Indonesian Journal of Sport

Understanding Young Learners' Dribbling Performance: A Descriptive Exploration of Fundamental Football Skills in Elementary Education

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Received: Augst 10, 2025 | Revised Sept 14, 2025 | Accepted: Okt 08, 2025

ABSTRACT

Background: Dribbling in football demands control, rhythm, and coordination between movement and balance. For children in primary education, this skill forms the basis for developing confidence and enjoyment in physical activity.

Aims: This study explored the dribbling ability of elementary school students and described how their performance reflects fundamental football skills. The purpose was to provide a clear overview of students' ability levels and to support teachers in planning more effective football learning programs.

Methods: The research used a descriptive quantitative approach involving 21 students from UPT SPF SDN Monginsidi III. Each participant completed a dribbling test arranged in a cone circuit, and the time required to finish the course was recorded. All results were processed using percentage analysis to group students into categories of excellent, good, sufficient, poor, and very poor performance.

Results: The analysis indicated that 3 students (14.28%) achieved good results, 12 students (57.14%) were at a sufficient level, 4 students (19.06%) fell into the poor category, and 2 students (9.52%) were categorized as very poor. The majority of learners performed at a sufficient level, suggesting that their technique and consistency still need improvement.

Conclusion: Most students demonstrated a moderate level of dribbling ability. To raise performance quality, teachers and coaches are advised to strengthen discipline during training, focus on technique correction, and include more repetition-based practice. Consistent and guided training is expected to improve both motor coordination and mastery of basic football movements.

Keyword: Dribbling Ability; Elementary Education; Football Skills; Physical Performance

INTRODUCTION

The need to improve the quality of physical education at the elementary level has become increasingly urgent as schools seek to nurture healthier and more skillful generations. Football, as one of the most accessible and engaging sports for children, provides a strong foundation for building physical fitness and social discipline. However, in many schools, students' technical ability in football does not grow proportionally with their enthusiasm for playing. (C. Zhang, 2024) Among the core techniques, dribbling often becomes the most challenging because it requires body coordination, balance, and precision. This imbalance between enthusiasm and mastery creates a gap that educators must address through structured and evidence-based learning. Assessing students' dribbling skills therefore becomes not only a technical necessity but also a pedagogical priority. Without proper assessment, teachers may fail to identify students' strengths and weaknesses. (Jääskä & Aaltonen, 2022; Owan et al., 2023) As a result, learning activities may become repetitive and fail to produce measurable improvement.

Football is more than a sport; it is a tool for shaping children's discipline, concentration, and teamwork. Dribbling, as a key element of football, integrates these aspects through physical and cognitive engagement. (Klotzbier & Schott, 2024) When children learn to control the ball, they are indirectly learning to coordinate movement, maintain focus, and manage time. The process trains their patience and strengthens their body awareness, which later supports other motor skills. (Fikriyati et al., 2023) Elementary school students, being in their formative years, are highly responsive to structured physical exercises. Regular exposure to dribbling practice helps them develop the ability to move efficiently and confidently. When these exercises are combined with supportive teaching, students can transfer these skills beyond the sports field into everyday behavior. Thus, dribbling serves as both a physical and behavioral learning medium that shapes children's character and coordination.

At the early stage of education, physical activity plays a crucial role in enhancing children's growth and development. Through football, students can experience physical challenges that encourage the development of stamina, flexibility, and motor precision. (Sermaxhaj et al., n.d.) Dribbling provides a specific opportunity for them to train lower-body coordination while maintaining control over motion and direction. The repetition of such activities strengthens neuromuscular patterns that are essential for balance and agility. Without this foundation, students may find it difficult to perform more advanced movements in future learning. (Fan et al., 2025; Tang, 2022) Schools that consistently implement structured football sessions contribute significantly to improving these foundational abilities. Therefore, the integration of dribbling practice within physical education is vital for achieving both athletic and educational goals. It bridges physical training and academic growth through active learning.

Despite football's popularity, many students remain unable to demonstrate proper control and technique during play. (Diekhoff & Greve, 2025; Macy et al., 2021) In most cases, physical education focuses more on participation than on measurable skill improvement. Teachers often lack standardized tools to evaluate how well students perform fundamental movements such as dribbling. Consequently, progress is judged subjectively, and lessons tend to repeat the same routines without identifying technical deficiencies. This limitation reduces the potential of football to serve as an effective developmental medium in schools. Evaluating students' dribbling ability using standardized instruments provides a fair and objective picture of their actual competence. (Wibowo et al., 2024) The data gathered from such assessments can guide teachers to design better practice sessions. Thus, structured evaluation becomes a foundation for quality teaching and targeted learning in physical education.

Dribbling ability also influences students' self-confidence and motivation in sports participation. When learners recognize their improvement through measurable progress, they tend to engage more actively in training sessions. (Carroll et al., 2021; Hew et al., 2023) Conversely, when they fail to control the ball or complete drills successfully, they may lose interest and perceive the sport as difficult. By assessing students' dribbling levels, teachers can provide constructive feedback that restores confidence and encourages persistence. Positive reinforcement helps students build resilience, which is essential for both sports and daily learning. It also fosters emotional stability, teamwork, and appreciation of effort. (Malik, 2025; Saccardi & Masthoff, 2025) Through continuous evaluation and supportive coaching, students begin to associate practice with growth rather than pressure. This psychological aspect is an important complement to physical development in early education.

In the context of school learning, dribbling also reflects how the environment supports or limits student development. Schools with adequate facilities, structured schedules, and motivated teachers tend to achieve better outcomes in sports learning. (Kovacs et al., 2022; Thompson et al., 2022) On the other hand, schools with limited space or resources often struggle to maintain consistent practice routines. Teachers, therefore, play a central role in optimizing available tools and creating creative exercises suited to their students' needs. By designing flexible and enjoyable drills, teachers can maintain students' interest even in minimal settings. (Kundu et al., 2021; Niemi, 2021) The key lies in consistency, feedback, and encouragement. When students are guided through gradual difficulty levels, their skills improve naturally without losing motivation. Researching this process helps reveal the actual learning conditions and challenges faced by schools.

Understanding dribbling performance among young learners also contributes to identifying broader educational patterns. It provides valuable insight into how teaching strategies and environmental factors affect motor skill acquisition. (Simpson et al., 2021; Tassignon et al., 2021) Quantitative data describing students' ability levels can serve as a reference for teachers, policymakers, and curriculum designers. Such findings allow educational institutions to develop targeted interventions for improving school-based sports programs. (Angeli et al., 2022; Ansari & Rizvi, 2023) Moreover, they support the national vision of promoting healthy lifestyles through active participation in physical education. This approach ensures that learning is not only about playing but also about measurable growth and balanced development. The study of dribbling performance therefore serves as a model for integrating scientific evaluation into everyday teaching practice. It bridges the gap between theory, measurement, and real educational outcomes.

Finally, assessing the dribbling ability of elementary students is an essential step toward improving the overall quality of physical education. The results can be used to plan structured training that enhances students' control, coordination, and focus. (Castro-Alonso et al., 2021; Chen et al., 2022) By identifying areas of weakness, teachers can design tailored exercises that progressively develop each student's potential. This process transforms football practice from simple recreation into purposeful education. It demonstrates that physical education, when guided by data, can produce both technical skill and personal growth. Furthermore, it provides a framework for future studies to explore other fundamental skills such as passing and shooting. (Cao, 2024; Fernández et al., 2021) The significance of this research lies in its contribution to the continuous improvement of teaching and learning practices. Through a better understanding of dribbling ability, schools can cultivate young learners who are not only active but also skilled, disciplined, and confident.

Research on football education increasingly shows that skill development is rooted in coordination and movement control. Bednarczuk et al. (2025) revealed how balance supports technical execution, while Ke et al. (2025) proved that varied physical activities strengthen both body and cognition. Huang et al. (2025) emphasized the role of structured evaluation in identifying students' learning progress during training. The mental aspect also plays a key role—Yarayan et al. (2025) noted that motivation and focus sustain consistent dribbling performance. (Y. Zhang et al., 2025) introduced game-based assessment methods that help young players learn through real situations. Fang et al. (2025) and Alves (2025) explored the use of intelligent and predictive systems to analyze player movement, which can inspire more objective school-based evaluations. Beyond physical skills, Gamberini et al. (2025) highlighted how football nurtures teamwork and community awareness, and Pawlik et al. (2025) explained that personal skill stability influences group success. Gaviria Alzate et al. (2025) found that tactical awareness training improves children's control and decision-making. Altogether, these studies point out that dribbling ability is not only a motor skill but a reflection of balance, focus, and discipline—elements that must be cultivated through structured, student-centered practice in elementary education.

Although football has become one of the most popular activities in school physical education, the real progress of students' technical abilities often goes unnoticed. Teachers generally focus on encouraging participation and teamwork, but the specific measurement of core skills like dribbling is rarely conducted in a structured way. As a result, the actual level of skill mastery among students remains unclear, and feedback for improvement is often based on observation rather than data. Many studies on football performance tend to center on adult or elite players, leaving limited evidence on how younger students learn and develop their coordination. This gap means that elementary learners are frequently trained using generalized methods without consideration of their individual progress. Moreover, most existing evaluations rely only on performance impressions instead of standardized testing. The absence of this form of assessment has created a need for descriptive studies that can present a clear, evidence-based picture of students' dribbling ability in the school environment.

This study was designed to respond to the lack of formal evaluation methods for football skill development at the elementary level. By focusing on dribbling, which requires synchronization of movement, timing, and control, this research offers a window into how young learners acquire fundamental coordination skills. Understanding these skill levels is crucial for teachers to design suitable training programs that fit the developmental stages of children. It also helps schools identify strengths and weaknesses in their teaching practices, especially in balancing physical fitness with

technical precision. Beyond measurement, this study carries educational value—it highlights how proper feedback can boost student confidence, motivation, and discipline in sports. Through systematic testing and analysis, the study seeks to show that even simple evaluations can improve the quality of physical education and make learning more purposeful. In essence, it brings structure and clarity to a part of sports learning that is often left to chance.

The purpose of this study is to describe the level of dribbling ability among students at UPT SPF SDN Monginsidi III and to classify their performance according to measurable criteria. The research aims to determine whether students have developed sufficient control, balance, and coordination during football practice. Another goal is to provide practical insight for teachers to refine their training approach based on actual performance outcomes. Through this assessment, the study expects to reveal how regular, guided practice influences improvement in skill execution. The results are also anticipated to serve as a reference for future physical education programs, especially in developing techniques that promote both physical competence and learning enjoyment. The working hypothesis suggests that most students are positioned in the "sufficient" category, reflecting a moderate mastery that still requires structured training and feedback. Consistent practice combined with clear guidance is expected to elevate their dribbling performance and overall confidence in playing football.

METHOD

Research Design

This research used a descriptive quantitative approach to describe the real condition of students' dribbling ability during football learning. The method was chosen because it allows the researcher to observe and record the performance of participants in a natural learning environment without manipulation. The purpose of this design was to present a clear and factual picture of students' skill levels in football practice. The study focused on describing what was observed rather than testing a treatment or comparing groups. This approach made it possible to understand how students performed in relation to their physical coordination and motor control. The overall framework provided valuable insight for teachers to improve learning based on actual performance.

Participant

The participants in this study were 21 elementary school students from UPT SPF SDN Monginsidi III, consisting of both male and female students. All participants were actively involved in physical education classes and had previous experience with football activities. The researcher used total sampling so that all students in the class became part of the study. Data collection took place during school hours under the supervision of teachers to ensure fairness and safety. Each student was given an explanation of the test procedures and allowed to practice briefly before the test began. The selection of participants was based on accessibility, cooperation, and their active participation in football learning at school. This group represented the natural characteristics of young learners who are still developing their coordination and ball control skills.

Instrument

The main instrument used in this study was a dribbling skill test designed to measure coordination, control, and movement speed while handling the ball. The test required students to dribble through a zigzag path made of seven cones placed at equal distances. Each participant started behind the line

and dribbled the ball as fast and accurately as possible until crossing the finish line. The total time was recorded with a stopwatch to the nearest tenth of a second. Three footballs were prepared to ensure smooth rotation between participants, and a result sheet was used to record the data. The test was carried out individually with teacher supervision to maintain objectivity. The instrument provided a simple but reliable way to assess basic football skills that combine control, agility, and coordination.

Data Analysis

All collected data were analyzed using descriptive statistics to summarize the performance results. The analysis included the calculation of mean, standard deviation, minimum, and maximum scores. The students' results were then classified into five performance levels: excellent, good, sufficient, poor, and very poor. The classification helped to identify how far each student had mastered dribbling as part of their football learning. The data were also presented in percentage and frequency form to show overall trends. The analysis process provided both numerical and educational interpretations, linking performance outcomes with students' learning progress and level of motor development. This made it easier to understand which areas needed improvement and how teaching strategies could be adjusted.

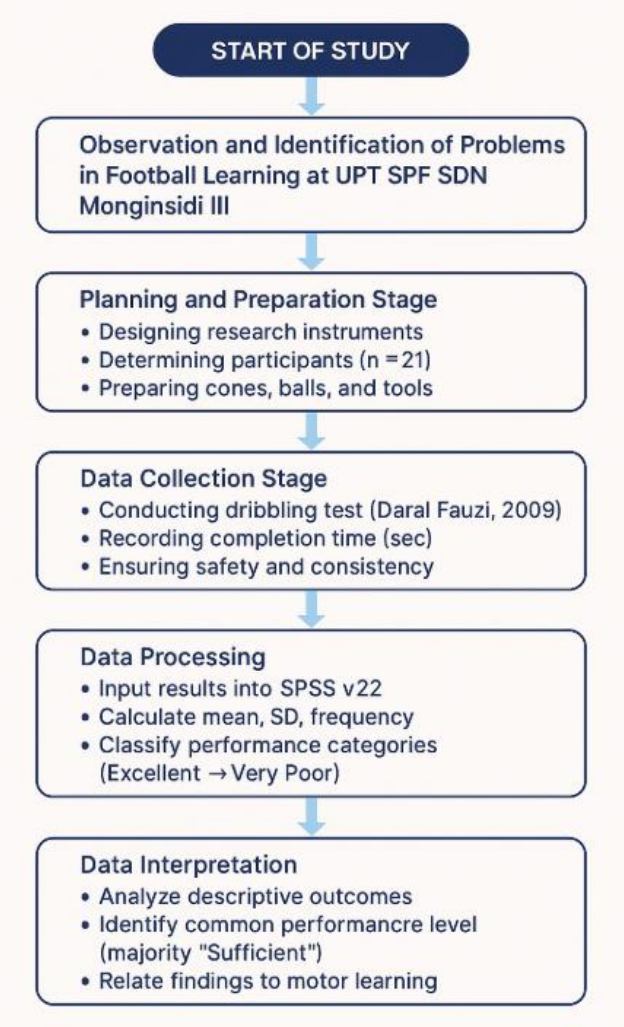

Figure 1. Research Procedure Flowchart

RESULTS AND DISCUSSION

Result

The results of this study describe the level of students' ability in performing the dribbling test as part of football learning at UPT SPF SDN Monginsidi III. A total of 21 students participated in the activity, where each was asked to complete a zigzag dribbling path in the shortest time possible. Every movement was timed individually to measure accuracy, control, and speed. The data were then grouped into five performance categories to provide a clear picture of students' overall ability.

Table 1. Distribution of Dribbling Ability Levels

Category	Frequency	Percentage (%)
Excellent	0	0.00

Good	3	14.28
Sufficient	12	57.14
Poor	4	19.06
Very Poor	2	9.52
Total	**21**	**100**

The results show that most students achieved the "sufficient" category, representing more than half of the total participants. Only a few students reached the "good" category, while several were classified as "poor" and "very poor." None of the students were able to reach the "excellent" category. This outcome reflects that students generally have basic control over the ball but have not yet developed full precision and speed. It also indicates that practice and technical instruction in football learning are still at an early stage of effectiveness.

To give a clearer picture of the data distribution, the results are visualized in the following bar chart.

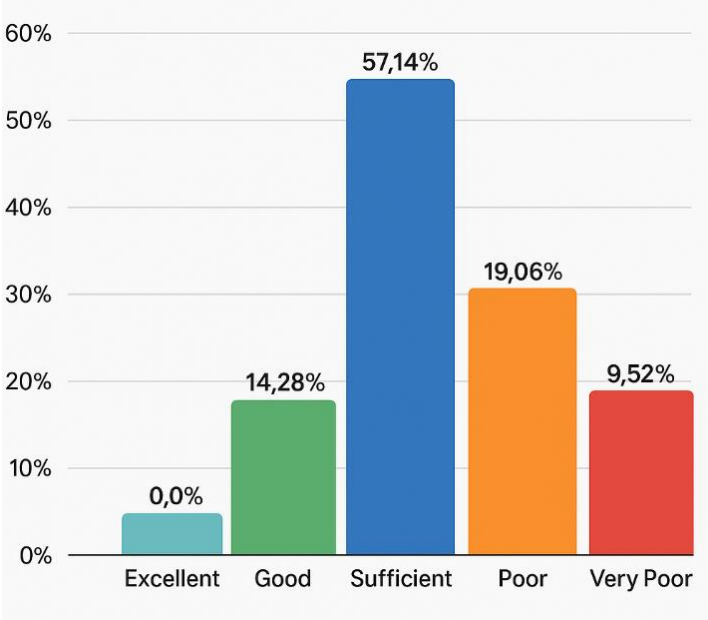

Figure 2. Dribbling Ability Level Distribution

The bar chart above illustrates that most students performed within the sufficient category, followed by smaller groups in the poor and good categories. The results show that while the majority have basic control of the ball, only a few are able to dribble smoothly with consistent speed and balance.

To provide a clearer understanding of how the test was conducted, the layout of the dribbling course is shown in the next figure.

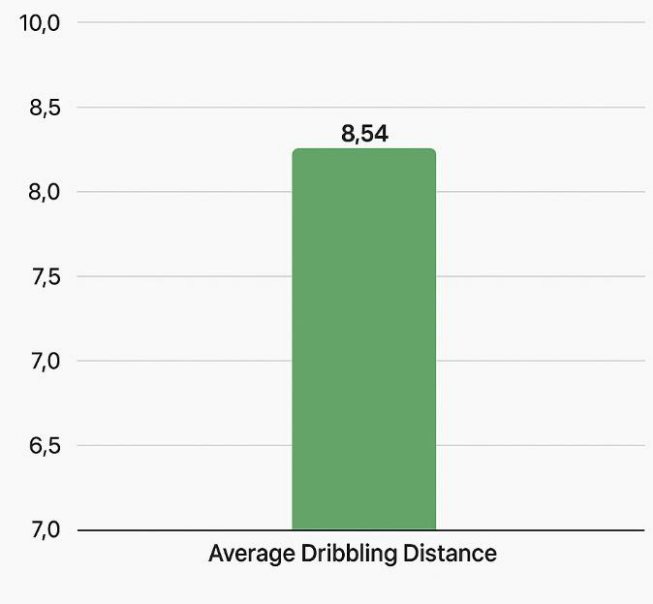

Figure 3. Dribbling Test Layout Used in the Study

The dribbling test used in this study consisted of a starting line and a finishing line connected by seven cones placed in a zigzag formation. Each student began from the starting point and dribbled the ball through each cone as quickly and accurately as possible. A stopwatch was used to record the completion time, and all participants performed the same sequence under identical conditions. This setup allowed the researcher to assess both technical accuracy and control consistency among students. The simple design of the test made it suitable for elementary-level learners, ensuring fairness and ease of understanding.

Overall, the results illustrate that the majority of students demonstrated moderate skill in dribbling. While they were capable of completing the test independently, many still lacked consistency and coordination in changing directions. These findings show that structured and continuous training will be essential for improving students' ball-handling ability and overall football performance.

Discussion

The results of this research revealed that most students at UPT SPF SDN Monginsidi III were categorized at a sufficient level in dribbling ability. This outcome shows that while students could control the ball properly, they still faced challenges in maintaining direction, speed, and rhythm when changing movement. Such findings are natural for children in elementary school because their coordination and motor balance are still developing. This situation indicates that training must focus on consistency and guided repetition to strengthen movement patterns. Football learning at this stage functions not only to introduce basic techniques but also to develop discipline, confidence, and coordination. When supported by structured instruction, this learning process becomes more meaningful and helps shape students' physical and mental growth. The study highlights that improving dribbling ability is not only about mastering a skill but also about nurturing control and awareness of movement.

According to Bednarczuk et al. (2025), balance and stability are fundamental factors that influence the accuracy of ball control. This finding aligns with the observations in this study, where students who displayed better posture tended to complete the dribbling course more smoothly. Ke et al. (2025)

also found that diverse physical activities contribute to improving motor and cognitive abilities, which supports the idea that regular exposure to sports enhances coordination. Similarly, Huang et al. (2025) emphasized that systematic assessments help teachers identify students' strengths and weaknesses more effectively. Yarayan et al. (2025) stated that focus and motivation have a direct impact on performance quality, explaining why students who were enthusiastic during testing often achieved better results. These perspectives show that dribbling ability is built not only through physical practice but also through psychological readiness. Encouragement, confidence, and consistent training become the keys to progress in early football education.

Zhang et al. (2025) emphasized that testing environments resembling real game conditions create more accurate evaluations of football skills. The zigzag cone formation used in this study reflects such an approach, where students were required to combine control, balance, and speed in a dynamic setting. Fang et al. (2025) developed a structured model of player positioning using algorithmic logic, which, when adapted to education, illustrates the importance of discipline and clear instruction. Likewise, Alves (2025) showed that consistent training records could help predict improvement patterns over time. In this study, the data obtained from each student became a useful reference for understanding performance variation. Gamberini et al. (2025) observed that football also develops social responsibility and teamwork, a point that resonates with this research where students supported and motivated one another during the test. This combination of physical and social learning makes football a valuable medium for holistic education.

Pawlik et al. (2025) found that differences in individual abilities significantly affect group dynamics in team sports. The same situation was seen in this study, where students who had stronger control became examples for their peers, while those with weaker coordination learned through observation and repetition. Gaviria Alzate et al. (2025) also discovered that tactical awareness improves decision-making and accuracy, which implies that even basic drills can include elements of planning and anticipation. For elementary learners, these cognitive components can be introduced in simple forms, such as predicting the next movement or controlling tempo during dribbling. The combination of physical and cognitive exercises encourages students to learn through experience rather than memorization. This approach helps them not only understand how to perform a skill but also why it must be performed in a certain way. The learning process thus becomes more active, reflective, and enjoyable for students.

The dominance of the "sufficient" category also reflects limitations in the existing football learning structure at the school level. Practice time is often limited, and teachers must divide attention among many students, which reduces the intensity of feedback. Consequently, some students improve more slowly than others. These results suggest that more focused training sessions with smaller groups could help increase skill mastery. Consistent repetition, gradual difficulty, and individualized feedback are key strategies to enhance learning outcomes. Moreover, the findings highlight the need for schools to provide adequate facilities and spaces for physical education. When resources are sufficient, the learning atmosphere becomes more engaging and productive. The presence of supportive infrastructure plays a major role in sustaining motivation and improving technical progress.

Feedback emerged as an important factor in this research. Students who received simple corrections and positive reinforcement after testing showed a higher willingness to try again. This process helps build self-confidence and reduces anxiety toward evaluation. Feedback should not only focus on

mistakes but also highlight progress, as appreciation encourages continuous effort. Teachers who adopt a supportive communication style can transform routine drills into enjoyable challenges. Over time, this method creates a mindset that values persistence over perfection. Football, therefore, becomes a space where students learn patience, responsibility, and teamwork. This educational value extends beyond the field and influences students' behavior in other aspects of learning and daily life. Environmental conditions also played a role in shaping test performance. The dribbling course was arranged on a regular school field with natural surface variations, which added an element of realism but also minor inconsistencies in speed and balance. Such challenges mirror real game conditions and teach students to adapt to different surfaces. Despite limited equipment, the activity ran smoothly because of clear instruction and student cooperation. These circumstances demonstrate that effective physical education does not depend solely on advanced facilities. What matters most is how teachers manage available resources and ensure that learning remains fair and meaningful. Simplicity combined with creativity can produce valuable experiences that foster growth and enthusiasm for sports among students.

The implications of this study extend to teaching practice and curriculum development. Teachers should integrate periodic skill evaluations to track student progress and design suitable follow-up exercises. These evaluations not only measure performance but also serve as motivation for students to improve. Physical education lessons should include structured warm-ups, focused drills, and feedback sessions that emphasize both process and outcome. Schools could also encourage collaboration among teachers to share teaching strategies that promote active learning. By maintaining balance between physical training and character education, schools can ensure that sports learning contributes to broader educational goals. Consistent evaluation and targeted instruction will help bridge the gap between participation and performance.

The use of descriptive evaluation in this study proved effective in providing clear information about student abilities. Categorizing results made it easier for teachers to identify areas requiring support or enhancement. This approach is practical for school-level application because it does not demand complex testing procedures. Teachers can replicate similar methods for other basic football skills, such as passing or shooting, to form a comprehensive understanding of student capabilities. Moreover, data-based evaluation encourages transparency and accountability in the teaching process. It allows educators to make informed decisions supported by evidence rather than assumptions. Through consistent evaluation, both teachers and students become more aware of the learning process and outcomes.

Overall, this discussion reinforces the importance of structured and continuous assessment in football learning at the elementary level. The study confirms that early evaluation helps teachers monitor progress and improve instructional design. Although the results indicate that most students are still at a moderate level, this stage represents a crucial foundation for further improvement. Regular practice, guided feedback, and supportive learning environments will help students refine their dribbling ability and physical coordination. Beyond technical achievement, the study also highlights how football nurtures teamwork, confidence, and discipline—qualities that contribute to overall student development. With sustained effort and adaptation, schools can transform football education into a powerful medium for fostering lifelong physical activity and character growth.

CONCLUSIONS

This research concludes that the dribbling ability of students at UPT SPF SDN Monginsidi III generally falls within the moderate or sufficient category. The results show that students already possess a basic understanding of how to control and move the ball, yet many still face challenges in maintaining rhythm, balance, and direction during play. These findings illustrate that while physical education has introduced fundamental football skills effectively, more consistent and structured training is still needed to achieve better technical outcomes. Repeated practice, clear instruction, and immediate feedback are key elements in helping students refine their movement and coordination. The study also highlights that the process of learning football extends beyond improving skill—it builds discipline, cooperation, and confidence, which are valuable qualities in character development. By applying continuous assessment and creative learning strategies, schools can ensure that football becomes a meaningful part of students' physical and personal growth. In essence, this study reinforces that effective teaching in sports is not defined only by performance, but by how well it shapes students to become active, resilient, and confident learners.

AUTHOR'S CONTRIBUTION

This study was conceptualized, designed, and conducted by Muhammad Nur Ihwan, who carried out the data collection, analysis, and manuscript preparation. Dr. M. Adam Mappaompo, M.Pd provided primary academic supervision, including guidance on research methodology, data interpretation, and overall manuscript structure. Ishak Bachtiar, S.Pd., M.Pd contributed through technical advice, critical feedback, and refinement of the discussion and conclusion sections. All contributors reviewed and approved the final version of the manuscript.

REFERENCES

Alves, R. (2025). SCORE: A convolutional approach for football event forecasting. *International Journal of Forecasting*, *41*(4), 1636–1652. https://doi.org/10.1016/j.ijforecast.2025.02.004

Angeli, M., Hassandra, M., Krommidas, C., Kolovelonis, A., Bouglas, V., & Theodorakis, Y. (2022). Implementation and Evaluation of a School-Based Educational Program Targeting Healthy Diet and Exercise (DIEX) for Greek High School Students. *Sports*, *10*(12), 196. https://doi.org/10.3390/sports10120196

Ansari, A. N., & Rizvi, N. F. (2023). School-based interventions promoting social capabilities among students: A scoping review of literature. *Review of Education*, *11*(2), e3404. https://doi.org/10.1002/rev3.3404

Bednarczuk, G., Marszałek, J., Molik, B., Nowak, A. M., & Bastos, T. (2025). Balance level of elite amputee football players. *Scientific Reports*, *15*(1). https://doi.org/10.1038/s41598-025-00447-y

Cao, S. (2024). Passing path predicts shooting outcome in football. *Scientific Reports*, *14*(1), 9572. https://doi.org/10.1038/s41598-024-60183-7

Carroll, M., Lindsey, S., Chaparro, M., & Winslow, B. (2021). An applied model of learner engagement and strategies for increasing learner engagement in the modern educational environment. *Interactive Learning Environments*, *29*(5), 757–771. https://doi.org/10.1080/10494820.2019.1636083

Castro-Alonso, J. C., de Koning, B. B., Fiorella, L., & Paas, F. (2021). Five Strategies for Optimizing Instructional Materials: Instructor- and Learner-Managed Cognitive Load. *Educational Psychology Review*, *33*(4), 1379–1407. https://doi.org/10.1007/s10648-021-09606-9

Chen, C.-M., Li, M.-C., & Chen, Y.-T. (2022). The effects of web-based inquiry learning mode with the support of collaborative digital reading annotation system on information literacy instruction. *Computers & Education*, *179*, 104428. https://doi.org/10.1016/j.compedu.2021.104428

Diekhoff, H., & Greve, S. (2025). Digital technology in game-based approaches: Video tagging in football in PE. *Physical Education and Sport Pedagogy*, *30*(5), 535–547. https://doi.org/10.1080/17408989.2023.2256758

Fan, Y., Tang, L., Le, H., Shen, K., Tan, S., Zhao, Y., Shen, Y., Li, X., & Gašević, D. (2025). Beware of metacognitive laziness: Effects of generative artificial intelligence on learning motivation, processes, and performance. *British Journal of Educational Technology*, *56*(2), 489–530. https://doi.org/10.1111/bjet.13544

Fang, Z., Yao, X., & Song, M. (2025). An intelligent algorithm for optimizing player positioning using circular intuitionistic fuzzy COCOSO with Einstein aggregation. *Scientific Reports*, *15*(1). https://doi.org/10.1038/s41598-025-08605-y

Fernández, J., Bornn, L., & Cervone, D. (2021). A framework for the fine-grained evaluation of the instantaneous expected value of soccer possessions. *Machine Learning*, *110*(6), 1389–1427. https://doi.org/10.1007/s10994-021-05989-6

Fikriyati, M., Katoningsih, S., & Hasan, S. (2023). Use of Loose Part Media With Cardboard and Sand Materials in Islamic Children's Schools. *Nazhruna: Jurnal Pendidikan Islam*, *6*(1), 60–71. https://doi.org/10.31538/nzh.v6i1.2858

Gamberini, L., Semeraro, F., Van Goor, S., Bahtijarevic, Z., Klomp, P., Verhagen, E., Greif, R., Van Dooren, J., Monsieurs, K. G., & Lott, C. (2025). The UEFA EURO 2024 Get Trained Save Lives campaign – Promoting public health during mega sport events. *Resuscitation*, *215*. https://doi.org/10.1016/j.resuscitation.2025.110759

Gaviria Alzate, S. J. O., Higuita, D. A., Jaramillo, A. F., & Machado, J. A. (2025). Impact of the Tactical Critical Thinking Program (TPCT) on ball control and passing accuracy in U-8 football players: A quasi-experimental study. *International Journal of Sports Science and Coaching*, *20*(5), 1972–1986. https://doi.org/10.1177/17479541251335229

Hew, K. F., Huang, W., Du, J., & Jia, C. (2023). Using chatbots to support student goal setting and social presence in fully online activities: Learner engagement and perceptions. *Journal of Computing in Higher Education*, *35*(1), 40–68. https://doi.org/10.1007/s12528-022-09338-x

Huang, J., Zhang, Y., Xu, M., Lv, Y., Zhang, J., & Shafieezadeh, M. M. (2025). Hybrid FAHP-FTOPSIS methodology for objective football player selection and ranking. *Scientific Reports*, *15*(1). https://doi.org/10.1038/s41598-025-13973-6

Jääskä, E., & Aaltonen, K. (2022). Teachers' experiences of using game-based learning methods in project management higher education. *Project Leadership and Society*, *3*, 100041. https://doi.org/10.1016/j.plas.2022.100041

Ke, Y., Bao, M., Qu, X., Yan, Y., Li, L., Wang, Y., Wu, Y., Li, X., & Liu, Y. (2025). The effect of diverse sports skills interventions on physical fitness and brain development among Chinese high school students: A cluster randomized controlled trial study protocol. *Trials*, *26*(1). https://doi.org/10.1186/s13063-025-08788-9

Klotzbier, T. J., & Schott, N. (2024). Skillful and strategic navigation in soccer – a motor-cognitive dual-task approach for the evaluation of a dribbling task under different cognitive load conditions. *Frontiers in Psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1356892

Kovacs, V. A., Starc, G., Brandes, M., Kaj, M., Blagus, R., Leskošek, B., Suesse, T., Dinya, E., Guinhouya, B. C., Zito, V., Rocha, P. M., Gonzalez, B. P., Kontsevaya, A., Brzezinski, M., Bidiugan, R., Kiraly, A., Csányi, T., & Okely, A. D. (2022). Physical activity, screen time and the COVID-19 school closures in Europe – An observational study in 10 countries. *European Journal of Sport Science*, *22*(7), 1094–1103. https://doi.org/10.1080/17461391.2021.1897166

Kundu, A., Bej, T., & Rice, M. (2021). Time to engage: Implementing math and literacy blended learning routines in an Indian elementary classroom. *Education and Information Technologies*, *26*(1), 1201–1220. https://doi.org/10.1007/s10639-020-10306-0

Macy, J. T., Kercher, K., Steinfeldt, J. A., & Kawata, K. (2021). Fewer US Adolescents Playing Football and Public Health: A Review of Measures to Improve Safety and an Analysis of Gaps in the Literature. *Public Health Reports®*, *136*(5), 562–574. https://doi.org/10.1177/0033354920976553

Malik, F. A. (2025). Empowering communities: Navigating the Scope and Impediments of Islamic Microfinance in India. In H. Mohi-ud-Din Qadri, M. I. Bhatti, & M. A. Omar (Eds.), *The Routledge Handbook of Islamic Economics and Finance* (pp. 342–360). Taylor and Francis. https://doi.org/10.4324/9781003168508-27

Niemi, K. (2021). 'The best guess for the future?' Teachers' adaptation to open and flexible learning environments in Finland. *Education Inquiry*, *12*(3), 282–300. https://doi.org/10.1080/20004508.2020.1816371

Owan, V. J., Abang, K. B., Idika, D. O., Etta, E. O., & Bassey, B. A. (2023). Exploring the potential of artificial intelligence tools in educational measurement and assessment. *Eurasia Journal of Mathematics, Science and Technology Education*, *19*(8), em2307. https://doi.org/10.29333/ejmste/13428

Pawlik, M., Paluch, R., Boruta, M., & Hołyst, J. A. (2025). How random are team sports leagues? *Physica A: Statistical Mechanics and Its Applications*, *675*. https://doi.org/10.1016/j.physa.2025.130814

Saccardi, I., & Masthoff, J. (2025). Adapting emotional support in teams: Productivity, emotional stability, and conscientiousness. *Frontiers in Artificial Intelligence*, *8*. https://doi.org/10.3389/frai.2025.1449176

Sermaxhaj, S., Arifi, F., Havolli, J., Luta, F., & Isufi, I. (n.d.). The Effect of Physical Exercise according to a Programme for the Development of Flexibility in the Motor Abilities of Young Football Players. *Sport Mont*, *19*(1), 25–29.

Simpson, T., Ellison, P., Carnegie, E., & Marchant, D. (2021). A systematic review of motivational and attentional variables on children's fundamental movement skill development: The OPTIMAL theory. *International Review of Sport and Exercise Psychology*, *14*(1), 312–358. https://doi.org/10.1080/1750984X.2020.1809007

Tang, S. (2022). Cultural violence against Chinese single women in contemporary China: An in-depth analysis of three key societal pressures used to compel unmarried Chinese women to marry- devaluation, sympathy, and shame. *SN Social Sciences*, *2*(2), 17. https://doi.org/10.1007/s43545-022-00317-8

Tassignon, B., Verschueren, J., Baeyens, J.-P., Benjaminse, A., Gokeler, A., Serrien, B., & Clijsen, R. (2021). An Exploratory Meta-Analytic Review on the Empirical Evidence of Differential Learning as an Enhanced Motor Learning Method. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.533033

Thompson, F., Rongen, F., Cowburn, I., & Till, K. (2022). A case study of the features and holistic athlete impacts of a UK sports-friendly school: Student-athlete, coach and teacher perspectives. *PLOS ONE*, *17*(11), e0278401. https://doi.org/10.1371/journal.pone.0278401

Wibowo, C., Dese, D. C., & Nopiyanto, Y. E. (2024). Developing a precise gross motor skills assessment instrument for elementary school students (ages 7-9). *Pedagogy of Physical Culture and Sports*, *28*(2), 84–92. https://doi.org/10.15561/26649837.2024.0201

Yarayan, Y. E., Batrakoulis, A., Güngör, N. B., Kurtipek, S., Keskin, K., Çelik, O. B., Gülşen, D. B. A., Grivas, G. V., Al-Mhanna, S. B., Alkhamees, N. H., Sheeha, B. B., & Alghannam, A. F. (2025). The role of athletic mental energy in the occurrence of flow state in male football (soccer) players. *BMC Sports Science, Medicine and Rehabilitation*, *17*(1). https://doi.org/10.1186/s13102-025-01090-w

Zhang, C. (2024). Raising student motivation and interest in football through rich media platforms: The experience of China. *Interactive Learning Environments*, *32*(2), 572–584. https://doi.org/10.1080/10494820.2022.2091613

Zhang, Y., Deng, Q., Zheng, X., Xu, X., & Wang, F. (2025). Online continuing education for midwives in China: Current trends, barriers, and future directions. *BMC Medical Education*, *25*(1). Scopus. https://doi.org/10.1186/s12909-025-07180-0