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Author(s):	**Nargis Nadeem** **Irfana Omar**
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The Use of Reading Comprehension Strategies and their Effects on Academic Achievement of Students – A Case Study

Nargis Nadeem [1]
Irfana Omar [2]

Abstract

The purpose of this study was to identify the types of reading strategies used by first year college students for reading different materials and their effects on students' academic performance/achievement. The sample of the study consisted of 269 first year students of different departments of Arts and Humanities group at Government College (Wahdat Road), Lahore. IELTS' Reading Comprehension Test (Academic/General) was used to assess the reading comprehension skills of students. Meta Comprehension Strategy Index (MCSI) by Schmitt (1990) was used to assess the level of awareness and the use of reading comprehension strategies. Data was analyzed using SPSS and was graphically presented to provide a clear understanding of results which indicated the lack of awareness about reading comprehension strategies as a key factor leading to the poor performance of students in the reading comprehension test. The study contributes scholarly in the existing literature by accentuating the need to make instruction about reading strategies compulsory in English language classrooms. It will increase the academic success of students and will also provide them with better job opportunities in future.

Keywords: cognitive reading strategies, metacognitive reading strategies, RCT (Reading comprehension Test), RSQ (Reading Strategy Questionnaire).

Background

The globalization of English language has a tremendous impact in every field of life; be it political, social, economic or educational. The problem plaguing Pakistani students at college level and obstructing them in achieving excellence in academic and professional fields alike is their low proficiency in English language. EF English Proficiency Index (2016), while comparing English skills between 72 countries, ranked Pakistan at number

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[1] Nargis Nadeem, Lecturer, University of Central Punjab, Lahore, Pakistan.
[2] Irfana Omar, Assistant Professor, University of Central Punjab, Lahore, Pakistan.
Corresponding Author: Irfana Omar: <*irfana.omar@ucp.edu.pk* >

48 (very low proficiency) as compared to other Asian countries such as India which stands at 22 (moderate proficiency) and Malaysia which stands at 12 (high proficiency).The failure rate in the examination of English as a subject at college level is quite high in Pakistan. Despite the massive input into the teaching of English language, national results are abysmally poor (Abbas, 1998; Mansoor, 2004). According to BISE Lahore, in 2015 only 45.11% students were able to pass English as a subject in the intermediate examination (Humanities group). This percentage further declined in 2016 to 42.38% and that is an alarming situation. The high rate of failure and low proficiency in English leads to lesser opportunities for white collared jobs in future and also negatively impacts students' morale (Malik, 1996; Mansoor, 2004).

2. Literature Review

English language is no doubt the key for international understanding and world regulation, the phenomena being called 'globalization' (De Mejía, 2006; Correa & González, 2016). Major international and transactional organizations, such as, INTERPOL and UNITED NATIONS ORGANIZATION have a policy of including English language in their required competencies (Usma, 2009). At present, no nation, however strong it may be, can remain unaffected by the globalization of English language (Correa& González, 2016). It is a matter of being globally included or excluded and certainly Pakistan has no choice but to accept the emergence of English language as a tool to survive in the present world (Esmail, Ahmed & Noreen, 2015). Coleman (2010) suggests a realignment of English in Pakistani curriculum as English remains a preserve of the country's elite minority who can afford English medium higher education and consequently become eligible for highly paid jobs (Lotbiniere, 2010). Although the government of Pakistan seeks to widen access to English by improving the quality of English language teaching in public schools, the lack of provision of effective teaching and teaching resources has made the situation worse and learners have failed to make progress in even Basic English courses (Shamim, 2011). English is the language used in the world of academia and English language has entered various disciplines at all levels in Pakistan. However, despite studying English for many years, Pakistani college and university students lack proficiency in English (Esmail et al., 2015).

All the four skills of language proficiency – reading, writing, listening and speaking – are distinct but strongly related and it is difficult to assess one skill independently of others (Powers, 2010). Although a 'reading' or 'listening' test alone does not provide a comprehensive assessment of a person's proficiency in a language, it still provides an insight into a specific level of a person's proficiency (Powers, 2010), which is "essential to function in our society" (Duane, 2002) and it is considered the most important academic language skill (Grabe & Stoller, 2002; Bhabha, 2013). It is a psycholinguistic

process that involves decoding written material and constructing meaning (Goodman**,** 1967; Smith, 2004). Reading is actually an interaction between a text and a reader (Alderson, 2000; Bhabha, 2013; Smith, 1984). Different readers may understand the same text differently depending upon their goals and interests (Rumelhart, 1985; Stanovich, 1980).

The "product" of the reading process is comprehension (Barry & Lazarte, 1995; Gladwin & Stepp-Greany, 2008) and a reader continuously shifts focus from one approach to another to better comprehend the text, sometimes using a top-down approach to predict the probable meaning and sometimes moving to the bottom-up approach to check the accuracy of his/her understanding (McNeil, 2012; Nuttall, 2005). Alvermann and Phelps (1998) support the interactive model of reading which implies that readers continuously try to connect new vocabulary to their prior knowledge of the language, use decoding, apply bottom-up and many other compensatory skills (Akbari, 2014). Students lacking proficiency in the reading skill are likely to face academic difficulties, failure to clear examinations on time and less chances of economic success in future (Willinsky, 2017).

The findings of other similar studies indicate that most of the students use surface learning strategies as compared to deep learning strategies that can help them to understand the course material better (McEwan, 2007). "Students often mistakenly believe that they are reading though what they are actually engaged in is a process called 'mindless' reading" (Schooler, Reiche & Halpern, 1996; McEwan, 2007). "The opposite of mindless reading is what highly effective readers do, that is, to comprehend the text with the help of cognitive strategies at a deeper level" (McEwan, 2007). Cognitive strategies are mental processes used by skilled readers to extract and construct meaning from the text and students' reading comprehension can be improved by introducing them to seven cognitive strategies including activating, inferring, monitoring, questioning, selecting, summarizing and organizing (McEwan, 2007).

Students often use 'cognitive strategies' side by side with 'metacognitive strategies'. Metacognition is often simply defined as "thinking about thinking" (Livingston, 1997). Metacognition actually refers to higher order thinking skills which involve active control over the cognitive processes involved in reading and learning. It involves self-monitoring, regulation and planning and also reflecting on the outcomes (Brown, 1987). Cognitive strategies are used to understand a text while metacognitive strategies are used to ensure that the goal of reading the text has been achieved and both of these processes overlap with each other (Robert & Erdos, 1993).

The reality is that college classrooms are filled with mixed ability students who could benefit from specific strategy instruction embedded into their courses. The purposeful application of reading comprehension strategies leads

to a deeper comprehension of text (IRA 2007; McEwan, 2007). Many researches show a strong relationship between students' comprehension, learning strategy used and their GPA, implying that students with low GPA use fewer reading comprehension strategies (Taraban, 2014; McEwan, 2007).

3. Research Methodology

3.1 Statement of the Problem

This study was carried out at Government College (Wahdat Road), Lahore, Pakistan to identify the level of awareness of students about the use of reading comprehension strategies and their consequent effects on their reading comprehension and academic performance. The research questions are,

1.   What is the current status of English reading comprehension of students at college level?
2.   To what extent students are aware of reading comprehension strategies and their effective usage?

3.2 Instrumentation

The study used standardized (IELTS) reading comprehension test from general category,

Sample paper 6 (2016). Only part no. 1 was selected which consisted of a reading passage and 15 reading comprehension questions requiring students to find and match the main idea of the small paragraphs within the reading passage and to make inferences based on the information provided to them. Moreover, a standardized questionnaire, that is, Meta Comprehension Strategy Index (Schmitt, 1990) was used to investigate the level of awareness and the use of reading comprehension strategies by students. The questionnaire was divided into three sections. Part I (consisting of 10 items), Part II (consisting of 10 items) and Part III (consisting of 5 items) collected information about 'pre-reading', 'while reading' and 'post-reading' strategies, respectively. All items had 4 options as possible choices, among which students were to select only one option which best described their response.

3.3 Sampling Strategy

Purposive sampling was used to select students from different departments at the said college. Purposive sampling is a non-probability sampling technique which helps the researcher to select a sample that can provide the relevant data quickly and effectively (Tongco, 2007). Each one of the 6 sections of the first year class at the college comprised approximately 60 students. The number of students selected from each section depended upon the students' presence at the time of the study. Cluster sampling was used for choosing 42 students from section A, 45 students from section B, 51 students from section C, 49 students from section D, 40 students from section E and 42

students from section F, respectively. In total, 300 questionnaires and reading tests were conducted but later on 278 questionnaires and 269 reading tests were found to be complete. An equal number of questionnaires and reading tests, that is 269, were selected to check and tabulate the results. The data were analyzed through SPSS 21 and a battery of advanced statistical techniques was used to analyze the data.

4. Data Analysis

Response Type	Q.1 %	Q.2 %	Q.3 %	Q.4 %	Q.5 %	Q.6 %	Q.7 %	Q.8 %	Q.9 %	Q.10 %	Q.11 %	Q.12 %	Q.13 %	Q.14 %	Q.15 %
Blank	9	10	10	6	5	6	7	8	5	41	34	35	19	38	38
Correct	70	31	30	79	69	60	21	29	66	35	32	39	65	17	36
Incorrect	21	59	60	15	26	34	72	63	29	24	34	26	16	45	26
Total%	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.1 Frequency Analysis of Reading Comprehension Test

Table 1:
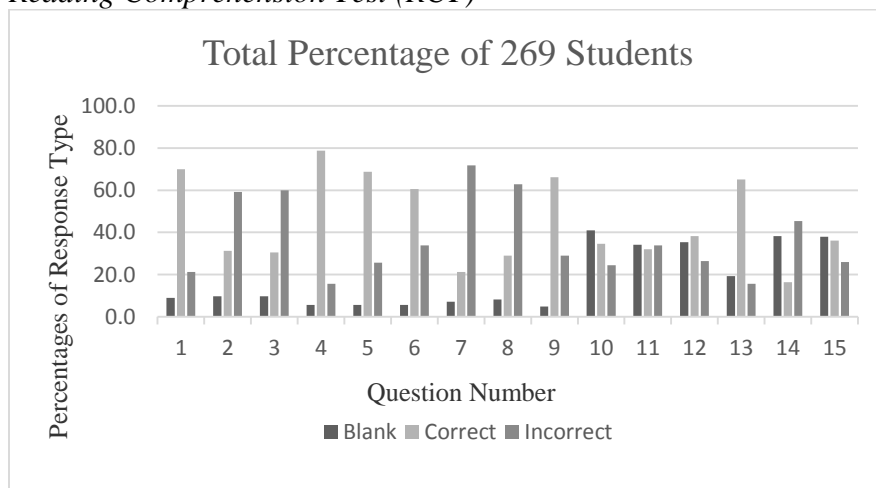*Reading Comprehension Test (RCT)*

Figure 1. Reading Comprehension Test (RCT)

The frequency table shows that no student was able to get 100% marks in the test. The questions with the highest ratio of 'incorrect' response type were Q2 (59.1%), Q3 (59.9%) and Q7 (71.7%). The question which received the highest 'blank' response type was Q10 (40.9%), whereas the question with the highest ratio of 'correct' response was Q4 (78.8%).

4.2 Descriptive Analysis of RCT

It can be deduced from the frequency analysis that most students performed poorly on the Reading Comprehension Test. Q7 received the highest 'incorrect' response rate, that is, 71.7%. This question belonged to the first section of the reading test where students were given the 'main ideas' of the paragraphs of the text in the form of 'phrases' and they were required to match the 'phrases' which best described the 'main idea' in the paragraphs. The phrases were not directly taken from the text, rather they were rephrased which might have proved it difficult for them to understand. Moreover, Q3 also earned quite a high ratio of 'incorrect' response type, that is, 59.9%. The high rate of the incorrect response again can be attributed to 'rephrased' main ideas and lack of awareness of comprehension strategies regarding the main ideas of the paragraphs on the part of students. On the contrary, Q4 received the highest 'correct' response rate, that is, 78.8%. It proved that the text was moderately difficult and with a little effort students could have secured better marks in the respective questions.

4.3 Frequency Analysis of RSQ

Table 2:
Pre-Reading Strategies

Response Type	Q.1	Q.2	Q.3	Q.4	Q.5	Q.6	Q.7	Q.8	Q.9	Q.10
Correct	34.9	65.1	68.5	52	49.1	52.4	57.2	45.4	61.3	28.6
Incorrect	65.1	34.9	31.6	48	50.9	47.6	42.8	54.6	38.7	71.4
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

It is clear from the frequency analysis that most of the students were unaware of the pre-reading comprehension strategies as the ratio of 'incorrect' responses was much higher (Q1:65.1%, Q10:71.4%) than the 'correct' answers (Q2: 65.1%, Q3: 68.5%).

Table 3:
While-Reading Strategies

Response Type	Q.11	Q.12	Q.13	Q.14	Q.15	Q.16	Q.17	Q.18	Q.19	Q.20
Correct	30.9	58.7	57.2	43.5	50.2	41.3	34.2	61	34.2	30.6
Incorrect	69.1	41.3	42.8	56.5	49.8	58.7	65.8	39	65.8	69.5
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

It is clear from the frequency analysis that most of the students were unaware of the while-reading comprehension strategies as the ratio of 'incorrect' responses was much higher (Q11: 69.1%, Q17: 65.8%, Q20: 69.5%) than the 'correct' answers (Q12: 58.7%, Q18: 61%).

Table 4:
Post-Reading Strategies

Response Type	Q.21	Q.22	Q.23	Q.24	Q.25
Correct	36.8	50.9	43.1	45.4	31.2
Incorrect	63.2	49.1	56.9	54.6	68.8
Total	100%	100%	100%	100%	100%

It is clear from the frequency analysis that most of the students were unaware of the post-reading comprehension strategies as the ratio of 'incorrect' responses was much higher (Q21: 63.2%, Q.25: 68.8%) than the 'correct' answers (Q22: 50.9%, Q24: 45.4%).

5. Findings

It is evident from the frequency analysis of the Reading Comprehension Test that most of the students participating in the research had low English language proficiency as the number/ratio of correct answers was much lower than that of incorrect answers. Part I (consisting of Q1- Q9) of RCT was about the comprehension of 'main ideas' of the paragraphs (given in RCT). The students were asked to pinpoint the phrases that could be used as the heading of the paragraphs. Students were supposed to do 'intensive' reading for this purpose, which according to Brown (1982) "is a process that involves using specific reading strategies or skills to understand the text". The questions incorrectly answered in this section were Q2, Q3, Q7 and Q8. As the reading text was of moderate difficulty level, students could have responded better if they had known the effective use of cognitive strategies like highlighting important points, questioning, summarizing and organizing information in points or presenting them graphically (McEwan, 2007).

The phrases which were provided to be selected as the 'heading' of the paragraphs were not taken directly from the text; rather, they were rephrased which lead to the miscomprehension of the main ideas of the paragraphs and made it difficult for students to deal with the text if the same information was presented to them in a different manner. Students who selected "incorrect" answers in this section seemed to lack adequate 'vocabulary', which is also mentioned by (Syatriana, 2012), who is of the view that if readers do not know the words of the text they will not be able to comprehend it. However, students could have used strategies such as decoding, looking at prefixes or suffixes of words, looking at the contextual clues, and activating their prior knowledge of

the language to understand the meaning of unknown words. One of the characteristics of a good reader is that he/she can guess/infer the meaning of unknown words from contextual clues to comprehend the text (Goodman, 1967).

Part II (consisting of Q10, Q11, Q12) of RCT was supposed to be completed with "no more than three words". This section reflected the highest 'blank' response type for questions Q10:40.9%, Q11:34.2 and Q12:35.3. Since the words were supposed to be taken from the reading passage to complete the sentences, it points towards the lack of awareness among students of reading strategies like 'skimming' and 'scanning'. Scanning involves quick reading focused on finding the specific information (MacLeod, 1997). Training students to use strategies effectively and improve fluency in the reading process might prove useful in cases like this one. They should know how to read in between lines to find the specific information and ignore what is unimportant.

Part III (consisting of Q13, Q14, Q15) of RCT was related to drawing "inferences". There were four options provided with each question and students were required to select the option which best reflected the idea presented or described in the reading passage. The sentence structure had been altered in the given options and some of the ideas were not directly mentioned in the text, rather they were implied. Q.14 was mostly answered 'incorrectly' (45.4%) or left 'blank' (38.3%) due to the lack of understanding on behalf of the participants. Reading is a "psycholinguistic guessing game" (Goodman, 1967). So, in order to make sense of a text, students can employ a number of "cognitive, social and affective strategies" (Syatriana, 2012).

The RSQ consisted of 25 items altogether, 10 related to pre-reading, 10 related to while-reading and 5 related to post-reading strategies. Four options were given with each item and students were required to select only one option. Most of the students selected 'incorrect' options indicating a lack of awareness about reading comprehension strategies. The analysis of Part I (consisting of 10 items related to 'pre-reading' strategies) reflected that students had very little knowledge regarding pre-reading strategies like prediction, guessing, looking at the text structure and questioning as is evident from the incorrect responses to the items of Part I (see Table 2). It is important to remind the students "that comprehension begins prior to reading" and extends to later processes of 'while-reading' and 'post-reading' (Schoenbach, 1999). Many dependent readers think that comprehension means to give answers correctly but teaching them pre-reading strategies such as looking at the title, text structure, sub-headings, sub-sections, figures and captions can improve their comprehension.

The analysis of Part II (consisting of 10 items related to 'while reading' strategies) indicated low awareness and less usage of reading comprehension

strategies as most of the responses were 'incorrect' (see Table 3). Strategies such as reading slowly, re-reading, making inferences and organizing information in points or graphic form were rarely used. During the reading process, students should practice making connections between the new knowledge and the prior one, while monitoring their comprehension, summarizing and questioning (Schoenbach, 1999). The analysis of Part III (consisting of 5 items related to post-reading strategies) of RSQ (see Table 4) again indicated that many students were not into the habit of reflecting after the reading task was done. Skilled readers utilize multiple reading comprehension strategies such as previewing the text, connecting new knowledge to prior knowledge, monitoring, predicting and reflecting on ideas learned during reading (Holschuh & Aultman, 2009; McEwan, 2007). Parr and Woloshyn (2012) noticed improvements in students' reading skill after being given direct instructions related to comprehension strategies within the context of their English course.

6. Discussion

It is a misconception that students are already skilled readers. Research findings suggest that many students joining college have poor reading skill and comprehension and do not know about reading comprehension strategies which are important for academic readings, projects and tests (Alexander & Fox, 2011; Blitz, 1997; Pintrich, 2002; McEwan, 2007). According to McEwan (2007), "the reality is that college classrooms are filled with mixed ability students who could benefit from specific strategy instruction embedded into their courses". The purposeful application of reading comprehension strategies leads to deeper comprehension (IRA, 2007; McEwan, 2007). Many studies show a strong relationship between students' comprehension, learning strategy use and their GPA implying that students with low GPA use fewer reading comprehension strategies (Taraban, 2014; McEwan, 2007).

It can be concluded from the current study that most of the Pakistani students lack proficiency in English language. Although reading is only one aspect of the language, it is the most basic one and it provides a helpful insight into students' proficiency in English language. The analysis of RSQ supports the analysis of RCT and proves that students have little awareness regarding reading comprehension strategies and their usage which leads to poor performance in reading tests and ultimately hinders in their academic achievement. "Reading at higher educational level is demanding" (McEwan, 2007), whereby "students study unfamiliar concepts and read difficult terminology which places a considerable cognitive demand on them" (Francis & Simpson, 2009; Pawan & Honeyford, 2009; McEwan, 2007).

7. Implications

Pakistani students have great potential to learn a second/foreign language as they are already multilingual, which is a quality uncommon in their western counterparts, but lack of quality English language teaching programs are hindering their progress. Hence, it is recommended that reading comprehension strategy instruction should be made compulsory in English language classrooms at primary as well as at higher levels of education. Moreover, teachers should be trained to instruct and model these strategies in classrooms encouraging students to use cognitive and metacognitive strategies to construct meaning from academic texts.

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