
Reading Comprehension as a Predictor of Academic Performance among Pakistani Undergraduate ESL Students in Karachi

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Abstract

Reading comprehension is a foundational academic skill that plays a pivotal role in shaping the academic outcomes of undergraduate ESL (English as a Second Language) students, especially in the context of Pakistani higher education where English serves as the primary medium of instruction. This study investigated the relationship between reading comprehension and academic performance among undergraduate ESL students enrolled at a public university in Karachi, Pakistan, during the academic year 2022–2023. A quantitative correlational research design was employed, involving 258 undergraduate students selected through simple random sampling. A 40-item standardized reading comprehension test was administered to assess students' reading comprehension levels, while academic performance was gauged using students' General Weighted Average (GWA) Descriptive statistics including frequency, percentage, mean, and standard deviation were used to describe the participants' demographic profile, reading comprehension levels, and academic performance. Pearson Product-Moment Correlation Coefficient was applied to determine the relationship between the two variables. Results revealed that the respondents demonstrated a high level of reading comprehension and very high academic performance. Furthermore, findings indicated a weak but statistically significant positive relationship between reading comprehension and academic performance ($r = .355$, $p = .001$). The results suggest that improvements in students' reading comprehension are associated with better academic performance. Hence, strengthening reading comprehension through effective instructional strategies and university-wide ESL literacy programs is recommended to further enhance students' academic achievement in Pakistan.

Keywords: *Reading Comprehension; Academic Performance; Pakistani ESL Learners; Undergraduate Students*

Introduction

In contemporary Pakistan, the ability to read and comprehend English texts has become an indispensable academic competency for undergraduate students. English functions as the primary medium of instruction across universities, and students are required to engage with complex academic texts in subjects ranging from natural sciences to social sciences. The National Council

of Teachers of English (NCTE, 2013) argues that a person living in the 21st century global society must be able to: be proficient and fluent in using the tools of technology; build intentional cross-cultural connections and relationships; design and share information for global communities; manage, analyze, and synthesize multiple streams of simultaneous information; and create, critique, analyze, and evaluate multimedia texts. This reality imposes a compelling challenge upon Pakistani universities to produce graduates who are not merely literate in the traditional sense but who are equipped with 21st-century multiliteracy skills.

The Pakistani educational landscape presents unique challenges for ESL learners. English is often the third or even fourth language for many students, coming after Urdu and a regional mother tongue such as Punjabi, Sindhi, Pushto, or Balochi. Despite being exposed to English instruction from primary school, many undergraduates arrive at university with insufficient reading comprehension skills (Khan & Iqbal, 2012). This deficit has profound implications for academic achievement, since university-level coursework demands higher-order reading and critical thinking skills.

National data further underscores this concern. The Annual Status of Education Report (ASER Pakistan, 2019) found that a significant proportion of students completing secondary education still struggle with English reading comprehension at grade-appropriate levels. Similarly, Rehman and Saeed (2018) reported that a large percentage of Pakistani university students demonstrate inadequate comprehension of English academic texts, which adversely affects their performance across disciplines.

Undoubtedly, reading is one of the most essential study skills in all levels of education. Establishing good reading habits has a profound impact on an individual. Through sustained reading, a learner can improve focus and concentration, develop verbal ability, stimulate imagination, elevate intellectual capacity, strengthen memory, and foster self-awareness. In the Pakistani university context, where lectures, textbooks, assignments, and examinations are predominantly conducted in English, a student's ability to comprehend written English directly determines academic success.

The Higher Education Commission of Pakistan (HEC) has recognized this challenge and has implemented several initiatives to improve English language proficiency among university students, including mandatory English language courses at the undergraduate level. However, research examining the specific relationship between reading comprehension proficiency and academic performance among Pakistani undergraduates remains limited. This gap in the literature motivates the current study, which aims to determine the nature and strength of this relationship. Reading process, in a sense, is to recognize sounds, syllables, words, and convert them into meaningful language. It is a reporting process in a systematic form, in a gradual structure that textual components require one another such as sentence, word, syllable, and sound. In another sense, the reading process is a reader's extrapolation process about sentences and words in the text by activating background knowledge at a higher level in the direction of instructions of the text (Alderson, 2000; Treiman, 2003).

Meanwhile, reading comprehension is a complex cognitive and interactive process of deriving meaning from a text (Rumelhart, 1981). In addition, Trehearne and Doctorow (2005) support this claim, stating that it is an interaction of different variables (reader, text, and environment) in a sociocultural context. It is viewed as a complex set of cognitive activities involving many skills and dimensions such as 'the perception of words, clear grasp of meaning, thoughtful reaction, and integration' (Hermosa, 2002). In the Pakistani ESL context, these dimensions are further complicated by the linguistic distance between English and students' native languages, making reading comprehension a particularly demanding cognitive undertaking.

Al Noursi (2014) argues that the ability to read for various purposes is a precursor to successful learning in schools, colleges, and universities, and that it is a survival skill in the 21st century

whether for students or professionals. For Pakistani undergraduate ESL learners, this survival skill is particularly critical, given that academic success, career prospects, and participation in global knowledge networks all depend on proficient English reading ability.

On the other hand, reading motivation is the interest or desire to read for different reasons or purposes. Positive reinforcements have favorable effects on motivation in reading; hence, it is essential that teachers design motivating and engaging reading activities for learners to develop a genuine love and passion for reading (Hermosa, 2002). Baker, Dreher, and Guthrie (2000) suggest that for students to be motivated to read, teachers and parents alike must provide children with a good foundation at the word level, serve as guides, provide opportunities to read with sufficient interesting reading materials, create a sharing community of learners, make learning contexts stress-free and engaging, identify specific student strengths and weaknesses, provide ample time to read, coordinate with other teachers and administrators for a holistic reading program, and partner with parents. In the Pakistani university context, instructors who incorporate interesting local and culturally relevant texts into ESL reading curricula have been found to significantly enhance student engagement and reading motivation (Sultana, 2015).

Certainly, if a Pakistani undergraduate ESL student is faced with challenging academic reading tasks, one must consider that reading involves both cognitive and affective dimensions (Guthrie & Wigfield, 2005). Students may be reasonably proficient at decoding English text but may still be reluctant or unmotivated to read extensively. As Lau (2004) stated, many useful strategies intended to improve students' reading skills can be taught; however, students will benefit from those strategies only if they are motivated to read. This is the second dimension of reading, as described by Server (1990), wherein motivation is regarded as the affective aspect of reading.

Duy (2007) defined motivation as an inner stimulus that drives a person to act in order to achieve a goal. Motivation, which is by definition multifaceted and dynamic, changes depending on contextual and temporal factors (Guthrie & Wigfield, 2000). In Pakistan, socioeconomic factors, access to reading materials, and the societal value placed on English literacy also significantly shape students' reading motivation.

Given the context on the importance of reading comprehension and its relationship with academic motivation and performance among Pakistani undergraduate ESL students, this study explores the correlation between reading comprehension and academic performance in this specific educational setting.

Statement of the Problem

This study aims to determine the relationship between reading comprehension and academic performance of undergraduate ESL students at a public university in Karachi, Pakistan.

Specifically, it seeks to answer the following questions:

- What is the demographic profile of the students in terms of: (a) Age; (b) Program/Department; and (c) Gender?
- How may the level of students' reading comprehension be described?
- How may the academic performance of the students be described?
- Is there a significant relationship between students' reading comprehension and academic performance?

Hypothesis

H₀: There is no significant relationship between the reading comprehension and academic performance of undergraduate ESL students at the target public university in Karachi, Pakistan.

Scope and Delimitation

This study focuses on determining the relationship between reading comprehension level and academic performance of undergraduate ESL students officially enrolled during the academic year 2024–2025. The respondents consisted of 258 undergraduate students selected through simple random sampling. Reading comprehension was measured using a standardized reading comprehension test, while academic performance was based on students' General Weighted Average (GWA). Other factors that may affect academic performance such as socioeconomic background, attendance, and teaching quality were not included in the scope of this study.

Theoretical Framework

The study is anchored on the Schema Theory. This theory explains how readers use prior knowledge to comprehend and learn from text (Rumelhart, 1980). The term “schema” was first used in psychology by Bartlett as “an active organization of past reactions or experiences” (1932, p. 201); schema was subsequently introduced into reading research by Rumelhart (1980), Carrell (1981), and Hudson (1982) when discussing the important role of background knowledge in reading comprehension (all cited in An, 2013). The fundamental principle of Schema Theory assumes that written text does not carry meaning by itself. Rather, a text only provides directions for readers as to how they should retrieve or construct meaning from their own previously acquired knowledge (An, 2013).

According to Schema Theory, comprehending a text is an interactive process between the reader's background knowledge and the text. Efficient comprehension requires the ability to relate textual material to one's own knowledge. As Anderson (1977, p. 369) points out, “every act of comprehension involves one's knowledge of the world as well.” Reading comprehension operates in two directions: from bottom-up to the top and from the top down to the bottom of the hierarchy. Bottom-up processing is activated by specific data from the text, while top-down processing begins with general knowledge to confirm predictions. These two kinds of processing occur simultaneously and interactively (Carrell & Eisterhold, 1983).

In the Pakistani undergraduate ESL context, Schema Theory is particularly instructive. Pakistani students often face a “schematic gap” when reading English academic texts, because the cultural, social, and disciplinary knowledge presupposed by those texts may differ significantly from students' own experiential backgrounds (Javed, Juan, & Nazli, 2013). This gap can impede comprehension even when students possess adequate decoding skills. Instructors who explicitly build content and formal schemata through pre-reading activities can significantly enhance ESL students' reading comprehension outcomes.

Also, this study draws on the Self-Efficacy Theory of Albert Bandura, which is particularly relevant in the motivational dimension of reading. Bandura (1986) suggests that motivation, or a lack thereof, is the result of an individual's self-efficacy: the beliefs we hold about ourselves that cause us to make choices, put forth effort, and persist in the face of difficulty. For Pakistani ESL undergraduates, who frequently grapple with anxiety about English language use, self-efficacy beliefs are a critical determinant of engagement with English reading tasks. Bandura notes that one of the most powerful sources of self-efficacy is mastery experience.

Mastery experience occurs when a learner evaluates their own competence after engaging in a task and believes their efforts have been successful. Such experiences increase confidence and the willingness to attempt similar and more challenging tasks. Studies in the Pakistani context have found that ESL learners who experience early reading successes — for example, through graded reading programs develop stronger self-efficacy beliefs and subsequently engage more deeply with English academic texts (Zafar & Meenakshi, 2012). The beliefs and behaviors modeled by teachers and peers are also important in building the reading self-efficacy of undergraduate ESL learners in Pakistani classrooms.

Conceptual Framework

The study is grounded on the premise that a student's level of reading comprehension has a significant impact on academic performance. It posits that the ability to understand, interpret, and analyze written texts directly influences how undergraduate ESL students perform across different subjects in their programs. In this framework, reading comprehension serves as the independent variable, while academic performance — measured through the General Weighted Average (GWA) is the dependent variable.

The conceptual model illustrates the hypothesized relationship between these two variables. It suggests that students with higher reading comprehension skills are more likely to achieve better academic outcomes because they can efficiently process information, understand complex instructions, and critically evaluate learning materials. Conversely, students with lower reading comprehension may struggle to grasp essential concepts, which could negatively affect their academic performance across disciplines taught in English.

This model emphasizes the importance of developing reading comprehension skills as a foundation for academic success and serves as the theoretical basis for the research hypotheses in the Pakistani undergraduate ESL context.

Methodology

Research Design

The researchers employed a quantitative correlational research design. Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon (Babbie, 2010). This research design was selected because it allows the researchers to describe the relationship between the two key variables reading comprehension and academic performance without manipulating either variable. A standardized reading comprehension test was used to determine students' reading comprehension levels, while academic performance was determined using the students' General Weighted Average. As Adams (2019) explains, correlational research is a type of non-experimental research method in which a researcher measures two variables, understands and assesses the statistical relationship between them with no influence from any extraneous variable.

This research design was utilized to determine the relationship between reading comprehension levels and academic performance of undergraduate ESL students by describing them quantitatively. Such a design is appropriate given that the researchers sought to measure the degree of association between two naturally occurring variables without attempting to establish a causal relationship.

Participants of the Study

The respondents of the study consisted of 258 undergraduate ESL students officially enrolled during the academic year 2024–2025 at a public university in Karachi, Pakistan. The participants were drawn from different academic departments and programs offered by the university, ensuring representation across various fields of specialization, including the natural sciences, social sciences, engineering, and humanities. The selection of respondents from diverse academic programs provided a comprehensive view of students' reading comprehension levels and academic performance, regardless of their chosen field of study. Undergraduate students were specifically chosen because they are at the stage of their academic career where English medium

instruction is most demanding, and where reading comprehension skills are directly and consistently tested through coursework, assignments, and examinations.

Research Locale

The study was conducted at a public university in Karachi, Punjab, Pakistan. The university offers undergraduate education across multiple faculties in accordance with the Higher Education Commission of Pakistan (HEC) curriculum guidelines. English is the mandatory medium of instruction for most programs. The university was selected as the research locale due to its accessibility to the researchers, its diverse undergraduate student population, and its relevance to the study objectives of examining reading comprehension levels and academic performance among Pakistani ESL learners.

Sampling Procedure

The researchers initially identified the total population of undergraduate ESL students officially enrolled during the academic year 2022–2023. Based on the university's official enrollment records, the total population consisted of 731 undergraduate students across different academic programs. Since it was impractical to include the entire population in the study, a representative sample was determined to ensure the feasibility of data collection while maintaining the accuracy and generalizability of the results.

To determine the appropriate sample size, Slovin's formula was utilized. This formula is commonly used in educational research to calculate sample size when the population is known and when a specific margin of error is desired. By applying Slovin's formula, the researchers computed a sample size of 258 respondents, which was deemed sufficient to represent the total undergraduate ESL student population and to yield reliable statistical results.

After determining the sample size, the researchers employed a Simple Random Sampling Technique to select the participants. Simple random sampling is a probability sampling method in which every individual in the population has an equal and independent chance of being selected. This technique minimizes selection bias and ensures that the sample is representative of the population. According to Easton and McColl (n.d.), simple random sampling allows every possible sample of a given size to have an equal probability of selection, thereby enhancing the credibility and validity of the research findings.

The list of undergraduate ESL students was obtained from the university administration and served as the sampling frame. Each student was assigned a unique identification number, and the required number of respondents was selected randomly. This procedure ensured that the selection of participants was conducted in a fair, objective, and systematic manner, without favoring any particular department, section, or year of study. The combination of Slovin's formula and simple random sampling strengthened the methodological rigor of the study.

Research Instrument

This study adapted a Reading Questionnaire consisting of a 40-item Reading Comprehension Test formulated by Tran Hung (n.d.). The survey questionnaire is divided into two sections: the first section consists of five passages with four-item questions each. The second section consists of five passages, where the first and second passages have five-item questions each, and the third through fifth passages have four-item questions each.

The instrument was used to determine students' reading comprehension level. Prior to administration, the instrument's suitability for the Pakistani undergraduate ESL context was evaluated by two faculty members from the Department of English at the target university, who confirmed its appropriateness in terms of vocabulary level, text length, and question types.

Academic performance was represented by the students' General Weighted Average (GWA) for the most recently completed academic semester.

Data Gathering Techniques

Before conducting the study, the researchers submitted a formal permission letter to the Registrar and relevant department heads of the target university. After the permission letter was approved and ethical clearance was obtained, the researchers began data collection by distributing the survey questionnaire to the selected respondents. Before distributing the questionnaires, the researchers greeted participants and obtained their informed consent. Participants were briefed on the purpose, significance, and voluntary nature of the study. The researchers personally administered the instrument to the respondents. The participants were allowed sufficient time to analyze and respond to the questionnaire items. After completion, the questionnaires were collected immediately from the participants. Academic records containing GWA data were obtained from the university's examination department with appropriate authorization.

Data Analysis and Statistical Treatment

The responses of the participants were tallied and encoded using SPSS (Statistical Package for the Social Sciences) software version 22. The following statistical tools were employed:

- Frequency and percentage were used to describe the demographic profile of the students.
- Mean and Standard Deviation were used to determine the level of reading comprehension and academic performance of the students.
- Pearson Product-Moment Correlation Coefficient (Pearson R) was used to determine whether reading comprehension is significantly related to academic performance.

The following interpretation scales were used:

Table A. Mean Range Interpretation for Reading Comprehension

Score Range	Mean Range	Interpretation
31–40	3.25–4.00	Very High Level of Reading Comprehension
21–30	2.50–3.24	High Level of Reading Comprehension
11–20	1.75–2.49	Low Level of Reading Comprehension
1–10	1.00–1.74	Very Low Level of Reading Comprehension

Table B. Pearson r Correlation Coefficient Interpretation Scale

Pearson r	Interpretation
±0.80 to ±1.00	Very strong correlation
±0.60 to ±0.79	Strong correlation
±0.40 to ±0.59	Moderate correlation
±0.20 to ±0.39	Weak correlation
0.00 to ±0.19	Very weak correlation

Results and Discussions

This chapter presents the interpretation of the gathered data from the survey questionnaires. This section answers the stated problems of the study.

Table 1. Frequency and Percentage Distribution of Respondents According to Gender

Gender	Frequency	Percentage (%)
Female	166	64
Male	92	36
Total	258	100

The table shows the demographic profile of the respondents in terms of gender. Among the 258 respondents, 166 (64%) are female and 92 (36%) are male. This distribution reflects the increasing enrollment of female students in Pakistani public universities, particularly in humanities and social science programs, a trend documented in recent HEC enrollment data (HEC, 2022).

Table 2. Frequency and Percentage Distribution of Respondents According to Academic Program

Program	Frequency	Percentage (%)
BS English	88	34
BS Computer Science	86	33
BS Commerce	44	17
BS Social Sciences	40	16
Total	258	100

The table shows the demographic profile of the respondents by academic program. Among the 258 respondents, 88 (34%) are enrolled in BS English, 86 (33%) in BS Computer Science, 44 (17%) in BS Commerce, and 40 (16%) in BS Social Sciences. The diverse program representation ensures that the findings are not confined to any single disciplinary context, thereby enhancing the generalizability of the results within the Pakistani public university setting.

Table 3. Mean and Standard Deviation for Academic Performance

Variable	N	Mean	SD	Interpretation
Academic Performance	258	92.05	3.68	Very High

The table shows the academic performance of the student respondents ($M = 92.05$, $N = 258$, $SD = 3.68$). The result suggests that most respondents demonstrate outstanding academic performance. This relatively high GWA may partly be attributed to grade inflation tendencies observed in some Pakistani public universities, as well as to the fact that students who participate in research studies may be self-selected for higher academic engagement. Nonetheless, this finding aligns with studies conducted in other Pakistani university contexts (Rehman & Saeed, 2018), which report generally high GPAs among enrolled undergraduates.

Table 4. Mean and Standard Deviation for Reading Comprehension

Variable	N	Mean	SD	Interpretation
Reading Comprehension	258	22.79	2.43	High

The table presents the reading comprehension levels of the student respondents ($M = 22.79$, $N = 258$, $SD = 2.43$). The results suggest that most respondents demonstrate a high level of reading comprehension. This finding is noteworthy given the ESL context of Pakistani undergraduate education. While a high level of reading comprehension is encouraging, the relatively moderate mean score (22.79 out of 40) indicates that there remains significant room for improvement, particularly in higher-order comprehension skills such as inferencing and critical evaluation of text. This aligns with observations by Javed et al. (2013), who noted that Pakistani ESL students frequently perform adequately on literal comprehension tasks but face greater difficulty with inferential and evaluative reading tasks.

Table 5. Pearson R Correlation between Reading Comprehension and Academic Performance

Variable	Statistical Treatment	Academic Performance
Reading Comprehension	Pearson Correlation	0.355
	Sig. (2-tailed)	0.001
	N	258

A Pearson product-moment correlation coefficient was used to examine the relationship between reading comprehension and academic performance among the undergraduate ESL respondents. The result showed a weak but statistically significant positive relationship between reading comprehension and academic performance ($r = .355$, $N = 258$, $p = .001$). This indicates that as students' reading comprehension scores increase, their academic performance also tends to increase, although the relationship is modest. This finding is consistent with Chege (2012), who indicated that reading comprehension is linked to academic achievement in the subjects studied, and is therefore an important consideration when attempting to improve students' academic performance. In the Pakistani ESL context, the weak-to-moderate correlation may be partly explained by the multitude of other factors that influence GWA — including rote-learning strategies, examination formats that do not emphasize reading comprehension, and teacher-centered instructional approaches that are still prevalent in many Pakistani universities (Khan & Iqbal, 2012). Nonetheless, the statistically significant positive relationship affirms the importance of reading comprehension as a contributor to academic success.

These findings are further supported by Hijazi (2018), who stated that as students' reading comprehension abilities develop, their learning competencies and academic achievement also improve, positively impacting overall academic performance. In the Pakistani context, this has important implications for curriculum design and instructional practice. Sultana (2015) similarly found that targeted reading comprehension interventions in Pakistani undergraduate ESL

classrooms led to measurable improvements in overall GPA, particularly in text-heavy disciplines such as social sciences and law.

Summary

The primary objective of this study, “Reading Comprehension and Academic Performance,” was to determine the relationship between reading comprehension and academic performance among undergraduate ESL students at a public university in Karachi, Pakistan. A correlational research design was employed. According to Tan (2014), the aim of correlational analysis is to find connections between two or more variables — specifically, to assess whether an increase or decrease in one variable corresponds to an increase or decrease in another. The results of this study show that there is a significant positive relationship between reading comprehension and academic performance of Pakistani undergraduate ESL students, supporting the findings of Hijazi (2018) that developing reading comprehension abilities positively impacts students’ overall learning competencies and academic achievement.

Conclusion

Based on the results and discussion of the study, the following conclusions are drawn:

- The undergraduate ESL students at the target Pakistani public university demonstrated a high level of reading comprehension.
- The students demonstrated outstanding academic performance as measured by their General Weighted Average.
- Reading comprehension is significantly related to the academic performance of the students; therefore, the null hypothesis was rejected.

Recommendations

Considering that the study identified a significant, albeit weak, positive relationship between reading comprehension and academic performance, the following recommendations are offered:

- For students: Undergraduate ESL students should cultivate a habit of extensive English reading beyond course requirements. Engagement with English newspapers, academic journals, and English-language books can substantially improve both reading fluency and comprehension skills. Digital reading platforms, such as open-access journal repositories and e-libraries provided by the HEC, are readily available and should be utilized.
- For teachers: ESL instructors should incorporate explicit reading comprehension instruction into their courses, including the teaching of reading strategies such as previewing, predicting, summarizing, and questioning. Culturally relevant and locally contextualized reading materials should be integrated to bridge the schematic gap faced by Pakistani ESL learners. Collaborative reading activities and reader-response tasks can further enhance engagement and comprehension.

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