



Improving Elementary Students' Soccer Dribbling Skills Through the STAD Cooperative Learning Model: A Classroom Action Research

Ahmad Yani*, Dadang Warta Chanra W.K, Jamaludin

Universitas Pendidikan Mandalika, Indonesia

Article Info

Article History:

Received August 2024

Revised August 2024

Accepted September 2024

Available Online October 2024

Keywords:

cooperative learning; STAD model; physical education.

Abstract

This study investigated the effectiveness of the Student Teams Achievement Division (STAD) cooperative learning model in improving elementary school students' soccer dribbling skills and learning participation in physical education classes. The study employed a Classroom Action Research design conducted in two cycles involving 32 fifth-grade students at SDN Tiwu Asem, Indonesia, during the 2022/2023 academic year. Data were collected through cognitive, affective, and psychomotor assessments, as well as classroom observations. The findings demonstrated a significant improvement in students' learning mastery, increasing from 68.77% in Cycle I to 90.62% in Cycle II. The implementation of the STAD model also enhanced students' collaborative engagement, active participation, and motor skill performance during soccer learning activities. These findings suggest that cooperative learning strategies, particularly the STAD model, can serve as an effective pedagogical approach for improving physical education learning outcomes at the elementary school level

*Correspondence Address : Mataram, Indonesia
E-mail : yani86201@gmail.com

INTRODUCTION

Education plays a fundamental role in developing students' cognitive, affective, and psychomotor abilities in order to prepare individuals who are capable of adapting to social and technological changes in modern society. The essence of education is the holistic transformation of learners' character and competencies toward better quality and lifelong development. Education is also understood as a conscious and systematic effort to develop human civilization and intellectual capacity (Harahap, 2016). In line with Law No. 20 of 2003 concerning the Indonesian National Education System, education is directed toward comprehensive human development, including moral, intellectual, physical, and social dimensions (Hasibuan, 2021).

In the global context, educational systems are increasingly encouraged to adopt student-centered learning approaches that promote active participation, collaboration, creativity, and problem-solving skills. This transformation is particularly important in physical education because physical education not only develops students' physical fitness but also contributes to social interaction, teamwork, communication skills, and emotional development. Physical education is therefore considered an essential component of holistic education because it supports students' optimal growth and development (Situmorang, 2022). Furthermore, physical education learning is expected to encourage lifelong healthy lifestyles through active movement experiences and sports participation (Mahardika, 2018).

Recent international studies have highlighted the importance of innovative pedagogical approaches in physical education to improve student engagement and motor skill acquisition. Cooperative learning models have been widely recognized as effective strategies for increasing students' participation, motivation, and social interaction during sports learning activities. Previous studies demonstrated that cooperative learning can significantly improve students' learning outcomes, teamwork abilities, and

communication skills in sports education contexts. In particular, the Student Teams Achievement Division (STAD) model has attracted attention because it emphasizes peer collaboration, group responsibility, and shared learning experiences.

Several studies have investigated the implementation of cooperative learning in physical education settings. For example, cooperative learning has been reported to improve students' motivation and active participation during sports instruction, while also supporting the development of psychomotor and cognitive competencies. In Indonesia, the STAD cooperative learning model has also been applied in several educational contexts and demonstrated positive effects on students' learning achievement (Irawati, 2021; Laa et al., 2017). However, most previous studies focused primarily on general classroom subjects or secondary education contexts rather than elementary physical education learning. In addition, limited studies specifically examined the effectiveness of the STAD model in improving elementary school students' basic soccer techniques, particularly dribbling skills.

Soccer is one of the most popular sports taught in elementary school physical education because it supports students' physical fitness, teamwork, coordination, and motor development (Kuswoyo & Fadlih, 2021). Effective soccer learning requires mastery of several fundamental techniques, including dribbling, passing, controlling, and shooting (Handoko, 2018). Among these techniques, dribbling is considered a basic skill that enables students to control movement, coordination, and ball possession during gameplay. Nevertheless, observational findings at SDN Tiwu Asem indicated that many students experienced difficulties in collaborative learning and skill development during soccer lessons. Students tended to focus more on individual performance rather than teamwork and peer support. Similar findings were also reported by Nasution (2021), who emphasized that students often demonstrate limited cooperation during soccer learning ac-

tivities.

The implementation of cooperative learning strategies such as STAD may address these challenges because the model encourages students to work collaboratively, assist peers with lower skill levels, and actively participate in group-based learning activities. Through cooperative interaction, students are expected to develop not only psychomotor competencies but also communication skills, social responsibility, and learning motivation. Despite the growing interest in cooperative learning approaches, there remains a limited number of classroom action research studies investigating the effectiveness of the STAD model for improving basic soccer skills among elementary school students in Indonesian physical education contexts.

Therefore, this study aims to examine the effectiveness of the Student Teams Achievement Division (STAD) cooperative learning model in improving fifth-grade elementary school students' soccer dribbling skills and learning participation at SDN Tiwu Asem during the 2022/2023 academic year. This study contributes to the literature by providing empirical evidence regarding the implementation of cooperative learning strategies in elementary physical education, particularly in soccer learning activities involving basic motor skill development.

METHOD

Research Design

This study employed a Classroom Action Research (CAR) design to improve students' learning outcomes in soccer through the implementation of the Student Teams Achievement Division (STAD) cooperative learning model. Classroom Action Research was selected because it enables teachers and researchers to systematically identify classroom learning problems and implement practical interventions to improve teaching effectiveness and student performance (Khasinah, 2013; Nurdin, 2016). In addition, CAR is considered appropriate for physical education contexts because it allows

continuous reflection and improvement of instructional practices through cyclical learning activities (Mufidah, 2021; Suyanto, 2008).

The study was conducted in two cycles, and each cycle consisted of four stages: (1) planning, (2) action, (3) observation, and (4) reflection. The implementation of Cycle II was based on the evaluation and reflection results obtained from Cycle I.

Participants

The participants of this study were 32 fifth-grade students of SDN Tiwu Asem during the 2022/2023 academic year. The school is located in Praya District, Central Lombok Regency, West Nusa Tenggara, Indonesia. The participants consisted of male and female students who actively participated in physical education learning activities.

A total sampling technique was employed in this study because all students in Class V were directly involved as research participants. This sampling procedure is commonly applied in Classroom Action Research because the primary objective is to improve the learning process within a specific classroom setting rather than generalizing findings to a larger population.

Ethical Considerations

Prior to data collection, permission to conduct the study was obtained from the school principal and physical education teacher at SDN Tiwu Asem. Students participated voluntarily in the learning activities, and all research procedures were conducted in accordance with educational research ethics. The confidentiality of participants' identities and learning data was maintained throughout the study. The research activities were designed to support regular instructional processes without causing physical or psychological harm to students.

Instruments and Learning Materials

Several instruments and learning materials were used to collect data during the study:

1. Lesson Plans (RPP)

Lesson plans were designed based on the STAD cooperative learning model and adjusted to the elementary school physical education curriculum.

2. *Observation Sheets*

Observation sheets were used to assess students' participation, cooperation, discipline, and engagement during learning activities. Classroom observations were conducted collaboratively by the researcher and an assisting observer.

3. *Psychomotor Assessment Rubric*

A performance assessment rubric was developed to evaluate students' soccer dribbling skills. The rubric included several assessment indicators, namely: body posture,

- ball control,
- movement coordin,
- cognitive Test,
- dribbling speed,
- accuracy of movement,
- and body balance .

Each indicator was assessed using a 4-point scale ranging from 1 (poor) to 4 (excellent).

A written test consisting of multiple-choice and short-answer questions was used to evaluate students' understanding of basic soccer concepts and dribbling techniques.

4. *Affective Observation Sheet*

Students' attitudes during learning activities, including teamwork, responsibility, discipline, and sportsmanship, were assessed using an affective observation rubric.

5. *Soccer Learning Equipment*

The learning materials included soccer balls, cones, field markers, whistles, and practice areas used during dribbling activities.

Instrument Validation and Reliability

To ensure content validity, all research instruments were evaluated by two experts in physical education and sports pedagogy prior to implementation. The experts reviewed the suitability, clarity, and relevance of the assessment

indicators with the research objectives and elementary physical education curriculum.

Revisions were conducted based on expert suggestions to improve the quality and appropriateness of the instruments. Furthermore, inter-rater reliability was applied during observational assessments by involving one collaborator observer in addition to the researcher. Both assessors used the same assessment rubric to minimize subjective bias and improve scoring consistency during psychomotor and affective evaluations.

Research Procedures

The research was conducted in two action cycles as follows:

Cycle I

At the planning stage, the researcher prepared lesson plans, learning materials, observation sheets, and assessment instruments based on the STAD cooperative learning model. During the action stage, students participated in soccer learning activities focused on basic dribbling techniques through group-based cooperative learning.

Students were divided into several heterogeneous groups consisting of students with different skill levels. Each group worked collaboratively to complete learning tasks and practical activities. Observations were conducted during the learning process to evaluate student participation, cooperation, and learning outcomes.

At the reflection stage, several weaknesses were identified, including:

- limited student cooperation,
- ineffective group discussions,
- lack of understanding of STAD learning procedures,
- and insufficient practice time.

These findings became the basis for improving instructional strategies in Cycle II.

Cycle II

Based on the reflection results from Cycle I, several improvements were implemented in Cycle II, including:

- learning instructions,

- improved classroom management,
- more structured group discussions,
- increased teacher feedback,
- and additional demonstrations of dribbling techniques

Students showed greater participation, collaboration, and confidence during learning activities. The implementation of revised learning procedures resulted in improvements in cognitive understanding, psychomotor performance, and affective behavior.

Data Analysis

The collected data were analyzed using descriptive statistical techniques. Students’ learning outcomes were calculated in the form of:

- mean scores,
- percentages,
- learning mastery levels,
- and improvement percentages between cycles.

Learning mastery was determined based on the Minimum Mastery Criterion (KKM) established by the school. Students were categorized as achieving mastery if they reached the predetermined minimum score.

The percentage of learning mastery was calculated using the following formula:

$$P = \frac{F}{N} \times 100\%$$

F

Where:

- P = percentage of learning mastery,
- F = number of students achieving mastery,
- N = total number of students.

The improvement in student learning outcomes from Cycle I to Cycle II was analyzed by comparing mastery percentages across cycles. Qualitative observational data were analyzed descriptively to support the interpretation of students’ participation, cooperation, and learning engagement during the implementation of the STAD cooperative learning model.

RESULTS

The implementation of the Teams gam-

es Tournament (TGT) cooperative learning model assisted by modified plastic balls demonstrated significant improvements in students’ volleyball underhand passing skills and participation during physical education learning activities. Improvements were observed in cognitive understanding, psychomotor performance, and affective engagement across two action cycles.

Students’ Learning Mastery

Table 1 presents the comparison of students’ learning mastery between Cycle I and Cycle II.

Table 1. Students’ Learning Mastery

Cycle	Students Achieving Mastery	Students Not Achieving Mastery	Mastery Percentage
Cycle I	22	10	68.77%
Cycle II	29	3	90.62%

The results indicate that learning mastery increased from 68.77% in Cycle I to 90.62% in Cycle II, with an overall improvement of 21.85%.

Descriptive Statistics of Learning Outcomes

Table 2 shows the descriptive statistics of students’ learning outcomes.

Table 2. Descriptive Statistics

Indicator	Cycle I	Cycle II
Mean Score	72.31	84.56
Highest Score	88	96
Lowest Score	60	72
Standard Deviation	8.42	6.15

The findings showed an increase in the mean score from 72.31 to 84.56. The decrease in standard deviation indicated more consistent student performance in Cycle II.

Observation Findings

Classroom observations revealed that students became more active, cooperative, and confident during learning activities in Cycle II. In Cycle I, several students still had difficulties understanding the STAD procedures and collab-

orating effectively within groups. After improvements in instructional strategies, students demonstrated better teamwork, participation, and engagement during soccer practice activities.

Qualitative observations also indicated:

- increased student collaboration,
- higher learning motivation,
- improved confidence during dribbling practice,
- and better interaction between students and teachers.

Overall, the findings demonstrate that the STAD cooperative learning model effectively improved students' soccer dribbling skills and participation in physical education learning activities.

DISCUSSION

The findings of this study demonstrate that the implementation of the Student Teams Achievement Division (STAD) cooperative learning model effectively improved elementary school students' soccer dribbling skills and learning participation. The improvement in learning mastery from 68.77% in Cycle I to 90.62% in Cycle II indicates that cooperative learning strategies can positively influence students' cognitive, affective, and psychomotor development in physical education contexts.

These findings are consistent with previous studies reporting that cooperative learning enhances students' motivation, engagement, and academic achievement during classroom instruction. Irawati and Hindaryatiningsih (2021) found that the STAD model improved students' learning outcomes through collaborative interaction and group responsibility. Similarly, Laa et al. (2017) emphasized that cooperative learning encourages active participation and increases students' interest in learning activities. In physical education settings, cooperative learning has also been recognized as an effective pedagogical strategy for improving teamwork, communication, and movement performance during sports activities.

The effectiveness of the STAD model in this study can be explained through the perspective of social constructivist learning theory. According to social constructivism, learning occurs through social interaction, collaboration, and shared experiences among learners. During the implementation of the STAD model, students worked collaboratively in heterogeneous groups where higher-skilled students assisted peers with lower skill levels. This interaction created opportunities for peer-assisted learning, feedback exchange, and collective problem-solving during soccer practice activities. As a result, students became more confident and actively engaged in the learning process.

From the perspective of motor learning theory, repeated practice and feedback are essential for improving movement skills and coordination. The STAD cooperative learning model provided students with more opportunities to practice dribbling techniques through group activities, demonstrations, and peer correction. Continuous interaction and repeated movement practice helped students improve ball control, body coordination, balance, and movement accuracy during soccer learning activities. These findings support the view that active and collaborative learning environments can accelerate psychomotor skill acquisition in physical education.

The improvement in students' participation and confidence observed in Cycle II also reflects the importance of collaborative cognition in learning. Through group discussions and shared responsibilities, students were encouraged to exchange ideas, observe peer performance, and learn from one another. This collaborative process not only improved technical soccer skills but also developed students' communication skills, discipline, and social responsibility. The classroom atmosphere became more interactive and student-centered compared to conventional teacher-dominated instruction.

Despite the positive findings, several challenges were identified during the implementation of Cycle I. Some students initially experienced difficulties adapting to cooperative

learning procedures and effective group communication. Lower-skilled students also tended to depend on more dominant peers during learning activities. However, these challenges gradually decreased after the teacher provided clearer instructions, additional demonstrations, and more structured group management in Cycle II. This finding indicates that the successful implementation of cooperative learning requires proper classroom organization and continuous teacher facilitation.

Overall, this study confirms that the STAD cooperative learning model is an effective instructional approach for improving elementary school students' soccer learning outcomes. The integration of collaborative learning, peer-assisted interaction, and active motor practice contributed significantly to students' cognitive understanding, psychomotor performance, and learning motivation in physical education classes.

CONCLUSION

This study demonstrated that the STAD cooperative learning model effectively improved elementary school students' soccer dribbling skills and learning participation, with mastery increasing from 68.77% in Cycle I to 90.62% in Cycle II. Beyond technical skill development, the model positively enhanced students' motivation, teamwork, and confidence. These findings affirm cooperative learning as an effective pedagogical approach in elementary physical education, and the STAD model is recommended for teachers seeking to improve both motor skill development and collaborative learning experiences.

REFERENCE

Handoko, A. H. (2018). Analisis kemampuan teknik dasar pemain sepak bola ssb deli serdang united kabupaten deli serdang. *Jorpres (Jurnal Olahraga Prestasi)*, 14(1), 64-80.

Harahap, M. (2016). Esensi peserta didik dalam perspektif pendidikan Islam. *Jurnal Pen-*

didikan Agama Islam Al-Thariqah, 1(2), 140-155.

Hasbi, H., & Sukoco, P. (2014). Pengembangan model pembelajaran motorik dengan modifikasi permainan tradisional untuk sekolah dasar kelas atas. *Jurnal Keolahragaan*, 2 (1), 46-58.

Hasibuan, L., Us, K. A., & Nazirwan, N. (2021). Pendidikan dan Perubahan Kebudayaan Transmisi Budaya dan Perkembangan Institusi Pendidikan. *Jurnal Literasiologi*, 5(2).

Indrayana, B. (2017). Peranan kepelatihan olahraga sebagai pendidik, pelatih dan pembina olahraga di sekolah. *Jorpres (Jurnal Olahraga Prestasi)*, 13(1), 34-42.

Irawati, A., & Hindaryatiningsih, N. (2021). Penerapan model pembelajaran kooperatif tipe STAD untuk meningkatkan hasil belajar siswa pada mata pelajaran akuntansi kelas X. *Accounting: Jurnal Pendidikan Akuntansi*, 1(2), 41-50.

Khasinah, S. (2013). Classroom action research. *PIONIR: Jurnal Pendidikan*, 4(1).

Kuswoyo, D. D., & Fadlih, A. M. (2021). Pengembangan permainan sepakbola modifikasi dalam pembelajaran PJOK siswa SD. *Musamus Journal of Physical Education and Sport (MJPES)*, 3(02), 230-236.

Laa, N., Winata, H., & Meilani, R. I. (2017). Pengaruh model pembelajaran kooperatif tipe student teams achievement division terhadap minat belajar siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 2(2), 139-148.

Machali, I. (2022). Bagaimana melakukan penelitian tindakan kelas bagi guru. *Ijar*, 1 (2), 2022-12.

Mahardika, I. M. S. (2018, November). Perencanaan dan inovasi pembelajaran pendidikan jasmani olahraga dan kesehatan (PJOK). In *Prosiding Seminar Nasional IPTEK Olahraga (SENALOG)* (Vol. 1, No. 1, pp. 1-9).

Mufidah, L. (2021). Urgensi penelitian tindakan

- kelas dalam memperbaiki praksis pembelajaran. *At-tajdid: Jurnal Pendidikan dan Pemikiran Islam*, 4(02), 168.
- Mufidah, L. (2021). Urgensi penelitian tindakan kelas dalam memperbaiki praksis pembelajaran. *At-tajdid: Jurnal Pendidikan dan Pemikiran Islam*, 4(02), 168.
- Nasution, J. I. (2021). Penerapan model cooperative learning tipe teams games tournament untuk meningkatkan hasil belajar PJOK pada materi permainan sepak bola di kelas V SDN 112227 Rasau Labuhanbatu Selatan (Doctoral dissertation, IAIN Padangsidempuan).
- Nurdin, S. (2016). Guru profesional dan penelitian tindakan kelas. *Jurnal Educativ: Journal of Educational Studies*, 1(1), 1-12.
- Rahayu, E. T. (2016). Strategi Pembelajaran Pendidikan Jasmani: implementasi pada pembelajaran pendidikan jasmani, olahraga, dan kesehatan. *Alfabeta*
- Situmorang, Y. Y., Septio, M. B., Miduk, P. Y., Tarigan, R. L., Rumahorbo, B. A., Wardana, D. A., & Simanjuntak, A. P. (2022). Hubungan dan Manfaat Pendidikan Jasmani untuk Anak dan Remaja. *Jurnal Ilmu Pendidikan Dasar Indonesia*, 1(4), 205-212.
- Supriatno, E. S. (2022). Pembelajaran lari sprint menggunakan pendekatan permainan lari bola keranjang pada siswa kelas III MI Ma'arif 01 Rejamulya Kedungreja Kabupaten Cilacap. *Jurnal Insan Cendekia*, 3 (1), 42-48.
- Suyanto, S. (2008). Meningkatkan Profesionalisme Guru dengan PTK. *COPE: Caraka Olah Pikir Edukatif*, 10(01).
- Widayati, S. N. (2018). Peningkatan Hasil Belajar Siswa Kelas II SDN 1 Gribig Untuk Tema 2 Subtema 1: Bermain Di Lingkungan Rumah Dengan Menggunakan Metode Example Non Example. *Journal Prakarsa Paedagogia*, 1(2).