comprehension among multilingual children from low-middle-income countries (Wawire, & Zuilkowski, 2021).

The association of performance between interpretation comprehension and word knowledge has been proven in a variety of foreign language studies. There were 37 students of the secondary level learning English in Singapore, investigated the sway of words in reading comprehension (Zhang & Annual, 2008). Students having vocabulary knowledge were assessed using the Vocabulary Levels Test. The results revealed a link between their reading comprehension and scholars' knowledge of terminology at 2000 to 3000-word levels as well. This demonstrates a strong link between reading comprehension and vocabulary knowledge in English. Chang and Gould (2008) found a high link between reading comprehension and vocabulary, as well as between chief print knowledge and reading speed. Lexis knowledge is essential for reading conception because it acts in the same way

that background knowledge does. Decoding, which is an important element of reading, is made easier with vocabulary knowledge (Qian, 2002). These studies are conducted on a second language, especially on English as a foreign language. But this study found a relationship in vocabulary with respect to the national language Urdu. So this study is unique in this sense.

The syntax is an important part of human language. Language is frequently described as a logical relationship between particular sorts of gestures and meanings. The signals in verbal language are spoken, although those in signed language are manual (Robert & Valin, 2004). It is not true that every potential denotation is able to represent a single, unbreakable gesture, whether vocal or labor-intensive. Rather, each language contains a set of meaning-bearing pieces and a variety of methods to combine them to communicate distinct meanings, and these combinations are meaningful. The subsequent two English sentences entailing "Chris handed the notebook to Dana and Dana gave the notebook to Chris". These mutual consist of the identical meaning demeanor parts, i.e. words, however, their denotation differs because the words are assorted differently. These scores of combinations are in the right place under the heading of syntax; the two phrases differ not in terms of the words they include, but rather in terms of the grammar handbook they use (Robert & Valin, 2004). In addition to lexical growth Syntactic growth, is important for reading comprehension (Poulsen & Gravgaard, 2016). The syntax is a set of principles that have power over the way words are joined to form clauses, phrases as well as sentences to pass on meaning (Kamhi & Catts, 2012). Many of the phrases in the subject of science chapter are long and complicated, having multiple words and clauses that are structured to communicate certain meanings. Regardless of this, the significance of syntax in reading comprehension is habitually underestimated (Scott, 2009). The Significance of the syntax in the reading becomes significant in the way each clause imparts special information (Nippold, 2016).

In empirical investigations, the existence of a link between syntactic awareness and reading comprehension has a long and thoroughly established history (Gelderen et al., 2003). For example, adult language learners' reading might be caused by a poor syntactic acquaintance and a basic lack of understanding of syntactic boundaries. According to Grabe (2009) "time, certainty, place, identify-ability, event ties, and noun linkages" (p. 203) are among the benefits of syntactic knowledge to be used in language reading comprehension. There is another study conducted on Chines and English languages both at the same time and found that morphological awareness plays a more important role than phonological awareness and orthographical skill in both Chinese and English script reading comprehension (Dong, Peng, Sun, Wu & Wang, 2020). Shiotsu and Weird (2007) conducted separate three investigations in England and Japan with tertiary-level Japanese English learners. The findings of all three research demonstrated that syntactic knowledge provided significantly greater predictive insights into learners' reading conception than vocabulary knowledge. The above-mentioned studies are conducted on a second language especially English as a foreign language. But this study is unique in this sense because it is conducted in the National language Urdu to find the association between syntax knowledge and vocabulary on reading comprehension.

Method and Procedure

The study is quantitative in nature. A descriptive and correlational research design was used. In this study, all students from public sector schools of grade five districts Sargodha population of this study.

Sample and sampling

To select a sample, the researcher used a convenient sampling technique i.e., the sample was selected on the basis of its availability at the point of time when the researchers were collecting the data. In this study, the researcher collected data from 16 different schools out of which 8 schools were for boys and 8 were for girls. A total of 275 participants were included in the study who were willing to participate.

Instrument

A test of 50 marks was developed using the previous PEC format (Punjab Examination Commission). The PEC system was introduced in Pakistan in 2005 and in 2006 conducted the first 5th-grade examination with the collaboration of UNICEF (United Nations Children Emergency Fund). This test was comprised of three parts. Part one was comprised of 15 questions related to vocabulary, part two was comprised of 25 questions related to syntax knowledge and part three was comprised of 10 questions related to reading comprehension. All 50 items were multiple choices except 5 which were linked to the usage of words in a sentence. The detailed items breakup is available in table 1.

Table 1. *Item Breakup*

Sr. No.	Name of variable	Frequency	No. of Items
1	Vocabulary	15	1-15
2	Syntax Knowledge	25	16-40
3	Reading Comprehension	10	41-50

Reading comprehension test

This test includes two parts in which one in paragraph form and the other in riddle form. Each part consisted of five multiple-choice questions. This multiple choice question covers various levels of comprehending the text i.e. comprehending the whole text.

کالا پتھر	اعلی پتھر	سفید پتھر	مقدس پتھر	حجر اسود کے معنی ہیں

Vocabulary evaluation test

A multiple-choice vocabulary test was designed to gauge the complexity of vocabulary in the students in 5th grade. A statement underlining the specific vocabulary item was written as a question and then followed by four options as an answer in which one is correct. The total number of items in this part was 15 and each correct answer was awarded 1 mark.

| شور مچانا	گیت گانا	آزاد گھومنا	اونچا اڑنا	پرندے **چہچہا** رہے ہیں۔

Syntax knowledge test

To investigate the syntactic knowledge in reading comprehension a test contains various types of questions Each question measures the syntactic knowledge which develops with the use of textbook model papers. This test helps to measure the syntactic knowledge which further contribute to check the role of syntax knowledge on reading comprehension. At this section 25 items were used to measure the syntax knowledge each items contains one marks. At this section researcher used five sub-factor such as use of tenses, identification of correct sentences, use of punctuation marks, identification of correct tense followed by previous sentence and use of words in a sentences.

سکول جاوں گا	سکول جائے گا	سکول جاتا تھا	سکول جاتا ہے	علی جماعت چہارم کا طالب علم تھا، وہ ہر روز---------

Data Analysis

For the purpose of data analysis researcher used excel sheet analysis and used SPSS for independent sample t-test to measure the correlation among variables. For measuring the level of vocabulary and syntax knowledge researcher used four sub-categories of students. These categories are based on students' obtained marks. The researcher labeled poor students whose obtained marks percentage is between 0-25, researchers labeled as below average students whose obtained score percentage is between 26-50, researchers labeled as above average students whose obtained marks percentage is between 50-75 and labeled as good whose obtained marks percentage is 75-100. On the basis of this ranking, students' level of vocabulary and syntax knowledge were measured. An Independent sample t-test was used to measure the affiliation of syntax knowledge and vocabulary with reading comprehension.

Graph 1: *level of vocabulary and syntax knowledge*
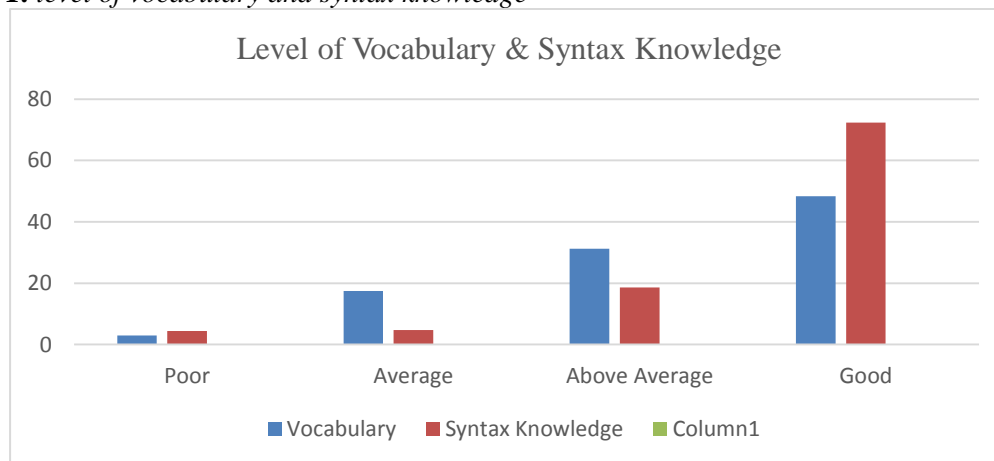
Graph 1 shows the statistics related to the vocabulary and syntax knowledge level of the Urdu language. A total number of participants 275 out of which the students having vocabulary level labeled as "good" in above graph 1 constitute 48.36 % in vocabulary and 72.36% in syntax knowledge. On the other hand, 51.64% of students were not meeting the "good level" in vocabulary and 27.64% in syntax knowledge. The results of the study indicated that over half of the students were having difficulty with vocabulary knowledge and one-fourth of the students in syntax knowledge. It may increase difficulty in understanding the text.

Table 2: *Relationship between vocabulary and reading comprehension of Urdu language*

Correlation between vocabulary and reading comprehension

		Vocabulary	Comprehension
Vocabulary	Pearson Correlation	1	.577[**]
	Sig. (2-tailed)		.000
	N	275	275
Comprehension	Pearson Correlation	.577[**]	1
	Sig. (2-tailed)	.000	
	N	275	275

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

Table 2 shows the association between vocabulary and reading comprehension of students. Pearson correlation was applied and outcomes display that there was a positive relationship between vocabulary and comprehension of Urdu reading. The sig. (2-tailed) value was .000 which rejects the null hypothesis and indications that affiliation exists between vocabulary and reading comprehension.

Table 3: *Relationship between syntax knowledge and Urdu reading comprehension*

Correlation between syntax knowledge and reading comprehension

		Syntax knowledge	Reading Comprehension
Syntax knowledge	Pearson Correlation	1	.712[**]
	Sig. (2-tailed)		.000
	N	275	275
Reading Comprehension	Pearson Correlation	.712[**]	1
	Sig. (2-tailed)	.000	
	N	275	275

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

Table 3 shows the affiliation between syntax knowledge and reading comprehension of grade five students. Pearson correlation was applied and outcomes illustrated that there was a positive association at 0.712 between syntax knowledge and comprehension of Urdu reading. The sig. (2-tailed) value was .000 which rejects the null hypothesis and shows a relationship exists between syntax knowledge and reading comprehension.

The instrument used for data collection was valid and reliable. The content validity of the instrument was ensured by the experts of Urdu and Education from the university. Their feedback was incorporated to improve the instrument. The reliability of the tool was calculated by using SPSS version 22. The Cronbach Alpha was found to be 0.85 which shows the instrument used for data collection was reliable.

Discussion and Conclusion

Chang and Gould (2008) also discovered a high link between vocabulary and reading comprehension. Recent research in foreign language situations has discovered strong and favorable links between reading comprehension and vocabulary knowledge (Khosravi & Rashidi 2010). In a similar way to this research, this study also found a strong affiliation between vocabulary and reading comprehension. Another research which is conducted on first and second languages found there is no or less contribution of vocabulary on reading comprehension in learning the first language while there is a great contribution of vocabulary on reading comprehension in second language learning (Raudszus, Segers & Verhoeven, 2021). Results of our study contrasted with this research due to contextual differences. These contextual differences exist due to the close relation of the target language with their mother tongue The vocabulary of the target language (Urdu) and native language (Punjabi) overlapped each other but do not totally match. Urdu is not the first language of most students. Hence the result of our study did not totally match the above research study.

Brimo, Apel, and Fountain (2017) in adolescent English speakers, it was revealed that syntactic knowledge has a direct impact on reading comprehension and that syntactic consciousness has indirect implications on reading comprehension. Findings from the tiny number of research that have looked at the function of syntax in reading comprehension in second language learners, on the other hand, are congruent with findings from native English speakers' studies (Lipka & Siegel, 2012; Lesaux, Lipka, & Siegel, 2006). Shiotsu and Weir (2007) named syntactic knowledge as "one of the determining aspects" of reading comprehension and found an important affiliation between syntax knowledge and reading comprehension. Similarly, in this study the Pearson correlation value determined that there is a strong positive correlation between syntax knowledge and comprehension of reading ($r = .71$, $p > .01$). But we cannot deny the fact that some research found a weak relationship or even statistically insignificant relationship between syntax knowledge and reading comprehension (Nation, Clarke, Marshall & Durand, 2004; Susoy & Tanyer, 2018; Catts, Adlof & Weismer, 2006). Yet, the majority of the researchers agreed that these two variables are positively correlated which endorsed the results of this study.

On the basis of the findings, it was concluded that there is a positive connection between vocabulary and comprehension of reading. It was also found that syntax knowledge and Urdu reading comprehension are also positively correlated. Yet a positive association was established between comprehension of reading and vocabulary in this research as well (Kaivanpanah & Zandi, 2009; Read, 2000; Shiotsu & Weir, 2007; Zhang, 2012).

Recommendations

1.   It is recommended that teachers focus on teaching words meaning, synonyms, and antonyms to improve the vocabulary level of students.
2.   Public sector teachers should ask the students to keep the dictionary with them during school time and students should at least learn five new words on daily basis with meaning, antonyms, and synonyms.
3.   Students may develop their own dictionary while learning new words to keep a record and to revise already learned words.
4.   Teachers should keep focusing on the use of tenses, identification of the correct sentences, identification of correct tenses, use of punctuation marks, and use of words in sentences to improve students' syntax knowledge.
5.   To improve reading comprehension students should improve their vocabulary level and syntax knowledge in Urdu.
6.   It may help the teacher develop the reading test for their students, which is more suitable for their student's competence.

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