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THINK-PAIR-SHARE VERSUS TRADITIONAL TEACHER-CENTRED INSTRUCTION: A QUASI-EXPERIMENTAL STUDY OF READING COMPREHENSION AMONG UNDERGRADUATE ESL STUDENTS IN KARACHI, PAKISTAN



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Abstract

This study examined the comparative effectiveness of the Think–Pair–Share (TPS) cooperative learning technique against traditional teacher-centred instruction in developing reading comprehension among undergraduate English as a Second Language (ESL) students in Karachi, Pakistan. Grounded in Vygotsky's social constructivist theory, the study employed a quasi-experimental, pretest–posttest, nonequivalent control-group design. Participants were 71 sixth-semester BS English students enrolled in two intact sections of a 19th Century Poetry course at a public-sector university, assigned to a TPS group ($n = 36$) and a traditional-instruction control group ($n = 35$) across a 14-week instructional intervention. Both groups improved significantly from pretest to posttest, but the magnitude of change differed sharply: TPS produced a very large within-group effect ($t(35) = 27.23, p < .001, dz = 4.54$), compared with a large effect in the control group ($t(34) = 7.72, p < .001, dz = 1.31$). Groups did not differ significantly at pretest ($t(69) = 0.30, p = .764, d = 0.07$), confirming baseline equivalence. On the posttest, TPS students scored significantly higher than control students, with a very large effect, $t(69) = 14.07, p < .001, d = 3.34$, and gain scores were significantly greater for TPS than for the control group, $t(69) = 10.52, p < .001, d = 2.50$. These findings confirm the theoretical prediction that structured peer collaboration, mediated through the Zone of Proximal Development and positive interdependence, enhances reading comprehension more effectively than lecture-based instruction, even though TPS is structurally the least elaborate cooperative learning technique. The discussion situates these results within international cooperative-learning and sociocultural literature and considers why a low-complexity, high-fidelity technique may outperform theoretical expectations in a context with limited prior exposure to cooperative pedagogy. Implications for ESL pedagogy in Pakistani higher education and comparable under-resourced EFL/ESL contexts are discussed, alongside limitations and directions for future research.

Keywords: *Think–Pair–Share; Cooperative Learning; Reading Comprehension; ESL; Sociocultural Theory; Quasi-Experimental Design; Pakistan*

Introduction

The English language has continued to play its part as being one of the primary means of communication among educational institutions and industries, as well as between nations, where English proficiency is seen to reflect a person's position in his/her socio-economic endeavors (Shang & Ma, 2024; Alanazi & Gallagher, 2025; Topkaya & Çelik, 2024). When it comes to teaching the English language, reading holds the status of the most demanding of the four language skills in terms of cognition and its role in learning vocabulary and developing critical thinking skills needed for academic achievement (Ahmed & Rehman, 2024; Latif, Ali, & Hamzah, 2025). However, in a large number of developing countries, including Pakistan, teaching reading is mainly based on a teacher-centered approach and an exam-oriented and grammar translation approach which stresses rote learning rather than understanding (Zhang & Wang, 2024; Kiran et al., 2021).

Cooperative learning, which refers to a set of organized teaching methods that enable students to learn together in small groups and to work toward a common objective has proven its effectiveness internationally in terms of improving foreign language skills, reading abilities, and students' motivation (Dai & Wang, 2024; Barrot, 2021; Abramczyk & Jurkowski, 2020). In Pakistan, however, cooperative learning is not widely used in educational facilities, mainly due to a high number of

students in classes, lack of training for instructors, and an invasive culture of lecturing (Alvi & Noreen, 2024; Lee & Hassan, 2025). For instance, in Karachi — the capital of Pakistan with many universities situated there — English reading classes have been taught completely through lectures, translation, and silent reading (Naveed, 2021; Qureshi et al., 2023).

Among the numerous cooperative learning strategies available to educators, the Think-Pair-Share (TPS) is regarded as one of the easiest to implement as it requires learners to think, converse with a partner, and finally share their understanding with the class (Lyman, 1981). Because it has low implementation costs, it is also an easy starting point for institutions that have never implemented cooperative learning in their classes before. However, there is still little empirical evidence that shows the effectiveness of this strategy over and above the conventional methods of teaching in Pakistan. This study aims to fill this gap in the existing literature by contrasting the TPS with traditional teacher-centered approach to teaching for reading comprehension skills in the context of a public university in Karachi.

Statement of the Problem

Reading comprehension is considered one of the most challenging language skills and is of great importance in academic performance for undergraduate students of English as a second language. Nonetheless, at the level of higher education institutions in public sectors in Pakistan, particularly in Karachi, instruction in reading skills continues to be based on traditional teacher-centered methods including lectures and individual reading in silence along with the grammar-translation approach relying on rote learning (Ahmed & Rehman, 2024; Kiran et al., 2021). In other words, the adopted instructional approach denies learners opportunities for social construction of meaning through interaction, a process that is essential for comprehension according to sociocultural theory (Tanveer et al., 2023; Zhang & Karim, 2024).

Although cooperative learning strategies such as Think-Pair-Share (TPS) have a proven international research background for raising reading comprehension and students' engagement levels, their usage in Pakistani education is still very limited due to overcrowded classes, minimum teacher training in cooperative strategies, and strong traditions of traditional forms of instruction. Therefore, direct quasi-experimental research regarding the use of TPS compared to traditional teacher-centred instruction in a single Pakistani ESL sample is not available. Without such studies, the use of cooperative learning in ESL reading instruction depends mainly on international data, while the applicability of this data to unqualified Pakistani classrooms has not been tested yet. This issue is solved in this study by testing the hypotheses about the effectiveness of TPS as compared to the traditional teaching approach already used in the institutions.

Literature Review

Reading Comprehension in ESL Contexts

According to existing knowledge, reading comprehension can be perceived as a dynamic process, wherein text information and prior knowledge are combined in a way that facilitates sense-making, rather than just decoding words (Al-Mekhlafi & Al-Busaidi, 2020; Chou, 2021). It is also clear that among ESL learners the comprehension process is shaped by a variety of characteristics that include vocabulary knowledge, awareness, procedures used, personal motivation, and memory capacity (Rehman et al., 2021; Lin & Lee, 2021; Nasir et al., 2022). In Pakistan in particular, the existence of insufficient vocabulary knowledge, the use of non-contextualized reading material, and a tendency toward grammar-translation approaches are identified as the main obstacles to successful reading comprehension among the students learning English as a second language (Sarwar et al., 2024; Imran & Begum, 2023; Gulzar & Ghani, 2021).

Cooperative Learning and Think-Pair-Share

Cooperative learning emerged from research in psychology in the 1950s concerning interdependence among groups. However, its actual implementation in classrooms was worked on by several

researchers, including Johnson and Slavin during the years that followed. While grouping learners is an important part of cooperative learning, this method is built on five foundations, namely: positive interdependence, personal responsibility, face-to-face communication among group members, ability to work with social skills, and group processing. Studies have shown that when done right, cooperative learning brings about better results than methods involving individualistic or competitive instruction in terms of students' academic performance (Slavin, 1983, 1990; Abramczyk & Jurkowski, 2020).

Out of cooperative learning strategies, Think–Pair–Share (Lyman, 1981) has the minimum structural complexity and permits independent thinking, working with a partner, and doing class-wide sharing without the need for the regrouping of expert group as in Jigsaw or the scoring system that goes with Student Teams-Achievement Divisions. Simplicity of this strategy makes it especially applicable in large classes and tight schedules with little experience of structured teamwork (Agussatriana, 2020).

Empirical Evidence for TPS in Reading Instruction

An increasing number of studies draws connections between the use of TPS and enhanced reading comprehension, more confident learners and willingness of students to take an active role in the classroom, especially in situations when students used to be taught in a teacher-dominated way (Agussatriana, 2020; Adl-Amini, Völlinger, & Eckart, 2023). There is a notion that the individual “think” stage occurring before peer discussion ensures that every student works with the text independently before negotiating meaning socially, which brings about success in TPS usage even among teachers that have never used this approach before. However, research describing the advantages of TPS in comparison with traditional teacher-centered instruction is still scarce, especially in the context of a certain sample from Pakistan or South Asia (Lu & Xu, 2024).

Traditional Teacher-Centred Instruction

Traditional teacher-centred is based on a traditional model, where students attend lectures, teachers explain the subject matter, students perform independent silent reading, ask and answer questions (Kiran et al., 2021; Utami & Agustin, 2025). Even though this approach allows for information to be presented to many people at once, during information-giving activities social interaction opportunities are much lower compared to those advocated by sociocultural and cooperative learning theories in regards to the comprehension process (Zhang & Karim, 2024; Tanveer et al., 2023). The control condition is defined as conventional instruction due to being the basis for any suggested alternative against which any new method has to be evaluated..

Cooperative Learning in Pakistan and Comparable ESL/EFL Contexts

Although research on cooperative learning in higher education in Pakistan is not extensive, the limited works that do exist point to a common trend: although cooperative practices are considered valid theoretically, they are seldom executed at ground level because of large classes, insufficient teacher training for the group approaches, and assessment practices based on independent evaluation of performance (Alvi & Noreen, 2024; Naveed, 2021; Qureshi et al, 2023). The same trend is marked in other contexts in South Asia and East Asia, where research on cooperative learning gives positive results regarding both learning outcomes and attitudes but begs for clarification concerning the methodological aspect of implementation of cooperative learning (Al Fadda, Abdel Haliem, & Mahdi, 2023; Alsanie & Sabir, 2019).

Research Gap

Despite the fact that the literature shows strong support for how cooperative learning can enhance ESL reading comprehension, there is a lack of quasi-experimental evidence that exemplifies how Think-Pair-Share works specifically against traditional teacher-centered learning in Pakistan's higher education institutions.

Theoretical Framework

The present study is based on two complementary theory frameworks. One of those frameworks is Vygotsky's (1978) social constructivist theory, which holds that high order cognition, such as reading comprehension, is socially constructed in the context of Zone of Proximal Development (ZPD). Students accomplish things with the help of their peers or teachers that they're not yet able to do by themselves. The Think-Pair-Share approach implements this principle by integrating peer discussion into the reading task, thus letting the students negotiate meaning with a partner before proceeding on to the whole class activity. By means of this theoretical framework, the Think-Pair-Share (TPS) is expected to be better than the conventional instructional strategies not because TPS would lead to spending more time on a task, but because it makes the students explain and correct their understanding of the text through peer dialogue.

Research Objectives

The study was guided by the following objectives:

- To examine the effect of the Think–Pair–Share (TPS) technique on the reading comprehension skills of undergraduate ESL students in Karachi in comparison with traditional teacher-centred instruction.
- To determine the extent to which reading comprehension skills improve within the TPS group from pretest to posttest.
- To determine the extent to which reading comprehension skills improve within the traditional teacher-centred instruction (control) group from pretest to posttest.
- To compare the posttest reading comprehension scores and gain scores of students in the TPS and control groups after establishing baseline equivalence at the pretest stage.

Research Questions

RQ1. What is the effect of the Think–Pair–Share (TPS) technique on the reading comprehension skills of undergraduate ESL students in Karachi, compared with traditional teacher-centred instruction?

RQ1a. To what extent does reading comprehension improve within the TPS group from pretest to posttest?

RQ1b. To what extent does reading comprehension improve within the traditional-instruction control group from pretest to posttest?

RQ1c. Do TPS and control-group students differ significantly in posttest reading comprehension scores, and in gain scores, after confirming baseline equivalence?

Hypotheses

The following directional hypotheses were formulated a priori from the research questions and theoretical framework:

H1: TPS and control-group students do not differ significantly in reading comprehension at pretest (baseline equivalence).

H2: TPS students demonstrate a statistically significant improvement in reading comprehension from pretest to posttest.

H3: Control-group students demonstrate a statistically significant improvement in reading comprehension from pretest to posttest.

H4: TPS students score significantly higher than control-group students on the posttest.

H5: TPS students demonstrate significantly greater gain scores (posttest minus pretest) than control-group students.

For each hypothesis, the corresponding null hypothesis (H0) states that no statistically significant difference exists between the compared conditions.

Methodology

Research Design

In this research, quasiexperimental design was utilized by using a pre-test and a post-test approach, as well as quasi-experimental design in experimental research (Creswell & Creswell, 2023). As a random way of assigning participants in such an experiment didn't work here, two intact classrooms were assigned logically to experimental and control groups of the experiment, which is regarded as an accepted practice in quasi-experimental educational studies (Cohen, Manion, & Morrison, 2018; Creswell & Creswell, 2023)..

Setting and Participants

The research was carried out in a public university situated in Karachi, Pakistan, focusing on undergraduate ESL learners who are pursuing their degree in the BS English programme. The research sample consisted of the sixth-semester students who had enrolled in the course of 19th Century Poetry (EG-523) whereby the competence to read, interpret literary texts, and comprehend authentic English prose and poetry is needed. The total number of participants constituted of two intact groups (n = 71). One was referred to as the TPS group (n = 36) and another group involved in traditional method of instruction.

Table 1. Group Allocation and Sample Distribution (N = 71).

Group	Technique	n	% of Sample
Experimental Group	Think–Pair–Share (TPS)	36	50.7%
Control Group	Traditional Teacher-Centred Instruction	35	49.3%
Total	—	71	100%

Data Collection Instruments

The reading comprehension was evaluated using a reading comprehension test consisting of 50 questions taken from Lee (2022) with context-related adjustments performed by the researcher in discussion with specialists in the subject area. Correct answers were scored on a scale of zero to one point (maximum possible score: 50). The same conditions of the test (90 minutes, using printed illustrations token and keeping the same seating arrangements) were used for both pretest and posttest in TPS group and control group too.

Reliability and Validity

The pilot study conducted with 40 subjects who did not take part in the main study was used to determine the reliability of the instrument. The results showed good internal consistency (Cronbach's $\alpha = .85$ for the pretest, $.84$ for the posttest) and very good test–retest reliability ($r = .81$, $p < .001$) after one week. In terms of validity, the instrument was considered valid on the following grounds: its content validity, confirmed the item relevance to study objectives; face validity, confirmed through feedback in the pilot study, and approved by English experts, who provided their comments on the items.

Table 2. Reliability Evidence for the Reading Comprehension Instrument (Pilot n = 40). * $p < .001$. Intervention Procedures (14 Weeks)

Instrument	Reliability Statistic	Value	Interpretation
Pretest	Cronbach's α (internal consistency)	.85	Good
Posttest	Cronbach's α (internal	.84	Good

Instrument	Reliability Statistic	Value	Interpretation
	consistency)		
Pretest/Posttest	Test–retest (Pearson r), 1-week interval	.81*	Strong stability

Both groups were taught from the same materials, learning goals, reading material, and the number of instructional hours (14 90-minute sessions) as outlined in the syllabus of 19th Century Poetry. The only difference between the conditions is the teaching method.

Table 3. Summary of the Two 14-Week Instructional Protocols.

Group	Core Structure	Teacher's Role
TPS	Think (individual reflection) → Pair (partner discussion) → Share (whole-class discussion), repeated across comprehension prompts each session	Poses guiding questions; times phases; facilitates whole-class synthesis
Control	Lecture → individual silent reading → teacher explanation → whole-class Q&A	Delivers content via lecture; leads Q&A; assigns individual reading

Data Collection Procedure

The collection of data was conducted in three stages throughout a period of 16 weeks. The process started in week 0, when informed consent was obtained and reading comprehension pretest was administered to both of the given groups. During weeks 1–14, each of the groups was instructed according to the assigned method while teaching the same material within a unified time frame. At week 15, reading comprehension posttest was conducted for both groups in controlled and harmonious conditions.

Ethical Considerations

The study followed the required procedures for human subjects' research. As participation was voluntary, the students' grades and academic status were not affected by their participation; the instrument for measuring reading comprehension worked independently of the grading procedure used by the university. Written informed consent was provided to all participants prior to data collection. The research was conducted as a part of a PhD study supervised by Dr. Muhammad Asif and approved by the Board of Advanced Studies and Research, Hamdard University, Karachi (Approval Ref: BASR-104-3, dated July 22, 2025).

Data Analysis

The analysis of the findings was completed using the IBM SPSS application software. The assumption of normality and homogeneity of variances was tested using the Shapiro-Wilk and Kolmogorov-Smirnov tests along with visual inspection of box plots for detecting outliers. For each group, descriptive statistics were assessed in terms of the means, standard deviations, skewness and kurtosis for the pre-test, post-test, and mean difference scores. The paired samples t-test was utilized to determine the effect of the treatment on participants within the same group from pre-test to post-test conditions. Since the current analysis involved two groups, the t-test was used to assess baseline equivalence, post-test comparison of the mean performance of participants, and the comparison of the mean differences of both groups. We reported the effect sizes and 95% confidence intervals and applied the alpha level of .05 for all tests.

Results

Preliminary Analyses and Assumption Testing

All the 71 subjects who passed through the pretest phase also took part in the posttest phase (TPS n =

36; Control $n = 35$), making it a 100% success rate with no absence of any of the participants.

Normality. For testing normality, Shapiro–Wilk and Kolmogorov–Smirnov (Lilliefors-corrected) tests were conducted on pretest, posttest, and difference in scores for each participant group. In the case of TPS pretest scores, Shapiro–Wilk test showed significant normality violation, while Kolmogorov–Smirnov test results showed only marginal deviation ($D = .145$, $p = .056$); TPS posttest and difference in scores from pretest did not show any violation of normality ($W = .966$, $p = .319$; $W = .964$, $p = .277$); in the case of control group, at least one of the tests (Shapiro–Wilk) indicated significant violation of normality ($W = .900$, $p = .004$; $D = .183$, $p = .005$), while for control pretest and posttest scores, normality assumption was not violated ($W = .969$, $p = .422$; $W = .949$, $p = .105$). Taking into account moderate sample sizes of the groups ($n = 35$ – 36) and well-known robustness of the t-test toward moderate violations of normality, paired and independent-samples t-tests are proposed as the analyses to be used here.

Descriptive Statistics

Table 4. Descriptive Statistics for Pretest, Posttest, and Gain Scores by Group ($N = 71$). Maximum possible score = 50 on both pretest and posttest. Gain = Posttest – Pretest.

Group	n	Pretest M (SD)	Posttest M (SD)	Gain M (SD)	Skew (Gain)	Kurtosis (Gain)
TPS	36	25.28 (3.09)	43.94 (2.88)	18.67 (4.11)	-0.07	-0.57
Control	35	25.00 (4.61)	31.89 (4.23)	6.89 (5.27)	1.01	0.71

Baseline Equivalence (H1)

Based on the independent-samples t-test conducted on the pretest scores, results showed that the TPS and control groups did not differ significantly as regards their scores prior to instructional intervention. $t(69) = 0.30$, $p = .764$, 95% CI [-1.57, 2.13], Cohen's $d = 0.07$. Hence, since the effect size was very small, such result allows to assume that any differences observed after the intervention process occurred due to the method rather than other factors.

Within-Group Change (RQ1a, RQ1b; H2, H3)

Using paired-samples t-tests demonstrated significant improvements in reading comprehension between the pretest and posttest for both groups (Table 5), supporting H2 and H3. However, the effect size for this improvement differed significantly: the experimental group had a large treatment effect ($dz = 4.54$), while the control group's improvement was modest ($dz = 1.31$) between the two tests.

Table 5. Paired-Samples t-Tests: Pretest vs. Posttest Reading Comprehension Scores by Group. $dz =$ Cohen's d for paired samples (mean difference / SD of difference scores).

Group	df	t	Mdiff [95% CI]	p	dz
TPS	35	27.23	18.67 [17.32, 20.01]	< .001	4.54
Control	34	7.72	6.89 [5.14, 8.63]	< .001	1.31

Between-Group Comparison: Posttest Scores (RQ1c; H4)

The independent samples t-test performed on the posttest scores of the two study groups suggests that there was a statistically significant difference between the means of the groups, with a strong effect size. Based on the results obtained, it was shown that the TPS group had a significantly higher mean score than the control group ($t(69) = 14.07$, $p < .001$, $Mdiff = 12.05$, Cohen's $d = 3.34$). The data have confirmed that the groups did not differ at the baseline stage (Section 9.3), and the pretest-posttest correlation ($r = 0.107$, $p = 0.206$) for the larger dataset from which this group is drawn was low enough (to say nothing about its non-significance) to believe that the results of the raw comparison of post-test scores are going to be similar to those obtained with the randomization regarded. Thus, the independent t-test has been chosen as the key between-group comparison method.

Gain Score Comparison (RQ1c; H5)

In an independent-sample t-test conducted, the results showed that TPS students had a significantly larger improvement in test scores compared to their counterparts in the control group, $t(69) = 10.52$, $p < .001$, $M_{diff} = 11.78$, 95% CI [9.55, 14.01], Cohen's $d = 2.50$. This finding confirms what was discovered previously in section 9.5.

Summary of Hypothesis Testing

Table 6. Summary of Hypothesis Tests.

H	Hypothesis (abbreviated)	Key Statistic	Decision
	S and control groups do not differ at pre	$t(69) = 0.30$, $p = .764$, $d = 0.07$	Supported
	group improves significantly pretest→post	$t(35) = 27.23$, $p < .001$, $d_z = 4.54$	Supported
	Control group improves significantly pretest→posttest	$t(34) = 7.72$, $p < .001$, $d_z = 1.31$	Supported
	TPS scores higher than control at posttest	$t(69) = 14.07$, $p < .001$, $d = 3.34$	Supported
	PS gain scores exceed control gain scores	$t(69) = 10.52$, $p < .001$, $d = 2.50$	Supported

Discussion

Overview of Principal Findings

The purpose of this research was to explore how effective Think–Pair–Share (TPS) is in helping students improve their reading comprehension activities in college-level English classes over a period of 14 weeks. While both groups exhibited an increase in reading comprehension skills, the level of improvement varied greatly; TPS yielded a within-group effect approximately three-and-a-half times bigger than the effect of the control group ($d_z = 4.54$ vs. 1.31), and TPS students outperformed control group students both in the posttest as well as in the gains scores.

Confirming Sociocultural and Social-Interdependence Predictions

The findings regarding TPS's advantage over traditional methods of teaching correspond to Vygotsky's (1978) view of comprehension as a socially mediated process that occurs in the Zone of Proximal Development: TPS participants took part in controlled peer discussion whereas participants from the control group underwent lecture courses and read books independently. The size of the impact ($d = 3.34$) does exceed the small-to-medium effect size which is generally observed in meta-analyses of cooperative learning (Abramczyk & Jurkowski, 2020; Dai & Wang, 2024), which suggests that the difference between the current data and purely lecture-based control is possibly profound. Moreover, the findings might provide support for social interdependence theory (Johnson & Johnson, 1999, 2021), which explains the positive impact of cooperative learning in terms of structured positive interdependence instead of mere physical proximity of students, which is precisely the method which is used in TPS's finding. The findings of this study contribute to the body of international research on the correlation of cooperative learning and reading comprehension (Abramczyk & Jurkowski, 2020; Dai & Wang, 2024; Barrot, 2021) in the context of higher education in Pakistan where previous work on cooperative learning has been mainly descriptive and attitudinal rather than comparative and quasi-experimental (Alvi & Noreen, 2024; Naveed, 2021; Qureshi et al., 2023). Thus, this study answers calls for area-specific comparative research to be conducted in South Asian countries (Lu & Xu, 2024; Farooq & Naseem, 2025).

In addition, it should be mentioned that the results for the control group were statistically significant enough to be considered important ($d_z = 1.31$). This finding indicates that the 14-week poetry based reading course produces real learning outcomes regardless of the methodology, and the advantage of the TPS methodology is not in saving a failing method, but in outperforming an already

successful one.

Why a Structurally Simple Technique May Produce Very Large Effects

The cognitive-elaboration perspectives on cooperative learning (Slavin, 1983) posit that methods that compel learners to teach their peers or explain concepts should produce the highest comprehension outcomes as explaining the material would help with understanding the material. The TPS does not order students to teach each other; it consists of separate reading, collaborative discussions, and group sharing. There are two points that clarify how this simple method achieved impressive results in this study. First, the individual phase of ‘thinking’ guarantees that the students read the text independently before the social interaction occurs, which might make it possible to apply this method more successfully than the complex approaches. Second, TPS as a simple method that requires no regrouping of expert groups or need to control the score can minimize the possibility of failure in the method implementation over the course of 14 weeks. The two observations are related to the theoretical studies that show the difference between the processes of designing and applying the cooperative learning approaches (Adl-Amini, Völlinger, & Eckart, 2023) and imply that the reliability of method application is as important for the outcome as the complexity of the method structure.

This interpretation should be taken not as a direct measure but as a reasonable interpretation based on the contrasting designs between the conditions: independent measures of implementation fidelity (e.g., classroom observation checklists) were not included in the present study, and for this reason, explanations regarding this variable regarding the size of the TPS effect must be treated as an inference rather than findings based on experiments. The detailed discussion of this limitation can be found in Section 12.

Comparison with International Findings

The direction of the current findings - cooperation being more efficacious than conventional teaching methods - is mostly in line with findings from worldwide research on TPS and reading skills which showed positive effects on understanding, self-esteem and involvement in classes (Agussatriana, 2020; Adl-Amini et al., 2023). However, the effect size is significantly larger than the usual data from similar research around the world possibly due to the dominance of lectures in comparison to all the previous studies conducted in other countries or educational situations. Thus, this finding demonstrates the importance of replication applicable to certain contexts since effect sizes should not be assumed to demonstrate uniformity across different systems (Al Fadda et al., 2023; Alsanie & Sabir, 2019).

Pedagogical Implications

The implications of these discoveries for teaching ESL in higher education in Pakistan and similar low-resource environments are several. The first implication is that the clear advantage of TPS over lectures shows that a simple cooperative method can be implemented in places with no experience in cooperative learning. This offers a good opportunity for reform in these high-learning institutions. The second implication is that due to the fact that TPS requires almost no additional teacher training or criteria for assessing work, what makes it very useful for large classrooms and teachers who do not have an experience in group activities. The third implication is that the institutions that are going to implement cooperative learning can benefit a lot from the proper introduction of TPS to the already implemented programs and experiences of interaction that are included in TPS methods. Finally, it would be necessary for several teacher-training programs to focus on the basic principles of cooperative learning instead of treating this as group meetings without any structure and set rules.

Limitations

There are a few caveats to take into consideration while interpreting findings. To begin with, and due to the nature of the institute, the study is based on the findings based on whole class sections that are not randomly selected, which means that the results can be unreliable as variables that could not be measured like the components of class, students’ grouping, and homework cannot be ignored.

Another limitation is that the one organization, which is public, and one course (19th Century Poetry) has been used for the study, which means the results are not generalizable to different organizations, disciplines, or types of texts. There is one last limitation needing to be mentioned, which is that even though the reading comprehension test that was used was proved to be reliable and valid, it was changed from the tool that was developed in a different country (Lee, 2022), so it may not be suitable for Pakistani learners of English as a second language. Fourthly, there hasn't been any independent measure of implementation fidelity that has been collected such as classroom observation. Hence, the fidelity-based explanation provided in section 10.3 of this paper related to the large TPS effect is not a finding that has been directly tested. Lastly, this paper is using a two-group subset from a larger four-condition doctoral dataset, hence some of the inferential statistics indicated in this paper as the TPS Vs. control comparison (statistical equivalence and gain score comparison) is done using group level descriptive statistics also, and not from the original two-group-specific SPSS run. The readers who require the original raw data for independent verification should get in touch with the corresponding author.

Recommendations for Future Research

Future studies need to repeat the study of this comparison in more areas, institutions, and forms of texts so that it will be possible to establish whether benefits of TPS method works in general. Longer periods of intervention and timing the posttests would allow investigation whether understanding benefits are long-lasting.

Conclusion

In this research, Think-Pair-Share was compared to traditional Teacher-centered instruction in terms of literacy development among the students taking account processes involving a quasi-experimental design of pretest-posttest as well as using of non-equivalent control groups. Both approaches demonstrated a significant progress after 14 weeks of study but the TPS method proved to be much more effective ($d_z = 4.54$ in comparison to 1.31 for the normal classroom based learning) both when a statistical approach is used to analyze the results within the subjects and when the control group is taken into account ($d = 3.34$) and gain scores ($d = 2.50$). The current findings provide further support for the predictions of sociocultural and social interdependence theory that suggest that peer-support activities are more relevant than the traditional lecturing approach.

Declarations

Funding This research received no external funding. The study was self-funded by the author as part of a PhD thesis project.

Data Availability The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Competing Interests The author declares no competing interests.

Ethical Approval This study was conducted as part of a PhD research project under the supervision of Dr. Muhammad Asif and approved by the Board of Advanced Studies and Research, Hamdard University, Karachi (Approval Ref: BASR-104-3, dated July 22, 2025).

Informed Consent Informed consent was obtained from all individual participants included in the study.

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