While-reading Strategies and Their Effectiveness on Reading Comprehension Skill: An Experiment on Secondary School Students in Pakistan

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Abstract

This quasi-experiment meant to realize productivity of while-reding strategies for the development of comprehension skill at secondary level students of public sector schools in Karachi, Pakistan. It was organized in two secondary schools following pretest posttest approach with experimental and controlled group. The 48 individuals underwent the experiment, who were tested for i) visualizing, ii) Skimming, iii) Scanning text, iv) Vocabulary identification, v) Making Connections, vi) Drawing Inferences, vii) Verifying Details, viii) Evaluating. SPSS and independent sample -t test were the data organization and analysis sources. According to the results, it seems that the experimental group performed better in the English reading comprehension test when compared to the control group. The suggested strategies were only introduced to the experimental group and not to the control group, which could be the reason for the difference in performance.

Keywords*: Reading comprehension, while-reading strategies, i) visualizing, ii) Skimming, iii) Scanning text, iv) Vocabulary identification, v) Making Connections, vi) Drawing Inferences, vii) Verifying Details, viii) Evaluating.*

Introduction

Today's educational challenges seek such strategic reading strategies, that facilitate readers to self-modify and self-monitor while reading between the lines, to find its rationale and apply critical reflection on the reading text. Therefore, students need to be facilitated with a variety of reading activities that accounted for effective reading comprehension strategies (Alghonaim, 2020). Students of government schools at secondary and higher secondary levels come across number of problems during English reading comprehension process. These problems arise from insufficient vocabulary, lexical hurdles, structural issues, language incapability, failure in schemata and so on so forth. Students. At the secondary and higher secondary levels of government schools, students often face various challenges when it comes to comprehending what they read. However, there are various strategies based on while-reading that can be used as effective tools to overcome these difficulties. By implementing these reading comprehension strategies, students can improve their understanding of texts and enhance their overall academic performance.

English enjoys the official language status in Pakistan. Considering its fundamental status, it is made compulsory for students up to graduation level across the country. On the contrary students at even undergraduate level in the province of Sindh struggle to comprehend their very own textbooks because of poor reading comprehension skills in English language (Younus & Khan, 2017). Applying the relevant strategies time and over again increases better connectivity with the written text, which facilitates them to connect with different ideas, understanding complex notions and reflect back to the text during reading. Therefore, the ESL educators are advised to apply such strategies that facilitate critical thinking and improve comprehension skills (Imawan, & Ashadi, 2019,).

Literature Review

While reading the targeted text, skilled reader employs various strategies on the basis of their personal reading exposure. While reading strategies have been classified into compensatory strategies and memory strategies (McGraw, & Mason, 2017, Abdelhalim, 2017). Reading teachers can employ various compensatory strategies to help their students improve their reading comprehension skills and perform better in assessments. These strategies are developed implicitly, and their ultimate goal is to provide students with additional support and resources to overcome any difficulties they may face while reading. Some of the most widely recognized

compensatory strategies include techniques such as rereading, summarizing, using context clues, and visualizing. By employing these strategies, reading teachers can help students enhance their reading abilities and achieve greater success in their academic pursuits.

Visualizing

Visualizing is a cognitive process of creating mental pictures or images of the written material, events, or personal experiences. This technique is particularly useful for students as it helps them to develop better reading strategies, improves their ability to organize information, and enhances their memory retention of the reading material. By creating visual representations, readers are better able to retain the textual information for a longer period of time, thereby facilitating their overall comprehension of the subject matter. (Bastug & Demirtas, 2016).

Skimming

Skimming is again a comprehension strategy, which meant reading for gist actually. Yépez Flores, (2020) highlights the purpose of skimming is to realize what a text is all about. The purpose of skimming is to satisfy readers curiosity about the reading text, rather than approaching to answer of particular questions. Skimming generally is of great importance in the eyes of the language reading experts. Like, Kong, J. (2019) states that skimming facilitates people in saving their time to confront many books with variety of meanings and of information.

Scanning

Scanning is one of the reading strategies with a purpose to reach to a particular piece of information. According to Foorman, Petscher, & Herrera, (2018) scanning refer strategies reading for particular points. Scanning is basically glancing quickly through a reding text in the search of specific piece of information.

Vocabulary Identification

Research has shown that effective vocabulary instruction is closely related to improved reading comprehension. In fact, vocabulary development and reading comprehension go hand in hand and play a crucial role in enhancing one's ability to comprehend text. One of the major challenges that students face while reading is the presence of unfamiliar words in the text. To overcome this challenge, students need to employ various compensation strategies such as using context clues, recognizing words with multiple meanings, understanding the denotative and connotative meanings of words, using parts of speech to infer meaning, and relying on their existing knowledge (schemata) to make sense of new vocabulary. By practicing these strategies,

students can improve their vocabulary skills and become better readers.. (Duncan, McGeown, Griffiths, Stothard, & Dobai, 2016)
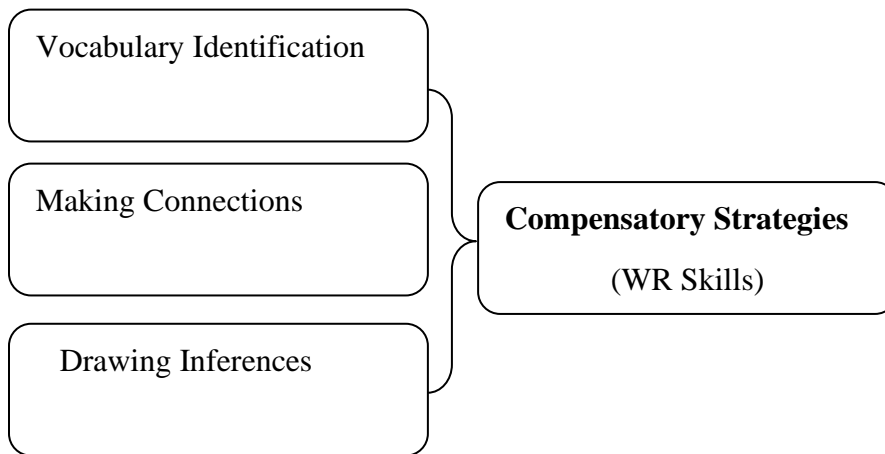
Making Connections

Making Connections is to read beyond the lines, where the reader looks at the current information of the reading text through their previous experiences (Asmara, 2019). The reader matches it with the other literatures or cultural and international matters to cultivate the meanings and develop the understanding of the author point of view. During while reading, readers take excerpts from the reading material and then write down their views for the chosen text that has a significant impact on the transition of comprehension (Riahi, & Pourdana,2017).

Drawing Inferences

Making inference is the bridging gaps between the reader and author thoughts. It means absorbing explicit views of the author (Asmara, 2019, Karimi, & Baradan, 2017, Anjum, Pathan, & Shah, 2021).Often the author implies something indirectly rather than expressing it directly. Then the responsibility of understanding lies on the inference skill of the reader to comprehend between the lines.

Figure:1.
Types of Compensatory Strategies (WR Skills)

While reading strategies are used in collaboration with other strategies like predicting, vocabulary identification, visualizing, making connection, drawing inferences, skimming, scanning etc. Most of the under discussed strategies are classified as memory strategies. Readers need to be well versed in preference of one strategy over other strategies. They should aware of

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selecting the appropriate time to employ such activities These strategies empower the learners to engage purposefully in the comprehension process (Al-Jarrah, & Ismail, 2018).
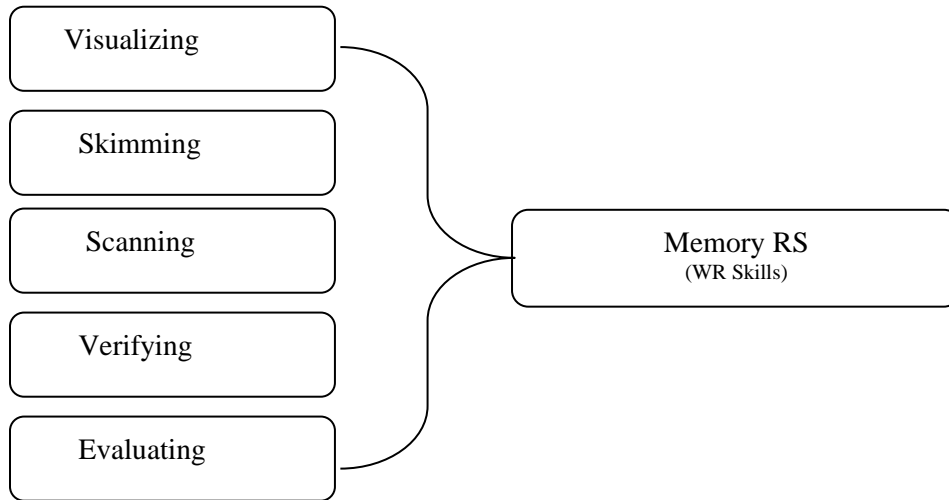
Verifying Details

According to Alenizi, (2019). varying details supports readers with identifying explicit information from the implicit ones. Readers through this strategy extracts the essence of the text, summarizing conceptual clues of the reading text and realizing relevance of ideas for successful reading comprehension.

Evaluating

While reading strategies engage readers in text evaluation which helps in understanding the message. At this stage instructor may rate the success or failure of these strategies. It is the phase of self-monitoring, confirming and clarifying. It reconciles the whole operation of reading. Readers generate questions while reading about the reading text. They summarize part of the text; develop mental image, explain unknown words and predict the following text. Gilakjani, & Sabouri, (2016) explain that through the meaning of prefixes, suffixes, and roots readers reach to possible interpretation. Where, they judge the text and comprehend it better. A number of researchers believe that while reading strategies are sources of cognitive skill. They are rewarding on the path of successful comprehension. Interactive reading strategies such as analyzing, highlighting, taking notes, identifying main ideas and drawing inferences are the part of while reading phase and have produced desired results in contemporary studies. Another exploratory study by Asmari, & Javid, (2018) to facilitate ESL coaches for their reading comprehension tasks. The findings reveal that while reading mixed with inferential and reorganization questions facilitate readers in developing reading comprehension. Effectiveness of while- reading strategies in developing comprehension is of great help, and proved that reading comprehension task based on while reading activities produced cooperatively better results (Samimi, & Sahragard, ,2018, Boardman, Vaughn, & Klingner, 2018, Al Roomy & Alhawsawi, 2019). Similarly, Ness (2016) has recommended making while reading activities part and parcel of teaching reading skill, which promote effective reading in students and enhance their level of comprehension. The findings further suggested that reading teachers must apply explicit teaching style during reading activities. Hence the above studies second the notion that while reading activities significantly support the comprehension process.

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Figure 2
Types of Memory Strategies (WR Skills)

Objectives:

1. To investigate productivity of while-reading techniques to help Karachi public secondary school students improve their reading comprehension abilities.

2. To emphasize the value of using interactive reading techniques to teach while-reading skills.

Hypothesis:

- H: The English reading comprehension skills of Karachi public secondary school students are positively impacted by while-reading strategies.

Research Methodology

This quasi-experimental study was built upon pretest posttest approach guided by Ary, Jacobs, Irvine, & Walker, 2018 approach. It begun with experimental and non-experimental groups of 96 pupils of grade (X) from two different public schools of District Korangi, Karachi. Three hours weekly each of the group was taught using grade X English textbook by Sindh Text Book Board, Jamshoro for designing while-reading cactivities. There were 11 questions total that needed to be answered in 2.5 hours. The test was subject to pilot study for the purpose of its validity and reliability. These tools were used to evaluate students' reading comprehension abilities following the use of post-reading techniques.

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Data Analysis

Table 1

Comparison of Experimental and Control group in Pretest

Factors	Group	N	Mean	S.D	df	t	P
WR	Experimental	48	6.56	3.718			
	Control	48	5.04	3.476	94	2.070	0.041*

*p<0.05

To assess the difference in the WR portion of the pretest in English RC skill between the experimental and control groups, an independent sample t-test was used. The examination was significant t (94) =2.070, p=0.041. The study's findings showed that the two groups' scores on the while-reading portion of the pretest differed significantly. Average mean of the experimental group is (M=6.56, SD=3.718) as compared to the average mean from control group (M=5.04, SD=3.476).

Table 2
A one-way Anova was conducted to compare the Pretest results in English reading comprehension skills of the both groups.

ANOVA (*Pretest*)	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	759.375	1	759.375	64.701	.000
While-reading Within Groups	1103.250	94	11.737		
Total	1862.625	95			

The pretest results of students' English reading comprehension skills in the experimental and control groups of public secondary schools were compared using a one-way ANOVA. An examination of variance revealed a noteworthy distinction between the outcomes of English while-reading abilities, F (1, 94) =64.701, p (0.000).

Table 3

Comparison of Experimental and Control group in Posttest

Factor	Group	N	Mean	Sd	df	t	P
while-reading	Experimental	48	16.50	2.617			
	Control	48	10.88	4.077	94	8.044	0.000*

*p<0.05

To determine whether there was a significant difference in the posttest results of students' English reading comprehension skill between the two groups, an independent sample t-test was carried out. It was significant, t (94) =8.044, p=0.000. Results of the study showed that there was significant difference among results of experimental and control group in posttest. Average mean of experimental group (M=16.50, SD=2.617) as compared to the average mean of control group (M=10.88, SD=4.077).

Table 4
A one-way Anova was conducted to compare the Posttest results in English reading comprehension of the both groups.

ANOVA (*Posttest*)		Sum of Squares	df	Mean Square	f	Sig.
While-reading	Between Groups	759.375	1	759.375	64.701	0.000*
	Within Groups	1652.583	94	11.737		
	Total	1862.625	95			

Discussion

The results of the pretest and posttest closely match the research questions and hypothesis. The interactive reading approach aligned with while reading strategies were used in the test's design. For control group traditional strategy was employed whereas the experimental group received instruction using interactive strategy-based approach. SPSS was used to analyze the data. One-way Anova and independent Sample t-tests were used to compare the outcomes. The dada revels significant improvement in the results of the experimental group.

The independent sample t-test was used to compare both groups performances. The tabled shows, t (94) =2.070 and p=0.041. Average mean from experimental group is (M=6.56 and SD=3.718) as compared to the average mean from control group (M=5.04and SD=3.476). Therefore, it was determined that there was no discernible difference between the two groups' skills and abilities. A one-way ANOVA compared the pretest results of the both groups. An analysis of variance showed that there is a significant difference between results, F (1,94) =64.701, p (0.000),

Finally, the independent sample t-test evaluated the while-reading results of students in posttest. The test was significant, t (94) =8.044 and p=0.000. Average mean from experimental group (M=16.50 and SD=2.617) as compared to the average mean from control group (M=10.88,

SD=4.077). A one-way ANOVA showed the posttest results. An analysis of variance highlighted significant discrepancies between results of while-reading skills, F (1,94) =64.701, p (0.000).

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