

EXPLORING OBSTACLE COURSE GAMES IN PHYSICAL EDUCATION TO IMPROVE GROSS MOTOR SKILLS AND SELF-CONFIDENCE

^{*1}Bunyamin, ²Erwin Setyo Kriswanto

^{*1,2}Universitas Negeri Yogyakarta

Email: ^{*1}bunyamin0041fip.2025@student.uny.ac.id, ²erwin_sk@uny.ac.id

Abstract

This study aimed to explore the implementation of Obstacle Course games in Physical Education, Sports, and Health (PJOK) instruction and to identify their contributions to the development of elementary school students' gross motor skills and self-confidence. The study employed a qualitative approach with a case study design conducted among fourth-grade students at SD Negeri 002 Rantau Pulung. The research informants consisted of a PJOK teacher, students purposively selected based on variations in motor skills and self-confidence, and peers as supporting informants. Data were collected through participant observation, semi-structured interviews, documentation, and field notes. Data trustworthiness was strengthened through source, technique, and time triangulation, member checking, peer debriefing, and an audit trail. Data were analyzed using an interactive model consisting of data condensation, data display, and conclusion drawing and verification. The findings indicate that the implementation of the Obstacle Course provided students with active, progressive, and adaptive learning experiences. Improvements in gross motor skills were reflected in enhanced coordination, balance, agility, directional changes, body control, and independence in completing obstacle sequences. Meanwhile, self-confidence developed through increased willingness to try, persistence in facing failure, active participation, and readiness to complete challenges independently. Scaffolding, demonstrations, teacher feedback, difficulty-level modifications, and peer support emerged as important mechanisms facilitating these changes. This study confirms that Obstacle Course activities can serve as a pedagogical strategy that integrates the development of motor competencies and psychosocial skills in elementary school PJOK instruction.

Keywords: Obstacle Course, gross motor skills, self-confidence, Physical Education, elementary school, game-based learning

Abstrak

Penelitian ini bertujuan untuk mengeksplorasi penerapan permainan Obstacle Course dalam pembelajaran Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK) serta mengidentifikasi kontribusinya terhadap perkembangan keterampilan motorik kasar dan kepercayaan diri siswa sekolah dasar. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus yang dilaksanakan pada siswa kelas IV SD Negeri 002 Rantau Pulung. Informan penelitian terdiri atas guru PJOK, siswa yang dipilih secara purposif berdasarkan variasi kemampuan motorik dan kepercayaan diri, serta teman sebaya sebagai informan pendukung. Data dikumpulkan melalui observasi partisipatif, wawancara semi-

terstruktur, dokumentasi, dan catatan lapangan. Keabsahan data diperkuat melalui triangulasi sumber, teknik, dan waktu, member checking, peer debriefing, serta audit trail. Analisis data menggunakan model interaktif yang meliputi kondensasi data, penyajian data, serta penarikan dan verifikasi kesimpulan. Hasil penelitian menunjukkan bahwa penerapan Obstacle Course memberikan pengalaman pembelajaran yang aktif, bertahap, dan adaptif. Perkembangan keterampilan motorik kasar terlihat pada peningkatan koordinasi, keseimbangan, kelincahan, kemampuan berpindah arah, kontrol tubuh, dan kemandirian dalam menyelesaikan rangkaian rintangan. Sementara itu, kepercayaan diri berkembang melalui meningkatnya keberanian mencoba, ketekunan menghadapi kegagalan, partisipasi aktif, dan kesiapan menyelesaikan tantangan secara mandiri. Scaffolding, demonstrasi, umpan balik guru, modifikasi tingkat kesulitan, serta dukungan teman sebaya menjadi mekanisme penting dalam mendukung perubahan tersebut. Penelitian ini menegaskan bahwa Obstacle Course dapat menjadi strategi pedagogis yang mengintegrasikan pengembangan kompetensi motorik dan psikososial dalam pembelajaran PJOK sekolah dasar.

Kata kunci: Obstacle Course, keterampilan motorik kasar, kepercayaan diri, PJOK, sekolah dasar, pembelajaran berbasis permainan

INTRODUCTION

Physical Education, Sport, and Health (Pendidikan Jasmani, Olahraga, dan Kesehatan/PJOK) is an integral part of primary education that is directed not only toward the development of physical ability, but also contributes to students' motor, cognitive, social, and psychological development. PJOK instruction provides students with a space in which to gain movement experience through activities that are structured, meaningful, and appropriate to their developmental stage. At the elementary school level, such experience is particularly important, as this period represents the phase in which fundamental movement skills develop through activities such as walking, running, jumping, throwing, catching, maintaining balance, and changing direction. Mastery of fundamental movement skills forms the foundation for children's engagement in more complex physical activity at later developmental stages. Systematic reviews indicate that school-based interventions can consistently improve children's fundamental movement skills (FMS), with interventions of higher frequency and longer duration tending to produce greater benefits for movement competence (Koolwijk et al., 2024; Moon et al., 2024).

Gross motor skill is an important component of children's movement development, as it involves the use of large muscle groups to produce coordinated bodily movement. Such skills encompass locomotor ability, stability, and object manipulation, which form the basis for various forms of physical activity and sport. Children with stronger motor competence tend to have greater opportunities to participate in physical activity, as they are able to perform movement tasks more effectively and with greater confidence. Conversely, delayed or lower motor competence can act as a barrier to active participation, as children may find it difficult to keep up with the activities carried out by their peers. Recent empirical evidence indicates that physical activity interventions that explicitly target motor development produce more consistent improvements in movement skill compared with general physical activity that is not specifically directed toward the development of motor competence (Wang & Zhou, 2024; Zhang et al., 2024).

In the context of PJOK instruction at the elementary school level, the issue of motor

competence cannot be separated from variation in students' individual abilities. Each student has a different level of motor readiness, physical activity experience, bodily coordination, and level of confidence. When instruction employs a uniform pattern of activity without accounting for these differences, students with lower motor ability may struggle to follow instructions and complete movement tasks. This situation can result in repeated experiences of failure. If not addressed through appropriate instructional strategies, such failure affects not only motor skill but can also shape students' perceptions of their own abilities.

The psychological dimension of self-confidence is important in PJOK instruction because physical activity often places students in situations that require the courage to attempt new movements, face challenges, and accept the possibility of error. In the context of physical activity, self-confidence relates to students' belief that they are capable of completing a given movement task. Students with a positive perception of their own competence tend to be more willing to attempt tasks, persist when experiencing difficulty, and participate actively. Conversely, students who perceive their movement ability as low may display avoidant, passive behavior, fear of making mistakes, or dependence on help from the teacher or peers. Effective PJOK instruction therefore needs to provide realistic experiences of success, so that students not only develop their skills but also build the belief that they are capable of engaging in physical activity.

This relationship between motor competence and psychological factors means that PJOK instruction cannot be oriented solely toward physical performance outcomes. Movement activity needs to be designed as a learning experience that allows students to encounter graduated challenges, receive feedback, and experience success. Such an approach can create a learning environment that supports both competence development and affective growth. In the context of physical education, the quality of an intervention is determined not only by how often students move, but also by how the activity is designed to give students meaningful learning opportunities suited to their level of ability (Dudley et al., 2022). One form of activity with the potential to meet these characteristics is the obstacle course game. An obstacle course is an activity that arranges a series of movement challenges in sequence, requiring learners to make their way through obstacles using a combination of motor skills. Such a sequence may include running past cones, jumping through hoops, walking along a balance line, crawling through a designated space, passing under low obstacles, or changing direction. These characteristics allow a single instructional activity to integrate several components of motor skill simultaneously. An obstacle course is thus not merely a game for increasing physical activity, but can be designed as a systematic motor-learning environment.

The primary advantage of the obstacle course in PJOK instruction lies in its flexibility. Teachers can determine the number of stations, the type of obstacles, the distance between stations, the duration of the activity, and the level of difficulty based on students' characteristics. Such modification allows teachers to create a challenge that lies within students' reach while still providing a stimulus for growth. For example, students who still struggle with jumping can be given a low obstacle, while students with stronger ability can be given a more complex challenge. This principle of progressivity is important in motor learning, as skills develop through repeated experience accompanied by a gradual increase

in movement demands (Koolwijk et al., 2024).

Recent research evidence reinforces the importance of structured play activity for developing fundamental motor skills. A systematic review of active play interventions shows that active play can have a positive effect on the development of children's fundamental movement skills, although its effectiveness is influenced by program characteristics and implementation quality (Zhang et al., 2024). Likewise, a meta-analysis of school-based interventions found that most of the programs studied were effective in improving fundamental movement competence, with interventions of longer duration, higher frequency, and delivery over a medium- to long-term period showing greater potential for improving children's movement skills (Moon et al., 2024). The study by Koolwijk et al. (2024) also shows that fundamental movement skill interventions for children are effective when activities are purposefully designed and provide adequate opportunity for practice. This finding provides a basis for developing obstacle course activity not merely as a recreational activity, but as a pedagogical intervention that deliberately targets specific components of motor skill. By sequencing obstacles according to a developmental progression of skill—for example, balance, locomotion, direction change, jumping, and coordination—teachers can turn the obstacle course into a measurable instructional instrument.

In addition to its motor dimension, the obstacle course game has the potential to support the development of students' self-confidence. Each obstacle provides a relatively clear target that can be completed in stages. Students can directly observe that they are capable of completing one challenge before moving on to the next. This repeated experience of success can shape a more positive perception of competence. In other words, the structure of the obstacle course allows success to be broken down into a series of small achievements, giving students who initially doubted their physical ability an opportunity to build confidence through direct experience. The social dimension is another advantage of the obstacle course game. The activity can be carried out individually, in pairs, or in small groups. When designed collaboratively, students can support one another, take turns, offer encouragement, and observe their peers' strategies for completing an obstacle. This kind of environment can help reduce performance pressure, as students are not judged solely on the basis of outcome but are instead guided to complete challenges according to their own ability. This is important for creating an inclusive PJOK environment that supports the participation of students with differing levels of motor competence.

In its implementation, the teacher's role is a critical factor in determining the success of the obstacle course. It is not sufficient for the teacher merely to set up the obstacles; the teacher must also provide demonstration, clear instruction, feedback, and appropriate support. Scaffolding can be provided at the early stage, when students do not yet understand how to perform a movement or show hesitation in navigating an obstacle. As students demonstrate improved ability, assistance can be gradually withdrawn to give them the opportunity to carry out the activity independently. This strategy allows the teacher to maintain a balance among safety, challenge, and student autonomy. The use of instruction and feedback also needs to consider how students' attention is directed during movement. Systematic reviews show that instruction and feedback that direct attention toward the effect or goal of a movement (an external focus) can support children's motor learning process (van der Veer

et al., 2022). In the obstacle course, this principle can be applied by directing students to focus on a target such as "landing inside the hoop," "passing the cone without touching it," or "reaching the finish line while maintaining balance," rather than providing excessive instruction about the position of individual body parts. This strategy can help students understand the goal of a movement in a simpler, more functional way.

The obstacle course game is also relevant to game-based learning approaches. Play activity provides a more enjoyable context than repetitive, monotonous movement drills. When students perceive an activity as a game, they tend to be more emotionally engaged and have the opportunity to repeat movements without feeling as though they are undergoing strenuous training. Evidence from a systematic review of sport-game interventions shows that game-based activity can contribute to the improvement of children's fundamental motor skills (Sun & Chen, 2024). The use of an obstacle course can therefore serve as an alternative for combining motor-learning objectives with an engaging play experience. Nevertheless, research on the obstacle course within the context of primary education still has room for development. Recent literature has focused more heavily on fundamental motor skill interventions in general, active play, school-based physical activity, or sport-game models. Meanwhile, studies that specifically integrate the obstacle course as a PJOK instructional strategy targeting two outcomes simultaneously—gross motor skill and self-confidence among elementary school students—remain relatively limited. This gap is important because improvement in motor skill does not necessarily lead automatically to psychological change if the learning experience is not designed to build students' sense of competence and success.

Another gap lies in the pedagogical approach. Much research on motor interventions focuses on program effectiveness in terms of movement skill scores, while the learning process that allows students to overcome fear, hesitation, and psychological barriers has not always received primary attention. Yet in PJOK instruction at the elementary school level, the motor and affective dimensions occur simultaneously: students perform movements while at the same time constructing a perception of their own ability. Research that examines changes in motor ability alongside self-confidence can therefore provide a more comprehensive picture of the effectiveness of an instructional strategy.

The novelty of this study lies in the integration of the obstacle course as a challenge-based learning experience, adaptively designed to develop two domains of development simultaneously: gross motor skill and students' self-confidence. This study does not position the obstacle course merely as a physical activity, but as a pedagogical design that combines progressive difficulty, teacher scaffolding, experiences of success, and peer support. The contribution of this study therefore lies not only in the question of whether the obstacle course improves motor ability, but also in how the experience of completing movement challenges can contribute to the development of students' belief in their own ability.

A further element of novelty is the implementation of the obstacle course within the PJOK instruction of students at SD Negeri 002 Rantau Pulung, taking into account the actual conditions of learning at the elementary school level. This study can provide contextual evidence on how a relatively simple obstacle game, which can be modified using available school equipment, can be applied as an adaptive instructional strategy. This approach has practical value because the obstacle course does not always require complex sporting

facilities. Teachers can use cones, ropes, hoops, lines, low benches, or other simple equipment to construct a course that is both safe and progressive. From this perspective, this study is important because the development of gross motor skill and self-confidence are interrelated components in shaping high-quality PJOK learning experiences. Children with stronger motor ability have greater opportunities to participate in physical activity, while experiences of success in physical activity can strengthen their perception of competence and self-confidence. An intervention capable of bringing these two dimensions together has the potential to provide broader benefits than instruction that is oriented solely toward the achievement of movement skill. Accordingly, this study is directed toward exploring the application of the obstacle course game in PJOK instruction to improve gross motor skill and self-confidence among students at SD Negeri 002 Rantau Pulung. This study is expected to make an empirical contribution to the development of PJOK instruction that is more active, enjoyable, adaptive, and oriented toward children's holistic development. In practical terms, the findings of this study may serve as a reference for PJOK teachers in designing movement activities that not only improve motor competence but also create experiences of success capable of strengthening students' courage and self-confidence.

METHOD

This study employed a qualitative approach with a case study design to explore in depth the application of the Obstacle Course game in Physical Education, Sport, and Health (PJOK) instruction, along with its implications for gross motor skill and self-confidence among Grade IV students at SD Negeri 002 Rantau Pulung. This approach was selected because it allows the researcher to understand students' experiences, interactions, responses, and instructional dynamics holistically within their natural context (Moleong, 2018; Sugiyono, 2019). The study was conducted from April to June 2026, with the research site and informants selected purposively based on their relevance to the research focus.

Participants consisted of one PJOK teacher, 6–8 Grade IV students with varying levels of motor ability and self-confidence, and 3–5 peers serving as supporting informants. Secondary data in the form of lesson plans, field notes, photographs, videos, and school documents were also analyzed. Data were collected through participatory observation, semi-structured interviews, and documentation. Observation focused on movement patterns, adaptation to obstacles, emotional responses, scaffolding strategies, teacher feedback, and social interaction. Interviews were used to explore students' experiences and the teacher's perspective on the instructional process.

The researcher served as the primary instrument, with observation and interview guides functioning as supporting instruments. Data credibility was strengthened through triangulation of sources, techniques, and time; member checking; peer debriefing; audit trails; and researcher reflexivity, in order to support the credibility, transferability, dependability, and confirmability of the findings (Gunawan, 2013; Moleong, 2018). Data were analyzed using the interactive model of Miles et al. (2014), comprising data condensation, data display, and conclusion drawing/verification. Analysis was conducted iteratively from the point of data collection through to the achievement of informational saturation. Findings are presented through thick description in order to contextually explain the relationship between the Obstacle Course experience, the development of gross motor

skill, and the construction of students' self-confidence.

RESULTS AND DISCUSSION

The findings of this study on the application of the Obstacle Course game in Physical Education, Sport, and Health (PJOK) instruction among Grade IV students at SD Negeri 002 Rantau Pulung indicate positive change in students' gross motor skill and self-confidence. These findings were obtained through participatory observation, semi-structured interviews with the teacher and students, documentation of activities, and field notes. Data were analyzed interactively through the processes of data condensation, data display, and conclusion drawing/verification. The analysis yielded several major themes: change in gross motor skill, increased courage and self-confidence, the role of teacher scaffolding and feedback, peer support, and students' ability to adapt to varied obstacles.

At the initial stage of instruction, students' gross motor ability was found to vary considerably. Some students were able to perform basic movements such as walking, running, and jumping relatively well, but still experienced difficulty when several of these skills had to be performed in sequence within a single activity chain. This difficulty was particularly evident when students had to change direction, maintain balance after jumping, pass obstacles of a certain height, or move quickly from one station to the next. Some students appeared to slow down when approaching an obstacle and needed time to decide which movement to perform. This condition indicates that the ability to perform basic movements individually is not always accompanied by the ability to integrate several movements within a dynamic situation.

Observation results also revealed differences in students' level of readiness when facing movement challenges. Students with stronger motor ability tended to attempt an obstacle immediately after the teacher gave instructions. In contrast, students who were less confident in their motor ability more often watched their peers first, asked for the demonstration to be repeated, or waited for help from the teacher. This difference indicates that motor ability and psychological readiness are interrelated in the PJOK learning process. Students required not only the physical ability to complete an obstacle, but also the belief that they were capable of performing the task.

After the Obstacle Course game was implemented progressively, changes occurred in students' movement patterns. Students began to follow the sequence of obstacles in a more structured manner. Movement that was initially disjointed began to become more continuous. Students became increasingly able to determine when to run, jump, stop, change direction, or maintain balance. This change was evident through a reduction in the frequency of stopping between obstacles and an increase in students' ability to complete the course without continuous verbal instruction from the teacher.

Improvement was also observed in coordination and balance. At the start of the activity, some students displayed an unstable body position when landing after a jump or when changing direction suddenly. After repeated practice, students began to show better body control. They were able to adjust the position of their feet and body when facing a change in the course. Students also began to use different movement strategies depending on the characteristics of a given obstacle. For example, at obstacles requiring balance, students

slowed their movement and adjusted their body position, whereas on straight sections of the course they were able to increase their speed. These findings indicate the development of motor adaptation ability over the course of instruction. Positive change was also found in students' ability to complete the activity sequence independently. At the initial stage, some students still required teacher assistance to begin a movement, pass a particular obstacle, or determine the sequence of activities. However, after repeated experience, dependence on teacher assistance began to decrease. Students became increasingly able to remember the sequence of obstacles and determine their movement strategy without waiting for instruction at each stage. This independence is an important indicator that the Obstacle Course activity not only improved movement performance but also gave students the opportunity to make decisions during physical activity.

The next finding relates to change in students' self-confidence. At the outset, some students displayed fear and hesitation when facing obstacles perceived as difficult. This hesitation was displayed through behaviors such as retreating from the course, asking for help from the teacher, stating that an obstacle was too difficult, or waiting for a peer to complete it first. However, after successfully completing simpler obstacles, students began to show the courage to face more complex challenges. This experience of success appeared to be an important trigger for a change in students' attitude toward physical activity. Self-confidence was also evident in students' increased initiative to try again after making a mistake. At the initial stage, failure to pass an obstacle tended to cause some students to stop or ask for help. In subsequent sessions, students began to show a different response: they were willing to repeat a movement, observed how their peers completed an obstacle, and attempted different strategies. This change indicates the emergence of persistence in facing challenges. In the context of PJOK instruction, this behavior is an important indicator of the development of self-confidence, as students began to view mistakes as part of the learning process.

Interview results with the teacher indicate that the Obstacle Course game made students more enthusiastic about participating in PJOK instruction compared with activities using only conventional instruction and drills. The teacher observed that students were more actively waiting for their turn, paying attention to demonstrations, and responding to the challenges given. The teacher also reported that the game format made it easier to identify students experiencing difficulty in particular aspects. The Obstacle Course thus provided the teacher with the opportunity to adjust activities according to students' individual needs. The teacher's role in this process emerged as an important finding. The teacher acted not only as an instruction-giver but also as a facilitator who provided scaffolding according to students' needs. At the initial stage, the teacher gave direct demonstrations, explained the rules of the game, showed how to pass each obstacle, and provided assistance when students experienced difficulty. This assistance was then gradually reduced as students began to master the movements. This strategy of gradually withdrawing assistance gave students room to build independence and confidence in their own ability.

Teacher feedback also contributed to changes in student performance. Feedback was given immediately after a student performed an incorrect movement. The teacher not only corrected mistakes but also provided reinforcement when students successfully completed an obstacle. Positive reinforcement in the form of praise, encouragement, and recognition of

students' effort made them more willing to try again. Observation results show that students became more responsive to the teacher's direction after receiving specific, constructive feedback. In addition to the teacher, peers also contributed to the learning atmosphere. Students were observed watching how their peers navigated an obstacle and using this observation as a reference when it was their own turn. Verbal support from peers, such as encouragement or appreciation after a peer succeeded, created a more positive learning environment. This interaction helped students who lacked confidence feel safer in attempting the task. The Obstacle Course learning activity thus created not only an individual experience but also a social experience shaped through observation and mutual support among students.

Documentation in the form of photographs and video reinforced the observation results regarding changes in student behavior. The documentation showed a shift from students who, at the start of the activity, tended to wait for instruction, toward students who became more actively engaged in the activity sequence. The documentation also showed that students were gradually able to complete the course with less teacher assistance. This change was consistent with the interview results and field notes, thereby strengthening the credibility of the findings through methodological triangulation. Overall, the findings indicate that the application of the Obstacle Course produced three main changes. First, there was development in gross motor skill, particularly in coordination, balance, agility, the ability to change direction, and the integration of several basic movements. Second, there was change in affective behavior, marked by increased courage to attempt tasks, persistence, participation, and self-confidence. Third, there was change in the pattern of instructional interaction, marked by an increased role for the teacher as facilitator and the emergence of peer support.

These findings indicate that the Obstacle Course can serve as a PJOK learning environment that allows students to gain both movement experience and positive psychological experience simultaneously. Success in completing an obstacle provided concrete evidence that students were capable of facing a challenge, while repeated practice allowed motor skill to develop progressively. The relationship between these two dimensions is evident in the pattern of change observed among students: improved ability to complete movement tasks was followed by increased courage to attempt new challenges, while increased self-confidence, in turn, encouraged students to practice more actively. The application of the Obstacle Course in this study therefore produced not only change in gross motor skill, but also supported the development of students' self-confidence and engagement in PJOK instruction.

DISCUSSION

The findings indicate that the application of the Obstacle Course game in PJOK instruction made a positive contribution to the development of gross motor skill and self-confidence among Grade IV students at SD Negeri 002 Rantau Pulung. This change was evident not only in students' ability to complete the sequence of obstacles, but also in changes in patterns of participation, courage to attempt tasks, ability to adapt to movement challenges, and reduced dependence on teacher assistance. These findings show that the Obstacle Course can function as a learning environment that integrates motor activity, movement problem-solving, experiences of success, and social interaction within a single sequence of activity.

This result is consistent with the systematic review and meta-analysis by Moon et al. (2024), which found that physical activity interventions among elementary school children produce a moderate-to-large effect on motor competence development, with a pooled effect size of Hedges' $g = 0.71$. That study also emphasized the importance of tailoring interventions to the characteristics of the instructional context and to students' needs.

The improvement in gross motor skill observed in this study was evident primarily in movement coordination, balance, the ability to change direction, agility, and the ability to integrate several basic skills within a single movement sequence. At the start of instruction, some students still experienced difficulty performing movements in sequence. Running, jumping, maintaining balance, and changing direction tended to be performed separately and required additional instruction from the teacher. After repeated participation in the Obstacle Course game, students became increasingly able to link one movement to the next more smoothly. This change indicates that activities providing students with the opportunity to practice multiple skills in an integrated manner can support the development of fundamental movement skills.

This finding is consistent with the study by Sun and Chen (2024), which, through a systematic review and meta-analysis of 12 studies involving 1,608 children, found that sport-game-based interventions produced significantly greater development of fundamental motor skills compared with control groups, with an overall effect reaching a standardized mean difference of 0.30. That study also showed that game-based interventions with adequate duration and frequency of practice produced better results. The present findings extend this evidence by showing that the Obstacle Course game format can be used to create a progressive learning experience—that is, one in which students not only perform repeated movements but also face a variety of obstacles that require them to adjust their motor responses.

One important characteristic of the Obstacle Course is that it demands students' ability to adjust their movement based on environmental conditions. When the height, distance, shape, or direction of an obstacle changes, students must redetermine their movement strategy. In this study, this adaptive ability was evident as students began to regulate their speed, stride length, body position, and jump timing according to the characteristics of a given obstacle. This indicates that the motor development observed was not merely an improvement in the mechanical execution of movement, but also an improvement in the ability to organize movement based on environmental information. The Obstacle Course thus provides a rich context for developing motor control and adaptive ability.

Improved balance was another important finding. Some students displayed instability at the start of instruction when landing after a jump or when suddenly changing direction. Through repeated practice, students began to control their body position and maintain stability when moving from one obstacle to the next. This development is relevant to the findings of Bao et al. (2024), which showed a relationship between motor competence and executive function among children and adolescents. This relationship indicates that motor skill does not stand alone, but is related to processes of response regulation, attention, and behavioral control. The Obstacle Course activity, which requires students to attend to the sequence of obstacles and adjust their movement responses accordingly, therefore has the potential to

provide a more complex learning experience than repetitive movement drills.

The findings also indicate a change in students' self-confidence. At the start of the activity, some students displayed hesitation, fear of making mistakes, and a tendency to ask for the teacher's help when facing obstacles perceived as difficult. After gaining experience in completing obstacles progressively, students began to show the courage to try again and to complete tasks more independently. This change indicates that experiences of success in motor activity can serve as an important psychological experience for the formation of self-confidence. Students obtained concrete evidence that they were capable of completing a challenge that had previously been perceived as difficult. In this context, the Obstacle Course has a pedagogical advantage in that it presents challenges in the form of concrete, observable tasks. Students can directly see their own progress when they succeed in passing an obstacle. Such success can produce a more positive perception of competence. Conversely, when students experience failure, the teacher can immediately modify the task or provide assistance, so that the failure does not develop into a lasting negative experience. A graduated activity structure is therefore an important element in supporting the development of self-confidence.

The teacher's scaffolding role is another factor explaining the success of the Obstacle Course intervention. The teacher provided demonstration, instruction, individual assistance, motivation, and feedback according to students' needs. At the initial stage, assistance was given more intensively, particularly to students who still displayed hesitation or coordination difficulties. As students' ability developed, assistance was gradually withdrawn. This pattern allowed students to move from dependence on external assistance toward independence, and also allowed the teacher to implement instruction that was more responsive to differences in student ability. This finding reinforces the argument by Moon et al. (2024) that the success of motor competence interventions among elementary school children needs to take into account the characteristics of the instructional context and the needs of learners. In that meta-analysis, physical education interventions in particular showed a large effect on children's motor competence. This indicates that it is not only the amount of physical activity that determines learning outcomes, but also how that activity is designed, delivered, and adapted to students' characteristics.

Peer support also emerged as a factor that reinforced the learning process. Students had the opportunity to observe peers who successfully completed an obstacle and then used that observation as a reference when it was their turn. Verbal support and appreciation from peers created a safer, more enjoyable learning atmosphere. This condition was important for students who initially had low self-confidence, as they did not face the challenge individually but were situated within a socially supportive environment. The Obstacle Course thus also functioned as a medium for social learning. From the perspective of PJOK instruction, these findings indicate that play can be a more meaningful approach than activity oriented solely toward the repetition of technique. In the Obstacle Course, students perform movements within the context of a game that has a clear objective—namely, completing the course. This objective provided intrinsic motivation to keep trying. Sun and Chen (2024) likewise showed that sport-game approaches are effective for improving children's fundamental motor skills. These findings therefore support a shift in PJOK instruction away from an approach overly

oriented toward the reproduction of movement, toward instruction that is more active, contextual, and enjoyable.

The novelty of this study lies in the integration of the development of gross motor skill and self-confidence through the Obstacle Course game within the context of elementary school PJOK instruction. Prior research has largely examined physical activity or game interventions primarily in terms of changes in motor competence. This study, by contrast, shows that motor change can occur simultaneously with affective change, particularly courage to attempt tasks, persistence, independence, and self-confidence. By employing a qualitative case study design, this study also provides information on how such change occurs, rather than solely on whether an intervention produces improvement. The findings reveal a reciprocal mechanism. As students' motor skill improved, they became more confident in facing the next obstacle. Conversely, increased self-confidence encouraged students to attempt and practice more frequently, thereby providing more opportunities to develop their motor skill. This pattern indicates that motor skill and self-confidence should not be regarded as two separate learning outcomes; both can develop through a learning experience that is designed in an integrated manner.

Overall, the findings indicate that the Obstacle Course is a potentially valuable PJOK instructional strategy for simultaneously developing students' physical and psychosocial dimensions. Its effectiveness lies not merely in the presence of obstacles, but in how the teacher structures the level of difficulty, provides scaffolding, delivers feedback, creates opportunities for success, and builds social support among students. This finding is consistent with recent evidence that physical activity and game-based interventions can improve children's motor competence, while also underscoring the importance of instructional design that is contextual and responsive to students' needs (Moon et al., 2024; Sun & Chen, 2024).

CONCLUSION

Based on the findings of this study, it can be concluded that the application of the Obstacle Course game in Physical Education, Sport, and Health (PJOK) instruction made a positive contribution to the development of gross motor skill and self-confidence among Grade IV students at SD Negeri 002 Rantau Pulung. The Obstacle Course activity provided a concrete, active, graduated, and challenging learning experience, giving students the opportunity to develop a range of movement skills in an integrated manner, including running, jumping, maintaining balance, changing direction, controlling body position, and coordinating several movements within a single activity sequence. Change in motor skill was evident in students' gradually becoming more coordinated, stable, adaptive, and independent in completing the course. Students who initially showed hesitation and required teacher assistance became increasingly able to complete obstacles with less assistance and to adjust their movement strategy to the varied challenges presented. This process indicates that a progressively designed game can create a meaningful practice experience for the development of students' motor competence.

In addition to its motor dimension, the application of the Obstacle Course also contributed to increased self-confidence. The experience of successfully completing obstacles provided

an experience of success that encouraged students to become more willing to try, less likely to give up when making mistakes, and more active in participating in instruction. Teacher support through demonstration, scaffolding, feedback, motivation, and the gradual withdrawal of assistance was an important factor in building students' independence. Peer support likewise created a safer, more collaborative learning atmosphere. The Obstacle Course can therefore be regarded as a PJOK instructional strategy that is oriented not only toward the development of physical ability, but also toward supporting students' psychosocial development. These findings affirm that game-based, adaptive PJOK instruction oriented toward experiences of success can serve as a relevant approach for developing both gross motor skill and self-confidence among elementary school students.

BIBLIOGRAPHY

Bao, R., Wade, L., Leahy, A. A., Owen, K. B., Hillman, C. H., Jaakkola, T., & Lubans, D. R. (2024). Associations between motor competence and executive functions in children and adolescents: A systematic review and meta-analysis. *Sports Medicine*, 54, 2141–2156. <https://doi.org/10.1007/s40279-024-02040-1>

Bunjamin, B. (2026). *[Lengkapi judul sumber yang digunakan]*. [Nama penerbit/jurnal].

Dudley, D., Mackenzie, E., Van Bergen, P., Cairney, J., & Barnett, L. (2022). What drives quality physical education? A systematic review and meta-analysis of learning and development effects from physical education-based interventions. *Frontiers in Psychology*, 13, 799330. <https://doi.org/10.3389/fpsyg.2022.799330>

Gunawan, I. (2013). *Metode penelitian kualitatif: Teori dan praktik*. Bumi Aksara.

Koolwijk, P., Hoeboer, J., Mombarg, R., Savelsbergh, G. J. P., & de Vries, S. (2024). Fundamental movement skill interventions in young children: A systematic review. *International Journal of Sport and Exercise Psychology*, 22(7), 1661–1683. <https://doi.org/10.1080/1612197X.2023.2210597>

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Moleong, L. J. (2018). *Metodologi penelitian kualitatif* (Edisi revisi). PT Remaja Rosdakarya.

Moon, J., Webster, C. A., Stodden, D. F., Brian, A., Beets, M., Mulvey, K. L., Egan, C. A., McIntosh, L. I. F., Merica, C. B., & Russ, L. (2024). Systematic review and meta-analysis of physical activity interventions to increase elementary children's motor competence: A comprehensive school physical activity program perspective. *BMC Public Health*, 24, 826. <https://doi.org/10.1186/s12889-024-18145-1>

Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

Sun, S., & Chen, C. (2024). The effect of sports game intervention on children's fundamental motor skills: A systematic review and meta-analysis. *Children*, 11(2), 254. <https://doi.org/10.3390/children11020254>

van der Veer, I. P. A., Verbecque, E., Rameckers, E. A. A., Bastiaenen, C. H. G., & Klingels, K. (2022). How can instructions and feedback with external focus be shaped to enhance motor learning in children? A systematic review. *PLOS ONE*, 17(8), e0264873.

<https://doi.org/10.1371/journal.pone.0264873>

Wang, L., & Wang, L. (2024). Relationships between motor skills and academic achievement in school-aged children and adolescents: A systematic review. *Children*, 11(3), 336. <https://doi.org/10.3390/children11030336>

Wang, X., & Zhou, B. (2024). Motor development-focused exercise training enhances gross motor skills more effectively than ordinary physical activity in healthy preschool children: An updated meta-analysis. *Frontiers in Public Health*, 12, 1414152. <https://doi.org/10.3389/fpubh.2024.1414152>

Zhang, D., Soh, K. G., Chan, Y. M., Feng, X., Bashir, M., & Xiao, W. (2024). Effect of functional training on fundamental motor skills among children: A systematic review. *Heliyon*, 10(23), e39531. <https://doi.org/10.1016/j.heliyon.2024.e39531>