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Enhancing Students' Discussion Skills through the Two Stay Two Stray Cooperative Learning Model: A Short Literature Review

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ABSTRACT

This study analyzes the application of the Two Stay Two Stray (TSTS) cooperative learning model in improving students' discussion skills across different educational levels. Using a library research method, ten articles published between 2020 and 2024 were systematically reviewed via Google Scholar. The results reveal that the method significantly enhances students' speaking confidence, motivation, and academic performance. It also fosters collaborative learning and creates an engaging classroom atmosphere. However, common barriers include limited discussion skills, weak peer interaction, and an unconducive learning environment. Despite these challenges, the TSTS model proves to be an effective strategy for promoting active learning, critical thinking, and communication skills. The study recommends that teachers continuously encourage participation and utilize diverse media to optimize learning outcomes. This review contributes valuable insights into the strengths and limitations of the model and offers practical recommendations for its effective implementation across various educational settings.

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1. INTRODUCTION

An effective learning model is a crucial component in delivering instructional material and ensuring student engagement (Leniati, 2021). However, many teachers today struggle to select instructional models that align with their subject matter and classroom dynamics (Lonardi *et al*., 2024). A recurring issue in educational institutions is the lack of innovation in teaching approaches. When certain techniques are applied, they are often categorized as traditional and used repeatedly without meaningful updates. As a result, students frequently become passive due to limited classroom interaction, and their reluctance to respond to questions prevents teachers from accurately assessing their level of understanding (Aji & Wulandari, 2021).

Learning strategies (defined as structured combinations of materials and procedures) are designed to achieve specific educational outcomes (Khoerunnisa *et al*., 2020). These strategies must be regularly adjusted or developed to remain effective, necessitating the selection of appropriate learning models to implement them successfully (Polii & Polii, 2022). Teachers and prospective educators are thus expected to modify and adapt instructional models according to the context. Since no single model suits all learning conditions, teachers must consider a range of factors, including student characteristics, instructional content, available resources, and their own pedagogical competencies.

Persistent low academic performance among students can be attributed to the continued use of teacher-centered methods, which often render lessons monotonous and disengaging (Jefri *et al.,* 2019). Although some educators attempt to use innovative strategies, the lack of sustained interest often leads them back to conventional models (Kadiriandi & Ruyadi, 2017). It is essential, therefore, for educators to design lesson plans that not only meet curricular goals but also foster meaningful student involvement. One promising approach is cooperative learning, which reflects human social nature and encourages collaboration in achieving shared goals. In this framework, students learn to share knowledge, exchange experiences, and assume responsibility within groups. A particularly effective cooperative model is Two Stay Two Stray (TSTS), which enables students to interact across groups, ask questions, explain concepts, and listen to peer insights in an active and supportive setting (Astuti *et al*., 2024; Bali, 2020).

The development of speaking and discussion skills is central to effective learning. Engaging in discussions allows students to articulate ideas, reflect critically, and deepen conceptual understanding (Roma *et al*., 2022; Kaleka & Rudhito, 2024). The TSTS method has been shown in multiple studies to enhance students' communication abilities and increase classroom engagement. Building on this evidence, the present study systematically reviews literature on the implementation of the TSTS model to strengthen discussion skills across educational contexts.

Unlike previous studies that focused solely on quantitative outcomes or limited educational levels, this study contributes a comprehensive synthesis of research findings between 2020 and 2024, emphasizing the model's pedagogical value and implementation challenges. Its novelty lies in identifying both the benefits and barriers of the TSTS method in developing discussion-based learning, offering evidence-based recommendations to inform future classroom practices and instructional design.

2. METHODS

This study presents a systematic literature review that analyzes the impact of the TSTS cooperative learning model on students' discussion skills. Articles published between 2020

and 2024 were collected from the Google Scholar database. The review focused on experimental studies, action research, and case studies conducted at various educational levels, including primary, secondary, and higher education.

Data analysis was carried out by synthesizing the findings from each study, with a particular emphasis on the relationship between the implementation of the TSTS model and the enhancement of students' discussion abilities. The review also identified common challenges encountered during implementation, such as difficulties in group management, limited peer interaction, and the role of the teacher in facilitating the process. Articles addressing these issues provided valuable insights into possible solutions for improving the effectiveness of the model. Overall, this review highlights the strengths and limitations of existing research and offers recommendations for future studies on the TSTS cooperative learning model.

3. RESULTS AND DISCUSSION

This section summarizes recent research findings on how the TSTS method enhances students' discussion skills. Ten studies published between 2020 and 2024 investigated the relationship between the TSTS model and students' ability to engage in academic discussions. Several of these studies reported that the method significantly strengthens students' discussion skills.

Students' average discussion ability increased by 13.59 points after the implementation of the TSTS model, as shown by pre- and post-action test results (Wahyuni, 2021). Students also became more enthusiastic and less passive during learning activities because each group member was assigned specific responsibilities (Bali, 2020). By participating in learning based on the TSTS model, students were more active in class, collaborated with their peers, and engaged in group discussions to solve problems and improve their understanding of the material (Aji & Wulandari, 2021).

In terms of academic performance, studies consistently reported improvements in students' learning outcomes. The TSTS method led to a notable increase in student achievement, with learning mastery rising from 66.32% in the first cycle to 84.52% in the second (Harefa *et al*., 2024). Another study showed similar results, where students' performance improved from a total score of 1930 (average 64, learning completeness 60%) in the first cycle to 2235 (average 75, learning completeness 87%) in the second cycle (Sukarsana, 2022). Furthermore, the class average score increased from 7.31 before the use of the TSTS model to 12.59 after the first cycle, showing a significant improvement of 5.28 points, which was maintained in the second cycle (Sumiatie, 2019).

In addition to improving learning outcomes, the TSTS model encouraged active student participation during lessons and enhanced their comprehension of discussion topics. This research also summarizes findings from various studies regarding the application of the TSTS cooperative learning model in educational environments. A consistent theme across these studies is the model's positive impact on student motivation, learning outcomes, and discussion skills. The TSTS method has been effectively implemented across multiple subject areas, including chemistry and social science, where it has led to improved student engagement and academic performance. Several studies reported increases in student learning outcomes and motivation by as much as 8% following the implementation of the method. The summarized findings from these studies include the following key points:

(i) The TSTS method increases students' confidence in public speaking and encourages enthusiasm during discussions. Students demonstrated stronger mastery of discussion topics and were able to articulate their arguments with clear and logical reasoning.

(ii) Learning outcomes improved significantly, with the average class score rising from 29.63% before the intervention to 83.63% by the end of the second cycle.
(iii) The method facilitates group learning in an enjoyable and meaningful way, contributing to a positive classroom atmosphere
(iv) Students are trained to collaborate and engage in peer discussions to solve academic problems.
(v) Learning activities become more interactive and enjoyable, which enhances students' motivation and promotes more communicative behavior.
(vi) The TSTS model provides equal opportunities for all students to express their opinions and develop social skills by participating in group exchanges and discussions.
(vii) Students' social skill indicators improved across cycles, with scores that initially did not reach 70% in the first cycle increasing to 70% or higher by the third cycle.
(viii) Teachers act as facilitators under this model, guiding students and supporting the development of critical thinking.
(ix) The strategy has the potential to significantly enhance students' learning abilities, positively affecting academic achievement and the overall quality of classroom instruction.
(x) The use of varied multimedia, such as educational videos, can make the learning process more effective and engaging for students.

In addition, the TSTS method has been proven to improve both learning outcomes and discussion skills. Research shows that learning completeness increased by 27% following the implementation of this method. This aligns with previous findings, which confirm that the model not only enhances academic performance but also promotes students' discussion skills, contributing to a more enjoyable and interactive group learning environment (Wahyuni, 2021).

Despite its advantages, several challenges in implementing the TSTS method have been identified. **Table 1** summarizes the common barriers reported in the reviewed studies, including low levels of social interaction, limited discussion skills, and an unconducive classroom atmosphere. These issues can hinder the effectiveness of cooperative learning.

To address these challenges, educators are encouraged to adopt more responsive and student-centered teaching approaches that foster both social and discussion skills. In particular, teachers should continuously motivate students and create a supportive learning environment that builds confidence and promotes meaningful participation during group activities (Sahalluddin *et al*., 2023).

Table 1. Barriers in implementing the TSTS method and suggested solutions.

Barrier	Description	Suggested Solution
Low social interaction	Students are reluctant to interact with peers, limiting opportunities for meaningful collaboration.	Provide continuous motivation and structured group activities to build confidence and encourage interaction.
Low discussion skills	Students tend to avoid group discussions or are unfamiliar with collaborative learning strategies.	Implement scaffolded discussion techniques and provide modeling of effective group behavior.
Unconducive classroom atmosphere	Students are often distracted, talking to themselves or engaging in unrelated activities, which disrupts the group learning process and hinders productivity.	Establish clear behavioral expectations, create engaging tasks, and monitor group dynamics effectively.

The implementation of the TSTS cooperative learning model aligns closely with contemporary pedagogical trends that emphasize active learning, student-centered instruction, and 21st-century competencies.

One of the key reasons for the TSTS model's effectiveness in improving discussion skills lies in its alignment with constructivist theory, which posits that learners build knowledge through social interaction and collaboration. Within the TSTS framework, students not only absorb information from instructional content but also reinterpret it through peer dialogue, reflective questioning, and knowledge sharing (Kaleka & Rudhito, 2024).

This model supports metacognitive development, as students must plan what they will say, respond to spontaneous input from peers, and adjust their arguments in real-time. Consequently, learners become more aware of their thought processes and improve their critical thinking and articulation. Such cognitive and affective engagement is rarely seen in traditional teacher-led classrooms, where verbal participation is often monopolized by a few confident students (Jefri *et al*., 2019). The TSTS model equalizes this distribution of participation, giving every student a voice through structured group exchanges.

Furthermore, the model complements collaborative learning paradigms in which students are not passive recipients but active participants in the co-construction of knowledge. Through the rotation of “strayers” and “stayers,” all students become knowledge agents. This dual role deepens their ownership of learning because they must internalize the material well enough to explain it to others and to critically assess the explanations received. This dynamic foster the reciprocal teaching strategy and reinforces peer accountability.

Despite the many strengths of the TSTS model, its success is contingent upon teacher readiness and institutional support. A recurring challenge across reviewed studies is the teacher’s ability to facilitate discussions effectively while maintaining group dynamics. Teachers must have not only strong content knowledge but also advanced classroom management and scaffolding skills. For example, students with differing abilities or learning paces may require differentiated tasks within the same TSTS cycle to maintain equitable participation.

Moreover, lesson planning for TSTS takes more time than traditional methods, as it requires the creation of open-ended prompts, careful group arrangement, and formative assessment strategies that measure both individual and group performance. Educators may need ongoing professional development to master these skills. Indeed, some researchers (Sahalluddin *et al*., 2023) recommend integrating classroom simulations and mentoring programs to train teachers in implementing this model in real classrooms.

Another practical concern is the physical and time limitations in certain classrooms. TSTS demands mobility and adequate time for discussions and transitions between groups. Overcrowded classrooms or time-constrained schedules may impede the method’s optimal use. Creative modifications, such as using digital platforms for "virtual stray" activities, can address some of these issues.

An emerging trend in TSTS implementation is the integration of technology, particularly in blended or online learning environments. The COVID-19 pandemic accelerated digital transitions in education, opening new possibilities for collaborative models like TSTS to be adapted through digital tools. Platforms such as Google Meet, Zoom breakout rooms, Padlet, and Jamboard have enabled virtual group interactions that mirror TSTS dynamics. Through such media, students can "visit" other groups’ digital boards or recordings asynchronously, reducing logistical barriers and extending learning beyond the classroom.

Digital TSTS models also support inclusivity, as shy or introverted students may find it easier to contribute in written or digital formats. Moreover, the use of technology allows for the documentation and analysis of student interactions, which can be reviewed by teachers for feedback and assessment purposes.

However, the integration of TSTS and technology requires digital literacy training for both teachers and students. There is also the risk of increased cognitive load and distraction. Thus, clear instructional guidelines, time management, and purposeful digital tool selection are essential.

Beyond cognitive gains, the TSTS model holds potential in enhancing social-emotional learning (SEL). As students engage in respectful dialogue, listen to differing opinions, and provide constructive feedback, they practice empathy, tolerance, and emotional regulation. These skills are fundamental for education for sustainable development (ESD) and the Sustainable Development Goals (SDGs), especially SDG 4 (Quality Education), which promotes inclusive, equitable, and lifelong learning.

The collaborative and inclusive nature of the TSTS model supports classroom equity. It prevents the marginalization of less confident students by assigning them clear roles and ensuring they have structured opportunities to speak. This sense of psychological safety is essential for promoting students' self-efficacy and democratic participation in academic discourse.

In multicultural classrooms, TSTS can be adapted to incorporate local wisdom, cultural narratives, and indigenous perspectives, thereby enriching the discussion content and validating students' diverse identities. Such cultural responsiveness is particularly relevant in plural societies like Indonesia, where inclusive education is a constitutional mandate.

4. CONCLUSION

The TSTS cooperative learning model has demonstrated significant effectiveness in enhancing students' discussion skills and academic achievement. By encouraging peer interaction, active participation, and group responsibility, this method fosters a more dynamic and engaging classroom environment.

It also supports the development of students' confidence, motivation, and social competencies. However, the implementation of this model is not without challenges. Issues such as limited social interaction, low discussion skills, and an unconducive classroom atmosphere can hinder its success.

Addressing these barriers requires educators to take a proactive role in facilitating group dynamics, modeling discussion techniques, and continuously motivating students throughout the learning process. Overall, the findings from this review highlight both the pedagogical benefits and practical challenges of the TSTS method. Future research is encouraged to explore innovative strategies and support mechanisms to further enhance its application across diverse educational settings.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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