

## An Experimental Study of the Think–Pair–Share Strategy and its Influence on Reading Performance of Undergraduate ESL Students in Pakistan

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### Abstract

This experimental study investigated the effectiveness of the Think–Pair–Share (TPS) instructional strategy in enhancing the reading comprehension performance of undergraduate ESL students in Pakistan. The target population consisted of undergraduate students enrolled in public sector universities. Using a quasi-experimental pre-test–post-test control group design, two intact classes were selected through simple random sampling, comprising a total of 90 undergraduate students. The experimental group (n = 46) was taught reading comprehension through the Think–Pair–Share strategy, while the control group (n = 44) received instruction through conventional lecture-based methods. Data were collected using a standardized reading comprehension achievement test. The reliability of the instrument was established through the test–retest method, yielding a reliability coefficient of 0.83. Data were analyzed using mean scores and standard deviations to address the research question, while an independent samples t-test was employed to test the research hypothesis at a 0.05 level of significance. The findings revealed a statistically significant improvement in the performance of students exposed to the Think–Pair–Share strategy compared to those in the control group. The experimental group demonstrated a higher mean gain score, indicating that collaborative interaction through structured peer discussion positively influenced reading comprehension outcomes. The study concludes that the Think–Pair–Share strategy significantly enhances reading performance among undergraduate ESL learners in Pakistan. It is recommended that university-level English language instructors integrate TPS and other cooperative learning strategies to promote active engagement, critical thinking, and deeper textual understanding in reading classrooms.

**Keywords:** Comprehension, Learning, Think–Pair–Share Strategy, Undergraduate ESL Learners,

### Introduction

Reading is widely regarded as an interactive process between the reader and the text. It constitutes one of the four fundamental language skills that must be deliberately developed. Adeniji and Omale (2010) emphasized that a substantial proportion of knowledge transmitted in formal educational settings is acquired through reading. Consequently, reading functions as a critical life skill and serves as a foundation for students' academic success both within and beyond the classroom. Reading comprehension, however, extends beyond the mere decoding or pronunciation

of written words. It involves the integration of textual information with the reader's prior knowledge, experiences, and background schema. For this reason, Agussatriana (2020) argued that understanding a text is often more complex than it appears.

In Pakistan, English holds the status of a second language (L2), and most learners acquire it after developing proficiency in their first language. This linguistic context often creates challenges for students, particularly in academic reading tasks. Despite studying English for several years, many students struggle to demonstrate strong performance in examinations that require higher-order comprehension skills. Scholars concerned with this persistent issue have attempted to identify its underlying causes and propose effective pedagogical interventions. Jamal, U. B., & Zaman, M. (2025). Observed that conventional instructional approaches commonly used in teaching reading comprehension tend to limit students' active participation and fail to significantly enhance engagement in classroom activities. Furthermore, Syafii (2018) noted that traditional, textbook-driven, teacher-centred methodologies continue to restrict meaningful learner involvement. Supporting this position, Agussatriana (2020) argued that such approaches are often monotonous, demotivating, and lacking in collaborative idea-sharing among students. These limitations contribute not only to weak performance in English reading comprehension but also to difficulties in other academic subjects, since comprehension skills are essential across disciplines. In the Pakistani higher education context, where undergraduate ESL learners are required to engage with complex academic texts, the reliance on conventional methods may further hinder the development of analytical and critical reading skills. Therefore, it becomes essential to explore student-centred instructional strategies capable of promoting active engagement and improving reading outcomes. One such promising strategy is the Think–Pair–Share (TPS) approach. Think–Pair–Share is a cooperative learning technique designed to foster structured student participation. It was introduced by Frank Lyman and his colleagues in 1981 (NR) at the University of Maryland. The strategy was developed to encourage learners to formulate individual ideas, discuss them with peers, and subsequently present them to a larger group. The term “Think–Pair–Share” reflects the three sequential stages of learner engagement, each emphasizing a specific cognitive and social activity. The TPS approach promotes active involvement by allowing students time to reflect critically on a question, collaborate with a partner to refine their responses, and finally share their ideas with the entire class. Agussatriana (2020) highlighted that TPS enhances peer support, acceptance, self-esteem, interest, and ultimately academic achievement.

During the “Thinking” phase, the teacher presents an open-ended question relevant to the lesson and allows students time to independently construct responses. This stage strengthens memory retrieval and enhances critical thinking skills. As Astiyandha (2013) noted, this phase enables learners to gather and organize their ideas systematically. In the “Pairing” phase, students collaborate with a peer—typically the person seated beside them—to exchange ideas and discuss possible answers. This interaction promotes confidence, encourages free expression, and allows students, particularly those who are introverted, to rehearse their responses before addressing the entire class. It also provides opportunities to compare and refine understanding, thereby improving the overall quality of responses. In the “Sharing” phase, pairs present their ideas to the whole class. Syafii (2018) explained that other pairs may contribute additional perspectives, thereby enriching the discussion. This collaborative environment fosters a sense of inclusion and shared responsibility. Nevertheless, Richards and Rodgers (2001), cited in Astiyandha (2013), cautioned that TPS may be time-consuming and that unequal participation within pairs can reduce its effectiveness. Think–Pair–Share represents one among several interactive instructional techniques structured to ensure that all students participate actively in classroom learning. Other interactive strategies include role play, games, group discussions, read-aloud activities, guessing exercises, tournaments, and picture-based discussions. These approaches engage learners in meaningful tasks that have the potential to enhance academic performance. In the context of Pakistani universities,

where undergraduate ESL students are often expected to interpret complex academic texts independently, the integration of interactive strategies such as Think–Pair–Share can play a vital role in strengthening comprehension skills, fostering collaborative learning, and improving overall academic achievement.

### **Statement of the Problem**

Educational stakeholders in Pakistan have consistently voiced concern regarding students' unsatisfactory academic performance, particularly in English reading comprehension, which constitutes a substantial component of the English curriculum at the undergraduate level. Although students are exposed to English instruction from the primary stage onwards, many learners entering university still demonstrate inadequate proficiency in reading comprehension skills. This persistent weakness is reflected in examination outcomes and classroom performance, where students struggle to interpret, analyze, and critically evaluate academic texts. The issue has largely been attributed to the continued reliance on conventional and teacher-centred instructional approaches in reading classrooms. Ineffective pedagogical strategies limit students' engagement, critical thinking, and meaningful interaction with texts. The Think–Pair–Share (TPS) strategy has been examined by several researchers, including Astiyandha (2013), Rathakrishan, Raman, Singh, and Yasin (2019), and Karura et al. (2021), who investigated its effectiveness in enhancing students' academic performance. However, these studies were conducted in contexts outside Pakistan, making it difficult to generalize their findings to Pakistani undergraduate ESL classrooms due to contextual, linguistic, and institutional differences.

Given the continued challenges faced by undergraduate ESL learners in Pakistan, there is a need to explore innovative, student-centred strategies that can actively engage learners and improve their reading comprehension outcomes. Therefore, this study seeks to examine the effect of the Think–Pair–Share (TPS) strategy on the reading performance of undergraduate ESL students in Pakistan, with the aim of determining whether structured peer interaction can enhance academic achievement in reading comprehension.

### **Literature Review**

In Astiyandha's (2013) investigation into the effectiveness of the Think–Pair–Share (TPS) strategy in teaching reading comprehension, students' motivation levels were also examined as a moderating variable. The study involved a population of 306 students drawn from nine classes, from which 68 participants were selected using cluster random sampling. The selected students were divided equally into two groups of 34 each. Data were gathered through two instruments: a motivation questionnaire and a reading comprehension test. Statistical analysis was conducted using a 2×2 multifactor Analysis of Variance (ANOVA) and Tukey's post hoc test. The findings indicated that  $F = (7.501) \geq F_t (3.96)$  and  $q_0 (3.87) \geq q_t (2.89)$ , demonstrating that students with higher motivation achieved significantly better reading comprehension scores than those with lower motivation. The researcher concluded that TPS is an effective strategy for teaching reading comprehension; however, its success is influenced by students' motivational levels. Consequently, teachers were encouraged to adopt TPS in reading classrooms.

Similarly, Syafii (2015), in a study titled *Using Think–Pair–Share Strategy to Increase Students' Active Involvement and Improve Their Speaking Ability*, employed an action research design with 26 participants. The researcher developed instruments including a checklist, observation schedule, questionnaire, and speaking test. A collaborator acted as the classroom teacher, while the researcher observed and evaluated the implementation of TPS. Data were analyzed using frequency counts and simple percentages. The findings revealed that TPS significantly enhanced students' classroom participation and speaking skills. Approximately 78% of participants were actively engaged during TPS sessions compared to only 29% in the preliminary phase. Moreover, speaking proficiency improved from 29% at the beginning of the study to 65% after the intervention. Syafii (2015) concluded that TPS is highly effective in promoting active involvement

and improving speaking skills in English language learning, recommending strict adherence to its six procedural steps. Rathakrishan, Raman, Singh, and Yasin (2019) also examined the role of TPS in fostering students' critical thinking skills using a quasi-experimental design. The Macro Critical Thinking (MACT) assessment instrument was employed to measure outcomes among 72 students divided into experimental and control groups. Results indicated that students exposed to TPS during oral presentation tasks demonstrated significantly higher levels of critical thinking compared to those taught through conventional methods. The researchers concluded that TPS enhances academic performance by activating prior knowledge and providing structured thinking time. In a related study, Agussatriana (2020) investigated the impact of TPS on students' reading comprehension through a quasi-experimental pre-test–post-test control group design. The study involved 60 senior secondary school students. Data were collected using reading comprehension tests administered before and after the intervention. Statistical analysis using a t-test revealed that the calculated t-value (5.747) exceeded the critical value (2.002) at the 0.05 significance level. This confirmed that TPS significantly improved students' reading comprehension scores.

Karura et al. (2021) explored the effect of TPS on students' academic achievement and motivation in Christian Religious Education (CRE) in Kenya using a Solomon four-group quasi-experimental design. From a population of 14,292 students, 184 were randomly selected from four schools. The experimental group was taught using TPS, while control groups received conventional instruction over four weeks. Two validated instruments, the CRE Assessment Test (CREAT) and Motivation Descriptive Questionnaire (MDQ), were used for data collection. Data analysis involved descriptive statistics (mean, percentage, standard deviation) and inferential statistics (ANOVA and t-test) at the 0.05 significance level. The findings demonstrated that TPS significantly enhanced students' achievement, and gender had no effect on performance. The researchers concluded that TPS is a highly effective instructional strategy that should be adopted in classroom practice.

In light of the above empirical evidence, which consistently highlights the positive impact of Think–Pair–Share on students' academic performance, motivation, and critical thinking skills across various contexts, it becomes necessary to examine its applicability within the Pakistani higher education setting. Given the persistent challenges faced by undergraduate ESL learners in Pakistan—particularly in reading comprehension—it is worthwhile to investigate the effect of the Think–Pair–Share (TPS) strategy on the reading performance of undergraduate ESL students in Pakistani universities. Such an inquiry may provide context-specific evidence to support the integration of cooperative learning strategies into tertiary-level English language instruction.

### **Research Objectives**

The objectives of this study are to:

- Examine the effect of the Think–Pair–Share (TPS) strategy on the reading comprehension performance of undergraduate ESL students in Pakistan.
- Compare the reading comprehension performance of students taught through the TPS strategy with those taught using conventional lecture-based methods.
- Determine whether the TPS strategy significantly enhances students' engagement and active participation in reading comprehension activities.

### **Research Questions**

1. What is the mean difference in reading comprehension performance between undergraduate ESL students taught using the Think–Pair–Share strategy and those taught using conventional lecture-based methods?
2. To what extent does the Think–Pair–Share strategy influence undergraduate ESL students' engagement in reading comprehension activities?

## Research Hypothesis

**H01:** There is no significant difference in the reading comprehension performance of undergraduate ESL students taught using the Think–Pair–Share strategy and those taught using conventional lecture-based methods in Pakistani universities.

## Research Methodology

### Research Design

This study employed a quasi-experimental research design with a pre-test–post-test control group approach. The design allowed for the comparison of reading comprehension performance between students exposed to the Think–Pair–Share (TPS) strategy and those taught using conventional lecture-based methods. A pre-test was administered to both groups before the intervention, and a post-test was conducted after the instructional period to measure the effect of the TPS strategy.

### Target Population

The target population comprised all undergraduate ESL students enrolled in public sector universities in Pakistan. These students typically face challenges in reading comprehension due to their status as second-language learners and the reliance on traditional lecture-based teaching methods.

### Sampling Technique

A simple random sampling technique was employed to select two intact classes from two different universities. One class served as the experimental group, which received instruction through the TPS strategy, while the other served as the control group, receiving conventional lecture-based instruction.

### Sample Size

The total sample consisted of 90 undergraduate ESL students, with 46 students in the experimental group and 44 students in the control group.

### Data Collection Tools

Data were collected using a reading comprehension test adapted from standard academic texts used in undergraduate ESL courses in Pakistan. The test comprised seven multiple-choice questions, each with four options (A–D), and was validated by three experienced ESL instructors with a minimum of five years of teaching experience. The reliability of the instrument was established using the test–retest method, yielding a reliability index of 0.81. The maximum obtainable score was 7, while the minimum was 0.

### Data Analysis Techniques

Collected data were analyzed using descriptive statistics (mean scores and standard deviations) to summarize performance levels. An independent samples t-test was conducted to determine the statistical significance of differences between the experimental and control groups. All analyses were performed using SPSS software version 20.

## Findings

### Research Question 1

What is the mean difference in the reading comprehension performance of undergraduate ESL students taught using the Think–Pair–Share (TPS) strategy and those taught using the lecture method?

**Table 1: Pre-Test Mean and Standard Deviation of Experimental and Control Groups**

Groups	N	Mean	SD
Experimental	46	1.75	1.02
Control	44	1.80	0.91

The results in Table 1 show that both the experimental and control groups were homogenous before the intervention, with a marginal mean difference of 0.05. This indicates that both groups had

similar reading comprehension performance prior to exposure to the TPS strategy, ensuring comparability for the post-test evaluation.

**Table 2: Post-Test Mean and Standard Deviation of Experimental and Control Groups**

Groups	N	Mean	SD	Mean Difference ( $\bar{x}$ Dif)
Experimental	46	3.48	1.08	1.73
Control	44	2.05	0.91	0.25

Table 2 shows the post-test performance of both groups. The experimental group, taught using the TPS strategy, achieved a mean score of 3.48 (SD = 1.08), whereas the control group, taught via conventional lecture, scored 2.05 (SD = 0.91). The mean difference of 1.73 demonstrates that the TPS strategy had a positive effect on students' reading comprehension performance, with greater improvement observed in the experimental group. The standard deviations indicate some variability in individual student scores, but overall, the TPS strategy led to higher achievement.

### Hypothesis Testing

**H01:** There is no significant difference in the reading comprehension performance of undergraduate ESL students taught using the TPS strategy and those taught using lecture methods in Pakistani universities.

**Table 3: Independent Samples t-Test for Post-Test Performance**

Groups	N	Mean Difference	SD	df	t-Cal	p-Value	Decision
Experimental	46	-1.73	1.08	88	-10.42	0.000	Rejected
Control	44	-0.25	0.91				

*Significant at  $p < 0.05$*

Table 3 presents the results of the independent samples t-test comparing the post-test performance of the experimental and control groups. The analysis shows a significant difference between the groups,  $t(88) = -10.42$ ,  $p = 0.000 < 0.05$ . The experimental group taught using the TPS strategy outperformed the control group taught via the lecture method. Consequently, the null hypothesis is rejected, indicating that the TPS strategy significantly improves reading comprehension performance among undergraduate ESL students in Pakistan.

### Discussion of Results

The findings of this study revealed that the Think–Pair–Share (TPS) strategy is an effective approach to enhancing the reading comprehension performance of undergraduate ESL students in Pakistan. This was evident from the mean gain of 1.73 in the post-test scores of the experimental group after implementation of the TPS strategy. Furthermore, the t-value of -10.42 with a p-value of 0.000 indicates that the null hypothesis—which posited no significant difference in performance between students taught using TPS and those taught via conventional lecture methods—was rejected at the 0.05 level of significance. These results are consistent with the findings of Fauziyati and Istiana (2013), Syafii (2018), and Agussatriana (2020), who reported that the use of TPS significantly enhances students' academic performance compared to traditional teaching methods. The TPS strategy not only improved comprehension skills but also increased students' motivation, critical thinking, and active participation in classroom activities. The strategy enabled students to think individually, discuss ideas with peers, and then share with the entire class, creating a collaborative learning environment. It particularly benefited students who were previously inactive or hesitant to participate, giving them opportunities to engage in meaningful learning and thereby improving their reading comprehension scores. Overall, the findings indicate that implementing TPS in undergraduate ESL classrooms in Pakistan can effectively improve reading comprehension performance, promote active participation, and foster higher-order thinking skills among students.

## Conclusion

This study established that the Think–Pair–Share (TPS) strategy is an effective method for enhancing undergraduate ESL students' active participation and performance in reading comprehension. The significant gain scores observed in the post-test of the experimental group indicate that students taught using TPS achieved better comprehension outcomes compared to those taught through conventional lecture methods. The findings further emphasize that students' academic performance can be substantially improved when appropriate, student-centered teaching strategies are employed by teachers who are committed and engaged in the instructional process. Therefore, it is recommended that English language instructors in Pakistani universities incorporate the TPS strategy into their teaching of reading comprehension. Doing so can promote active learning, collaboration, critical thinking, and ultimately improve students' overall proficiency in English reading.

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