

THE IMPACT OF JIGSAW COOPERATIVE LEARNING TECHNIQUE IN ENHANCING THE ENGLISH PERFORMANCE OF GRADE 4 PUPILS

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ABSTRACT

This study determined the impact of the Jigsaw Cooperative Learning Technique on the English performance of Grade 4 pupils at Raffles American School, Bangkok. Specifically, the study examined the pupils' pre-test and post-test performance and their perceptions of the Jigsaw Technique in terms of motivation and engagement, understanding and learning, collaboration and peer support, and confidence and communication. The study employed a quasi-experimental research design using pre-test and post-test assessments. The respondents consisted of 77 Grade 4 pupils during the School Year 2025–2026. A researcher-made English Achievement Test and perception survey questionnaire were utilized as the primary instruments of the study. Statistical tools such as frequency, percentage, mean, standard deviation, paired samples t-test, Mann-Whitney U test, and correlation analysis were used to analyze the data. Findings revealed that pupils' post-test scores significantly improved after the implementation of the Jigsaw Cooperative Learning Technique. Pupils also demonstrated positive perceptions toward the strategy. The study concluded that the Jigsaw Cooperative Learning Technique effectively enhances English performance, participation, collaboration, and communication skills among elementary learners.

Keyword: *Jigsaw Technique, Cooperative Learning, English Performance, Grade 4 Pupils*

1. INTRODUCTION

Education continuously evolves to address the needs of 21st-century learners. Modern educational systems emphasize learner-centered instruction, collaboration, critical thinking, communication, and active participation inside the classroom. Traditional teacher-centered approaches often limit pupils' opportunities to engage meaningfully in learning activities. As a result, learners may become passive recipients of information rather than active participants in the learning process.

English plays a vital role in elementary education because it serves as a medium of communication and instruction. At the Grade 4 level, pupils are expected to demonstrate competencies in reading comprehension, vocabulary development, grammar usage, listening, and oral communication. However, many learners encounter difficulties in English due to low confidence, lack of participation, and limited opportunities for interaction.

One instructional strategy that promotes active learning is cooperative learning. Cooperative learning allows learners to work collaboratively in small groups while sharing ideas and responsibilities. Among the different cooperative learning strategies, the Jigsaw Cooperative Learning Technique is considered highly effective because it encourages peer teaching, accountability, and collaboration.

The Jigsaw Technique requires pupils to master a specific lesson segment and later teach the information to their groupmates. Through this process, learners become active contributors in the classroom. The strategy promotes interaction, teamwork, confidence, and deeper understanding of concepts.

Anchored on Vygotsky's Social Constructivist Theory, the study emphasizes that learning occurs through interaction and collaboration with others. Cooperative learning environments provide opportunities for learners to construct knowledge collectively. The Jigsaw Technique aligns with

these principles by encouraging peer support and collaborative problem-solving.

This study aimed to determine the impact of the Jigsaw Cooperative Learning Technique on the English performance of Grade 4 pupils at Raffles American School, Bangkok.

2. REVIEW OF RELATED LITERATURE

Cooperative learning is a teaching approach that encourages learners to work together to accomplish shared goals. According to educational researchers, cooperative learning promotes active participation, social interaction, communication, and critical thinking. It shifts the classroom environment from teacher-centered instruction to learner-centered engagement.

The Jigsaw Technique was developed by Elliot Aronson in the 1970s to promote cooperation and reduce competition among students. In this strategy, pupils are divided into groups where each member becomes responsible for mastering a specific topic. Learners then teach their assigned topics to their home groups. This process encourages accountability and collaboration.

Gillies (2020) explained that cooperative learning strategies improve academic achievement and classroom participation because learners become actively engaged in discussions and collaborative activities. Similarly, Vygotsky's Social Constructivist Theory highlights the importance of interaction in the learning process.

Research studies have demonstrated the effectiveness of the Jigsaw Technique in English instruction. Handayani et al. (2022) found that Jigsaw activities improved students' reading comprehension and vocabulary acquisition. Katemba and Sianipar (2020) reported that cooperative learning strategies enhanced learners' motivation and confidence.

Widodo and Mugiyo (2021) further emphasized that cooperative learning promotes oral communication skills and classroom interaction. Learners become more confident in expressing ideas and participating in discussions. Cooperative learning also helps pupils develop teamwork, empathy, and leadership skills.

Recent studies continue to support learner-centered and collaborative instructional approaches in elementary education. Through meaningful interaction and peer teaching, learners

develop deeper understanding and improved academic performance.

3. METHODOLOGY

This study employed a quasi-experimental research design using pre-test and post-test assessments to determine the effectiveness of the Jigsaw Cooperative Learning Technique in improving pupils' English performance.

The respondents of the study consisted of 77 Grade 4 pupils from Raffles American School, Bangkok during the School Year 2025–2026. Convenience and purposive sampling techniques were utilized because the participants were directly handled by the researcher.

The primary instruments used in the study were a researcher-made 30-item English Achievement Test and a perception survey questionnaire. The English Achievement Test measured pupils' competencies in reading comprehension, vocabulary development, grammar usage, and communication-related comprehension skills.

The perception survey questionnaire measured pupils' attitudes toward the Jigsaw Technique in terms of motivation and engagement, understanding and learning, collaboration and peer support, and confidence and communication.

The instruments underwent validation by English teachers and subject matter experts to ensure content validity. Pilot testing was also conducted, and the reliability coefficient using Cronbach's Alpha yielded a value of 0.76, indicating acceptable reliability.

The researcher secured permission from school authorities before conducting the study. Pre-tests were administered prior to the implementation of the Jigsaw activities. After several sessions utilizing the Jigsaw Cooperative Learning Technique, post-tests and survey questionnaires were administered.

The gathered data were analyzed using frequency, percentage, mean, standard deviation, paired samples t-test, Mann-Whitney U test, and correlation analysis.

4. RESULTS AND DISCUSSION

The demographic profile revealed that the majority of the respondents were nine years old, while the remaining respondents were ten years

old. Female pupils slightly outnumbered male pupils. The balanced distribution of respondents provided a reliable representation of Grade 4 learners.

The pre-test results revealed that most pupils performed at the “Good” level with a mean score of 17.77, interpreted as Moderate to High Proficiency. The findings indicated that pupils already possessed foundational English skills before the implementation of the intervention. However, several learners still demonstrated difficulties in vocabulary, grammar, and reading comprehension.

After the implementation of the Jigsaw Cooperative Learning Technique, pupils’ performance significantly improved. The post-test mean increased to 25.01, interpreted as Excellent or High Mastery of Skills. Most pupils achieved excellent performance levels after participating in collaborative learning activities.

The paired samples t-test revealed a statistically significant difference between the pre-test and post-test scores, $t(76) = -13.884$, $p < .001$. Since the computed p-value was lower than the significance level of .05, the null hypothesis was rejected. This indicated that the Jigsaw Cooperative Learning Technique significantly improved the English performance of Grade 4 pupils.

The findings support previous studies emphasizing that cooperative learning strategies improve comprehension, participation, communication skills, and academic achievement. Through peer interaction and collaborative learning, pupils become more engaged and motivated during classroom activities.

In terms of pupils’ perceptions, Collaboration and Peer Support obtained the highest overall mean of 3.48, interpreted as Agree. Motivation and Engagement and Understanding and Learning both obtained an overall mean of 3.44, while Confidence and Communication received a mean of 3.43.

The results suggest that pupils enjoyed participating in collaborative learning activities. They appreciated opportunities to interact with classmates, exchange ideas, and assist one another during lessons. Learners also demonstrated increased confidence in speaking English and participating in classroom discussions.

The findings align with Vygotsky’s Social Constructivist Theory, which explains that learning becomes more meaningful when learners collaborate and interact with peers. The Jigsaw Technique creates a positive classroom environment where learners actively construct knowledge together.

5. CONCLUSION

The findings of the study revealed that the Jigsaw Cooperative Learning Technique significantly improved the English performance of Grade 4 pupils. The substantial increase in post-test scores demonstrated the effectiveness of the strategy in enhancing reading comprehension, vocabulary development, grammar usage, and communication skills.

Pupils also demonstrated positive perceptions toward the Jigsaw Technique, particularly in terms of collaboration, engagement, and confidence. The strategy promoted active participation, peer interaction, and meaningful learning experiences among learners.

Therefore, the study concludes that the Jigsaw Cooperative Learning Technique is an effective learner-centered instructional approach for English instruction among elementary pupils.

6. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

1. English teachers should integrate cooperative learning strategies such as the Jigsaw Technique into classroom instruction to promote active participation and engagement.
2. School administrators should support teacher training programs focused on learner-centered and collaborative instructional approaches.
3. Future researchers may conduct similar studies across different grade levels, subjects, and educational settings to further validate the effectiveness of the Jigsaw Technique.
4. Teachers should continue developing engaging classroom activities that encourage collaboration, communication, and peer interaction among learners.

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