

THE EFFECTIVENESS OF THE JOYFUL LEARNING-BASED TARGET METHOD IN IMPROVING BADMINTON SERVICE RESULTS

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ABSTRACT

Badminton service skill is a fundamental technique that requires accuracy, consistency, and active student engagement during the learning process. However, badminton learning in schools is still frequently dominated by repetitive instruction-based exercises that reduce students' motivation and participation. This study aimed to analyze the effectiveness of the joyful learning-based target method in improving students' badminton short service skills. This study employed a quantitative pre-experimental one-group post-test design. The population consisted of 105 tenth-grade students, with 70 students selected through simple random sampling. The intervention was conducted in 12 meetings using a target-based badminton service training integrated with joyful learning principles. The research instrument was a short service accuracy test consisting of 12 attempts with a scoring range of 1-5 for each trial. Instrument validity was confirmed through expert judgment, while reliability testing showed a high Intraclass Correlation Coefficient (ICC = 0.87). The data were analyzed using descriptive statistics and Cohen's d effect size analysis. The findings showed that 20% of students achieved the excellent category, 37% good, 26% fair, 13% poor, and 4% very poor. The mean score reached 41.8, which was classified as good. The intervention showed positive improvement in students' service accuracy and consistency. In addition, the effect size analysis indicated effectiveness at a moderate-to-high level (Cohen's d = 0.82). The joyful learning-based target method indicated effectiveness in improving badminton service skills and creating a more engaging learning environment in physical education.

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INTRODUCTION

Transformation 21st century education demands development human resources are not only technically competent, but also adaptive, collaborative, and reflective. In the context of said , education physical own contribution strategic Because play a role in

develop dimensions cognitive , affective , and psychomotor in an integrated manner (Mustafa, 2022) . Physical Education teachers have role important in increase ability motor participant educate through strategy adaptive and innovative learning (Nurdin et al., 2024) . In learning badminton, mastery technique service, become skills important basics Because determine control beginning games and strategies tactical. However, learning badminton at school Still Lots use approach conventional based on repetitive drills that tend to lower engagement and motivation students. Conditions This cause student not enough active and difficulty maintain consistency technique service.

The development of pedagogical paradigms has driven a shift from a teacher-centered approach to *student-centered learning* . Student-centered learning models have been shown to increase intrinsic motivation, active participation, and the quality of motor skill mastery compared to traditional instructional methods (Shen & Shao, 2022) . However, badminton learning practices in schools are still dominated by repetitive, direct-instruction-based training patterns, which tend to limit students' exploration and emotional engagement. This potential hinder optimization results Study technique basic, including skills service.

Service is fundamental techniques in badminton decider control beginning games and strategies tactical. Mastery accurate and consistent service need exercise precision - oriented structured movement. Research previously show that specific targeting and baiting come back significantly directed increase accuracy as well as consistency performance technique in learning skills motor (Han et al., 2022b) . The target method, which places focus on achievement point certain as indicator success, have great potential for increase quality service student through mechanism bait come back direct.

Although thus, success learning technique sport No only determined by design practice, but also by climate supportive learning motivation and engagement students. Recent studies show that environment supportive and fun learning contribute positive to trust self as well as perseverance student in control skills movement (Aslam et al., 2025) . Approach *joyful learning*, which emphasizes atmosphere interactive, collaborative, and minimal pressure, relevant to increase quality experience Study in education physical. Review systematic in education physical underline importance integration between development skills motor skills and involvement affective as a determinant of quality learning (Mat & Jamaludin, 2024) . Learning model based game capable increase skills physique students more effective compared to approach conventional (Efendi et al., 2024) .

In other words, learning effective techniques need designed No only for increase aspect psychomotor, but also for grow motivation intrinsic as well as experience Study positive.

Although various study has study effectiveness model learning student centered and exercise target -based separately, studies that integrate target method with approach *joyful learning* in context learning service badminton at school Still limited. Most of the research focused on improving performance technique or on the aspect motivational independently, without test interaction both of them in One design comprehensive learning. The gap study the show the need development and testing model capable learning integrate dimensions technique and affective simultaneously. Integration target method with approach *joyful learning* estimated can produce synergy between improvements accuracy service and improvement motivation Study students. With Thus, innovation This No only results - oriented performance, but also on quality experience continuous learning.

Based on this background, this study aims to analyze the effectiveness of the *joyful target-based method. learning* on students' badminton serve results. *The novelty* of this research lies in the systematic integration of precision-based training (target goals) with a *joyful* experience-based pedagogical approach. *learning*) in a structured learning design in a secondary school context. This integrative approach is expected to provide theoretical contributions to the development of an empirically evidence-based physical education learning model, while also providing practical implications for teachers in designing more effective and participatory badminton learning.

RESEARCH METHODS

Research Design

This study used a quantitative approach with a *pre-experimental one-group posttest design to evaluate students' badminton service performance after a learning intervention using the joyful learning* -based target method . This design was chosen to identify service technique performance achievements after the treatment was given systematically in the context of school learning.

Population and Sample

Population study consisting of 105 students class x on wrong One school upper middle school. Research sample a total of 70 students (aged 15–16 years) were selected use technique *simple random sampling* to minimize bias selection and ensuring population representativeness. All participants in condition healthy, no experience injury, and has

follow learning badminton base previously. Research has, get agreement from party school as well as agreement participation (*informed consent*) from student.

Procedure Intervention

Intervention implemented for 12 meetings (2 times per week) with 90 minutes duration every session. Learning designed use target method that requires student do service short to a specific target area that has been determined in the field field. Every activity packed through approach joyful learning with principle learning collaborative, giving challenge step by step, gamebased scores, as well as bait come back positive from Teacher.

The learning structure includes:

1. Contextual warm-up (10–15 minutes)
2. Target-based core workout (60 minutes) with varying difficulty levels
3. Reflection and reinforcement motivational (10–15 minutes)

Approach This designed for integrate aspect precision techniques and involvement affective students simultaneously.

Instrument Study

Instruments used is a test of accuracy service short modified badminton from standard measurement skills base game racket. Every student do 12 times test service to the target area that has been shared become multiple score zones. Rating scale use range 1–5 on each test based on level accuracy fall shuttlecock towards the target. THE maximum total score that can be obtained is 60 points. Content validity instrument confirmed through *expert judgment* by two lecturer education physical and one coach badminton certified national. Test reliability done through test *inter-rater reliability* with coefficient *Intraclass Correlation Coefficient* (ICC), which shows category reliability high (ICC > 0.80).

Data analysis

Data analyzed use statistics descriptive in the form of average, standard deviation, percentage, and distribution category achievements. In addition, it was carried out analysis inferential using Cohen's d effect size test for know magnitude influence intervention to skills service students. Analysis results show mark Cohen's d is 0.82 which is included

category effect big , so that intervention assessed own strong influence to improvement skills service badminton student .

RESULTS AND DISCUSSION

Results

A descriptive analysis of the short serve performance of 70 students shows a distribution of achievement concentrated in the medium to high categories. A total of 26 students (37%) were in the category good and 14 students (20%) in the category very good, while 18 students (26%) are in the category enough. As for 9 students (13%) including category less and 3 students (4%) are in the category very less. This distribution indicates that more from half participants (57%) achieved level performance in the category Good until very Good after follow intervention learning.

Average score value services received is 41.8 (from score maximum 60), which is classified as is at in category good. Distribution score show trend relative distribution concentrated in the range mark upper middle class, with variation performance that is still controlled. Findings This show that most of the student capable reach level accuracy consistent service in implementation 12 times test.

If reviewed from proportion achievement, dominance category good and very good (57%) compared to category less and very less (17%) showed difference distribution sufficient performance striking. The ratio indicates that most of the students capable adapt target -based task demands effectively. This is streng then assumptions that giving target specific during exercise give clear stimulus to regulations movement and control precision.

In addition, the low percentage students in the category very less (4%) indicates that interventions implemented relatively inclusive and capable accommodate variation ability beginning students. With approach joyful applied learning during process learning, students No only focused on achievement score, but also on experience supportive learning courage try and repeat technique independently. Condition This potential Streng then consistency performance technique through improvement involvement active.

Overall, the findings study Show that implementation target method based joyful learning contribute positive to improvement accuracy and consistency service short badminton. Dominance achievements in the category good and very Good as well as average value in the classification Good indicates effectiveness design integrated learning aspect precision techniques and involvement affective students. These results give base

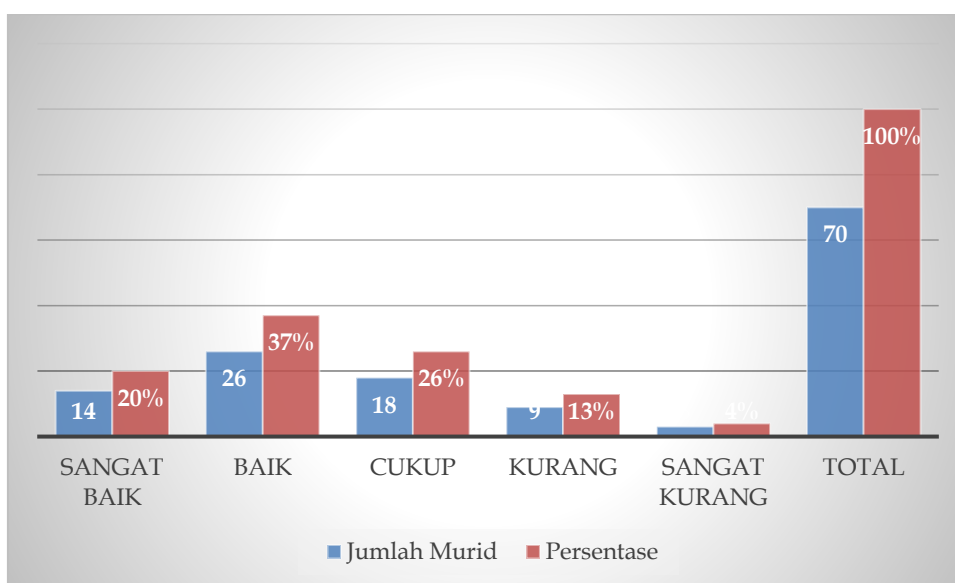
empirical that approach integrative the worthy considered as strategy learning skills base badminton at the level school medium.

For provide a clearer picture systematic about achievements skills service short after intervention learning, test results are analysed based on category specified performance through range score certain. Classification This aim for map level mastery technique service students more structured, so that distribution ability can identified quantitatively and proportionally. Grouping into five categories start from very not enough until very Good allows more interpretation comprehensive to effectiveness target method applied through approach *joyful learning*.

Frequency and percentage distribution for each category show variation level relative skills concentrated on the category medium until high. Overall, the data indicates domination achievements in the category good and very Good compared to category others. Details complete about range score, number students at each Categories, as well as percentage distribution presented in the following table.

Table 1. Distribution Test Result Categories Students' Badminton Service Skills

Category	Score Chain	Number of Students	Percentage
Very good	50-60	14	20%
Good	40-49	26	37%
Enough	30-39	18	26%
Not enough	20-29	9	13%
Very less	<20	3	4%
Total		70	100%



Graph 1 Results of Students' Badminton Service Skills Test

Discussion

Research result show that distribution achievements skills service short dominated by category good (37%) and very good (20%). Findings This indicates that majority students has reach level adequate accuracy and control after follow learning with target method based joyful learning approach proven target based effective increase precision movement Because give visual stimulus and goals measurable specifics (Taupik et al., 2025) . When students own target concrete, focused attention become more directed so that quality execution technique increasing consistently. This is in line with findings (Roberts & Lawrence, 2019) which confirms that focus attention external towards the target capable increase efficiency coordination and accuracy movement compared to mechanics - oriented instructions body solely . In addition , the study by (Herbaut et al., 2023) show that use of internal visual targets exercise skills racket significantly repair consistency blow through strengthening bait come back intrinsic . Support empirical others were also put forward by (Han et al., 2022a) which states that design learning based objective specific and bait come back direct contribute to improvement performance psychomotor student in education physical . The average value is 41.8 which is in the category Good the more strengthen indication that interventions provided own influence positive to results Study motoric. Theoretically , the increase skills technique in net games like badminton very influenced by exercises that are of a nature specific , repetitive , and contextual (Moisescu & Codreanu, 2022) . Target method allows students for internalize, principle direction, strength, and angle simultaneous blows, so that accuracy service short develop more optimal compared to exercise without a clear target. Findings this is also reinforced by (Talib et al., 2019) which emphasizes that approach task and game based capable enhance skills transfer technique in situation real match . With Thus, the combination exercise specific, focused external, as well as atmosphere fun learning become foundation strong theoretical in explain improvement results service short on research This.

Domination category good and very both reaching 57 % shows that learning No only technically effective, but also supports consistency performance. Consistency in skills service close relation with ability control motor fine motor skills and hand-eye coordination. Recent studies in education physical state that design learning task -based with objective specific increase stability performance through strengthening bait come back intrinsic and extrinsic (Rizqiya et al., 2025) . Findings the in harmony with study by (Asadi et al., 2019) which confirms that clear and goal-oriented task structure objective contribute to improvement regulations self as well as consistency movement in learning skills sport .

With the presence of visual targets, students get bait come back direct about success blow they. Mechanism This speed up process calibration movement and adjustment technique from One trial to trial next. Research by (Kurniawan et al., 2025) show that giving *augmented systematic feedback* capable increase accuracy at a time guard stability performance in motor tasks repeated . In addition , the analysis experimental latest done by (Casebolt & Zhang, 2020) find that combination of specific targets and evaluation performance based criteria quantitatively significant increase consistency results learn from the game racket at school .

Approach *joyful integrated learning* in method this also plays a role significant to results obtained. Motivation intrinsic, such as pleasure, desire achievement and satisfaction personal moment practice, become dominant factors that drive consistency participation and improvement skills technique. Athlete with level motivation intrinsic tall tend show involvement more practice intense, focused more attention good, and response adaptive to bait come back coach. Condition This impact directly on the increase accuracy and stability performance technique basic , including service short , because process exercise done with awareness , persistence , and continued enthusiasm (Pranata et al., 2022) . Environment fun learning proven increase motivation intrinsic, involvement active, and persistence in exercise and learning students. Methods such as gamification and activities physique can integrated For create more atmosphere interactive and engaging (Hermahayu & Mashitoh, 2022) . Support empirical addition put forward by (Pollok et al., 2022) which states that model learning student centered with atmosphere supportive capable strengthen involvement affective at a time increase quality performance psychomotor . When students feel comfortable and enjoy process learning, level anxiety performance decrease so that coordination movement become more optimal. This is Explain Why proportion category less and very not enough relatively small (17%), because environment positive learning play a role as factor protective to obstacle performance motoric.

Pedagogically, the combination of approaches target and atmosphere based positive learning create condition aligned learning with theory self-determination. This theory emphasize importance autonomy , competence , and connectedness social in increase quality learning (Zakiati et al., 2024) .Target method give students measurable challenges (competence), while joyful learning support aspect connectedness and comfort social in class. Relative distribution of values evenly distributed across categories sufficient (26%) shows that part students Still need strengthening technique basic. However, no found dominance in the category low signify that intervention has capable reach almost all over

spectrum ability. Research latest in context learning skills sport school state that approach based game - *based effective learning* increase skills technique at a time understanding tactical (Suherman et al., 2023) . This is relevant to the *joyful character Learning* that integrates game elements into technical training. In addition, the effectiveness of the target method can be explained from a *motor perspective. learning* that emphasizes the importance of exercise variability and external target representation. External focus on the target has been shown to increase movement efficiency compared to internal focus on body movements (Janna & Kurnia, 2025) . Thus, when students are directed to focus on the target point of the service, motor coordination becomes more automatic and precision increases. From a learning evaluation perspective, this achievement also reflects the teacher's success in designing adaptive and structured instruction. Physical education learning designs that combine specific targets, immediate feedback, and a supportive atmosphere significantly improve psychomotor learning outcomes (Kyriakides et al., 2020) . This means that success No only lies in the method, but also in the implementation systematic pedagogical.

Proportion small in category very less (4%) can understood as representation individual variations in capacity coordinative, experience exercise previously, and readiness physical and psychological students. Literature latest confirm that performance skills in sport racket influenced by interaction complex between factors technical , fitness specific and characteristic individual (Smit et al., 2022) . In addition , longitudinal research in education physical show that difference background behind experience play significantly influence speed adaptation towards motor tasks new (Lee et al., 2022) .

From the perspective control motor skills, abilities hand-eye coordination and regulation of movement timing play a role crucial in accuracy service short. Experimental study by (Oagaz et al., 2022) explain that net game skills very sensitive to postural stability and precision corner strokes , which develop progressively through exercise structured . More continued , (Moon et al., 2015) emphasize that response individual to exercise target based can varies depending on capacity processing bait turning and maturity control motoric .

Increase trust self student can become strategy effective For repair results learning and skills motor in various activity sports. Important for educator For understand factors this is so that you can designing appropriate interventions , improving motivation and confidence self student in learning sport (Mulyani et al., 2025) . Effective interventions must consider factors like anxiety and confidence self student for increase results Study them as a whole. Important For develop strategies that do not only focus on improvement skills

academic , but also on strengthening belief self and reduction anxiety student (Yurtsever, 2024) Components fitness specific branch sport contribute significant to accuracy blow in context learning school . With Thus , the results study This indicates importance consider condition physique as variables supporters in analysis performance (Bazylevych et al., 2023) .

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on results research, application target method based on proven joyful learning effective in increase skills service short badminton students. Descriptive results show that most of the students is in the category good and very Good with percentage by 57%, and the average value is 41.8 which is included category Good.

Analysis results statistics inferential using Cohen's d effect size shows mark of 0.82 which includes category effect big. Findings This indicates that intervention learning give strong influence to improvement accuracy and consistency service short students . In addition , the value reliability instrument through the Intraclass Correlation Coefficient (ICC) of 0.87 shows that instrument study own level consistency high rating .

In a way overall , integration target method with joyful learning approach does not only increase aspect psychomotor students , but also supports involvement active , motivation learning , and atmosphere more learning positive in education physical . With Thus , the method This worthy used as alternative learning effective and participatory badminton at the level school medium .

Suggestion

Education teachers physical recommended For implement target method based on joyful learning systematic in learning badminton , especially in the material service , with notice principle giving bait structured and sustainable feedback . It is necessary done modification level target difficulty as well intensity practice for learning more adaptive to difference ability individual approach differentiation This aim for minimize gap performance and ensure all over students get experience optimal learning.

For research advanced recommended use design experiment or quasi-experiment with group control as well as analysis statistics inferential for test effectiveness model in more detail powerful and generalizable. In addition, the integration variables psychological

like motivation intrinsic, self-efficacy, and anxiety performance can enrich understanding about mechanism improvement skills service in context learning education physical.

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