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The Effect Of Music And Movement Learning On Fundamental Movement Skills And Learning Motivation In Physical Education Elementary School Phase B

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Abstract

Low Fundamental Movement Skills (FMS) and learning motivation are still challenges in learning physical education in elementary school. This condition has the potential to hinder the development of motor skills, student participation in physical activities, and the achievement of learning goals optimally. This study aims to analyze the influence of music and movement learning on Fundamental Movement Skills and learning motivation of Phase B elementary school students. The research sample amounted to 32 grade IV students who were divided into experimental groups and control groups. The research instruments include the Test of Gross Motor Development-2 (TGMD-2) to measure Fundamental Movement Skills and the Situational Motivation Scale (SIMS) to measure learning motivation. Data analysis was conducted using Wilcoxon, Mann–Whitney, and Independent Sample t-tests with the help of IBM SPSS Statistics. The results showed that learning music and movement had a significant influence on the improvement of Fundamental Movement Skills, especially in locomotor skills, while in manipulative skills there was no significant difference compared to conventional learning. In addition, learning music and movement also has a significant influence on increasing students' learning motivation. The integration of music with movement activities is able to increase student involvement, enthusiasm, and active participation during the physical education learning process. The findings of this study show that learning music and movement is an effective alternative

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learning strategy to improve the quality of physical education learning through the development of basic movement skills and strengthening the learning motivation of elementary school students.

Keywords: Music and Movement Learning; Fundamental Movement Skills; Learning Motivation; Physical Education.

INTRODUCTION

Motor development is one of the fundamental aspects in supporting children's physical, cognitive, social, and emotional growth. One of the main components in motor development is Fundamental Movement Skills (FMS), which are basic movement skills that are the foundation for an individual's involvement in various physical activities throughout life. Elementary school is a very important period to develop these skills because at this stage children are in the optimal phase of learning, mastering, and perfecting various basic movement patterns. Learning that is designed according to the characteristics of children's development will provide opportunities for students to develop motor skills optimally. Research by Gallahue, Ozmun, and Goodway (2012) shows that interventions provided from an early age are not only able to improve motor skills, but also contribute to children's cognitive and social development.

However, various studies show that the ability of Fundamental Movement Skills in elementary school students in Indonesia is still not optimally developed. Sofyan et al. (2022) reported that the basic motor skills of elementary school students are still in the medium category despite improving through the play approach. These findings are in line with the research of Haris et al. (2022) which shows that the locomotor FMS ability of elementary school students only reaches the "adequate" category with a percentage of around 40.80%. This condition shows that most students do not have an adequate foundation of movement skills so they need a more effective, interesting, and appropriate learning strategy in accordance with their developmental characteristics. On the other hand, the research of Gustian et al. (2023) proves that the use of field games is able to significantly improve FMS, while Wahidi et al. (2023) emphasized that FMS is the main foundation for the development of long-term motor skills. The low mastery of basic movement skills has the potential to hinder students' involvement in various physical activities, so learning innovations that are able to develop motor skills more optimally are needed.

The urgency of FMS development is further strengthened by the motor development model proposed by Stodden et al. (2008), which explains the reciprocal relationship between movement competence, physical activity, and physical fitness. Children who have low movement

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competence tend to avoid physical activity because they feel less confident in their abilities. This condition can cause proficiency barriers, which are skill barriers that cause children to be more passive, experience a decrease in physical activity levels, and risk of decreased fitness and weight gain. Logan et al. (2015) show that children who have good basic movement skills tend to be more physically active, able to maintain physical fitness, and have a greater chance of implementing a healthy lifestyle. Robinson et al. (2015) also stated that good movement competence not only impacts the physical aspect, but also increases motivation, participation in physical activity, and children's psychological well-being. Thus, the development of FMS is one of the important goals in physical education learning in elementary schools.

In addition to the problem of basic movement skills, learning motivation is also a factor that greatly determines the success of physical education learning. Motivation acts as a driver that influences student involvement in the learning process so that students are encouraged to actively participate, enjoy learning activities, and achieve optimal learning outcomes (Mulyasa, 2013). Research by Asih et al. (2023) shows that learning motivation has a significant influence on the learning outcomes of elementary school students, so motivation is not only a supporting factor, but also an important component in creating an effective and sustainable learning experience.

Facts in the field show that students' motivation to learn in participating in physical education learning is still relatively low. Nugraha (2023) found that as many as 30.8% of grade V students were in the very low and low motivation category in participating in PJOK learning. These results are strengthened by research by Rukmana (2024) which shows that students' learning motivation increases significantly after the implementation of play-based learning, thus indicating that the conventional learning approach is one of the causes of low learning motivation. Similar findings were also reported by Lesmawan et al. (2024), which showed that the use of innovative learning media was able to increase students' motivation to learn compared to before the intervention was carried out.

The low motivation to learn is inseparable from the quality of the learning process that takes place at school. Galeko and Lengmani (2025) explained that student motivation is influenced by the quality of teacher interaction, the learning environment, and the learning strategies used. When learning is monotonous, less varied, and less student involvement, motivation to learn tends to decrease. These findings are supported by Pratiwi and Asri (2020) who stated that learning that is still teacher-centered causes students to easily feel bored and lack enthusiasm for participating in PJOK activities. Therefore, a learning approach is needed that is able to create a

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more interesting, active, and fun learning atmosphere so that it can increase motivation while developing students' movement skills.

One of the approaches that is considered to have the potential to answer these two problems is the integration of music and movement in physical education learning. This approach combines elements of musicality, rhythm, and movement activities to produce a more enjoyable and meaningful learning experience. Music can build a positive learning atmosphere, increase focus, strengthen memory, and arouse students' enthusiasm for learning (DePorter et al., 2010). Meanwhile, movement activities provide opportunities for students to express themselves, develop motor skills, increase creativity, and train thinking and teamwork skills (Rachman, 2008). The combination of the two is believed to be able to increase students' active participation during the learning process so that physical education learning becomes more interesting and effective.

The approach to music and movement is also in accordance with the developmental characteristics of elementary school-age children who are basically happy to move, play, explore, and learn through hands-on experience. Movement provides space for students to express ideas, emotions, and feelings while developing cognitive, social, and emotional abilities (Fox & Schirrmacher, 2014). In addition, movement activities are able to develop kinesthetic intelligence and increase students' active involvement in the learning process (Gordon & Browne, 2007). On the other hand, rhythmic music that is appropriate for children's development is able to create a conducive learning atmosphere, increase concentration, strengthen memory, and build motivation to learn (DePorter, Reardon, & Singer-Nourie, 2010). This approach is also in line with the implementation of the Independent Curriculum which emphasizes active, contextual, fun, and student-centered learning.

Although various studies have proven the benefits of using music and movement in the learning process, its implementation in physical education learning in elementary schools is still relatively limited. Most studies have focused more on improving learning activities or affective aspects, while studies that simultaneously test the influence of music and movement learning on basic movement skills and learning motivation of elementary school students have not been widely studied. On the other hand, learning practices in the field are still dominated by conventional approaches that lack a varied, creative, and fun learning experience so that student involvement is not optimal. This condition shows that there is a need for a learning model that is able to improve motor skills while building student learning motivation at the same time.

Based on this description, this study aims to analyze the influence of music and movement learning on basic movement skills (Fundamental Movement Skills) and learning motivation of

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Phase B elementary school students. Learning strategies that are able to improve motor skills and learning motivation at the same time.

RESEARCH METHODS

This study uses a quantitative approach with a quasi experiment method through a Nonequivalent Control Group Design (NCGD) design. This design was chosen because the researchers did not randomize the subjects individually, but used pre-formed groups as experimental groups and control groups. Both groups were given a pretest and posttest to determine changes in basic movement skills (Fundamental Movement Skills) and learning motivation after treatment. The experimental group gained music and movement learning, while the control group followed conventional physical education learning without music integration. This design is widely used in educational research because it allows testing the effectiveness of a treatment on real-world learning conditions (Creswell & Creswell, 2023; McMillan, 2020).

The research population is all Phase B students at SDN Sekemandung 02, Cilengkrang District, Bandung Regency which totals 101 students. The research sample was determined using a purposive sampling technique based on the inclusion and exclusion criteria that have been set, so that 32 grade IV students who met the research requirements were obtained. The sample was then divided into experimental groups and control groups with a gender-balanced composition (stratified grouping), each consisting of 16 students (9 males and 7 females). The division was carried out to minimize selection bias and maintain the equality of the initial characteristics of the two groups.

Research instruments consist of two types. The Fundamental Movement Skills variable was measured using the Test of Gross Motor Development Second Edition (TGMD-2) developed by Ulrich (2000). This instrument assesses two components of basic movement skills, namely locomotor skills and manipulative skills, through observation of students' movement performance based on standard assessment criteria. Learning motivation variables were measured using the Situational Motivation Scale (SIMS) which has been adapted by Nugraha (2022). The SIMS instrument consists of 12 statements representing four dimensions of motivation, namely intrinsic motivation, identified regulation, external regulation, and motivation, using a five-level Likert scale. The instruments used have met the requirements for validity and reliability so that they are suitable for use in physical education research.

The implementation of the research began with the provision of a pretest to both groups to obtain preliminary data on basic movement skills and student learning motivation.

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Furthermore, the two groups followed the learning process for 12 meetings. The experimental group followed music and movement learning according to a treatment program that had been prepared, while the control group followed conventional physical education learning with the same material without the use of music. After all treatments were given, the two groups followed the posttest again using the same instrument to find out the changes in learning outcomes after the treatment.

Data were analyzed using descriptive and inferential statistics with the help of IBM SPSS Statistics version 21. The analysis began with a prerequisite test which included a normality test using Shapiro Wilk and a homogeneity test using Levene's Test. Hypothesis testing was then carried out using parametric and nonparametric statistical tests, namely the Independent Sample t-test, Wilcoxon, and Mann–Whitney, according to the results of the prerequisite test, at a significance level of 0.05.

RESULTS AND DISCUSSION

The Influence of Music and Movement Learning on Fundamental Movement Skills

Analysis of Fundamental Movement Skills (FMS) was carried out to determine the influence of music and movement learning on the improvement of basic movement skills of Phase B elementary school students. Data analysis began with the Wilcoxon test to determine the change in ability before and after treatment in each group, then continued with the Mann–Whitney test to compare the results of the posttest between the experimental group and the control group. The test results showed that both the experimental group and the control group experienced an improvement in FMS ability after the learning process. However, the magnitude of the increase in both groups showed differences that indicated the influence of music learning and movement treatments.

The results of the Wilcoxon test showed that in the experimental group there was a significant increase in locomotor skills with a significance value of 0.000 ($p < 0.05$) and a Z value of -3.819. These results show that there is a significant difference between pretest and posttest scores after students have learned music and movement. The same findings were also seen in manipulative skills with a significance value of 0.000 ($p < 0.05$) and a Z-value of -3.704, indicating an increase in manipulative ability after the treatment was administered. In the control group, a significant improvement was also found in both locomotor and manipulative skills. This condition shows that the learning process of physical education in general still contributes to the development of students' basic movement skills. However, the improvement that occurred in the

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experimental group showed a better tendency to gain learning experience through the integration of music and movement during the learning process.

Comparison of posttest results using the Mann–Whitney test showed that in the locomotor aspect there was a significant difference between the experimental group and the control group with a significance value of 0.001 ($p < 0.05$). These results show that music and movement learning has a more effective influence on improving locomotor skills compared to physical education learning that is carried out conventionally. On the other hand, in manipulative skills, a significance value of 0.299 ($p > 0.05$) was obtained, so that no significant difference was found between the two groups. The findings indicate that although both groups experienced improvements in manipulative skills, learning music and movement had not had a statistically distinct effecton these skills.

The findings of this study show that learning music and movement is able to improve students' basic movement skills, especially in the locomotor aspect. This improvement can be explained through learning characteristics that integrate physical activity with the rhythm of music so as to provide a more active, fun, and meaningful learning experience. During the learning process, students not only perform various basic movement forms, but also adjust the movements to the tempo and rhythm of the music. This condition helps students maintain movement coordination, regulate rhythm, and increase concentration when carrying out learning activities. As a result, students are easier to understand the movement patterns learned and are encouraged to repeat the movements more consistently than conventional learning.

The results of this study are in line with the Dynamic Systems Theory proposed by Thelen and Smith (1994), which explains that the development of movement skills is the result of the interaction between individual characteristics, the learning environment, and the given movement tasks. In this study, music is part of the learning environment that is able to provide rhythmic stimulus so as to help students coordinate body movements more effectively. Learning combined with music creates a more conducive learning environment to explore various movement patterns so that the learning process takes place more actively and enjoyably. These findings also support the theory of Dalcroze (1921) who explains that musical rhythm is able to organize body movements through kinesthetic experiences. Through a regular rhythm, students get help in controlling the tempo of movements so that movement coordination develops better. Terry et al. (2020) also explain that music contributes to improving movement synchronization, body coordination, and performance quality during physical activity.

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The improvement in locomotor abilities obtained by the experimental group also reinforces the findings of Logan et al. (2018) who stated that systematically designed movement experiences contribute to the development of basic motor skills. Barnett et al. (2021) explain that structured physical activity provides opportunities for children to develop coordination, balance, and movement control more optimally. Lubans et al. (2022) also stated that active involvement in physical activity has a positive impact on the development of children's motor competence. In the context of physical education in Indonesia, Suherman (2020) emphasized that active and fun learning is able to increase student participation so that the learning process takes place more effectively. These findings are strengthened by Julian et al. (2024) who show that movement and song activities contribute to improving children's gross motor skills, while Wahidi et al. (2023) emphasized that Fundamental Movement Skills are an important foundation for the development of students' motor skills.

The advantages of music and movement learning in improving locomotor abilities can also be explained through the characteristics of the activities applied during treatment. Most learning activities involve walking, running, jumping, jumping, moving, and moving to the rhythm of music. These activities directly provide stimulus to the locomotor components so that students have the opportunity to do repetitive exercises in a fun atmosphere. The repetition of movements in pleasurable conditions is one of the important factors in the formation of motor skills. Vazou et al. (2019) explain that the use of music in physical activity increases student engagement, attention, and focus. Pesce et al. (2021) also stated that pleasurable physical activity is able to improve movement coordination. This opinion is strengthened by Kiram (2019) who explains that mastering motor skills requires repetitive and structured training. Holfelder and Schott (2022) added that movement exercises that are carried out consistently contribute to the improvement of basic motor skills, while Ma'mun (2021) emphasized that varied and fun movement activities are one of the effective strategies in improving students' basic movement skills.

Nonetheless, the study shows that learning music and movement has not provided a significant difference to manipulative skills. These results suggest that improving manipulative skills requires more specific learning strategies than locomotor skills. Manipulative activities such as throwing, catching, hitting, or kicking involve more complex eye and hand and eye and foot coordination, requiring more intensive technique practice and repetitive use of objects. Goodway et al. (2019) explain that manipulative skills develop optimally when students get more specific and continuous training opportunities. Logan et al. (2015) also stated that each component of

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Fundamental Movement Skills has different developmental characteristics so that it requires a different learning approach.

The results of this study are also in line with Stodden et al. (2021) who explain that the development of manipulative skills takes place through a more complex training process than locomotor skills. Brian et al. (2019) stated that visual-motor coordination is a major factor in the success of manipulative skills. Robinson et al. (2015) added that motor development is greatly influenced by the frequency of exercise and the opportunity for children to practice various forms of movement repeatedly. In the context of physical education in Indonesia, Mahendra (2020) explained that manipulative skills require a more structured and practice-oriented learning model. This opinion is reinforced by Zulfikar et al. (2021), Mahfud and Yuliandra (2020), and Pradipta et al. (2023) who state that the development of manipulative skills requires a more specific learning approach so that ability improvement can be achieved optimally.

Overall, the results of the study show that learning music and movement has a positive influence on improving Fundamental Movement Skills, especially in the locomotor aspect. The integration of music with movement activities is able to create a more engaging learning experience, increase student involvement during learning, and provide wider opportunities for students to perform movement repetition effectively. These findings confirm that music and movement learning can be used as an alternative physical education learning strategy in Phase B elementary school students, especially to develop locomotor skills. As for improving manipulative skills, it is necessary to develop a learning model that provides a portion of technical training and the use of media or tools more intensively so that all components of Fundamental Movement Skills can develop in a balanced manner.

The Effect of Music and Movement Learning on Learning Motivation

Learning motivation is one of the important factors that determine the success of the physical education learning process. In this study, learning motivation was measured using the Situational Motivation Scale (SIMS) to determine the effect of the application of music and movement learning on student motivation during physical education learning. Data analysis was carried out using the Independent Sample t-Test after meeting the prerequisite test. The results of the analysis showed that the significance value (Sig. 2-tailed) was 0.000 ($p < 0.05$), so there was a significant difference between the experimental group and the control group. The findings show that learning music and movement have a significant influence on students' learning motivation. Students who participated in learning with the integration of music and movement showed higher

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learning motivation than students who participated in conventional physical education learning. Thus, the second hypothesis (H_2) which states that there is an influence of music and movement learning on students' learning motivation is acceptable.

The results of the study show that the use of music combined with movement activities is able to create a more interesting, fun, and interactive learning atmosphere. This condition encourages students to be actively involved in every stage of learning, starting from the introductory activities, the core, to the conclusion. During the learning process, students seem more enthusiastic about following the teacher's instructions, are more courageous to do every form of movement, and show a high interest in completing each given activity. This pleasant learning atmosphere provides a different learning experience compared to physical education learning that students usually receive, so that it can increase attention, participation, and enjoyment during learning.

The increase in learning motivation can be explained through the characteristics of learning music and movement that combine elements of musicality with physical activity. Music serves as a stimulus that is able to build a positive learning atmosphere, while movement activities provide students with the opportunity to learn through hands-on experience. The combination of these two elements makes learning no longer centered on the teacher, but more oriented to student activities. As a result, students become more active in exploring their movement skills, more confident when doing various forms of physical activity, and have a greater desire to participate during the learning process. These conditions show that fun learning not only increases student engagement, but is also able to foster better learning motivation.

The findings of this study are in line with the Self-Determination Theory put forward by Deci and Ryan (2000), which explains that learning motivation will develop optimally if the basic psychological needs of individuals, namely competence, autonomy, and relatedness, can be met. In this study, learning music and movement provides opportunities for students to move freely according to their abilities, collaborate with friends, and feel success when they are able to complete various movement activities. This experience strengthens students' perception of competence while increasing confidence in participating in physical education learning. In addition, a more interactive learning atmosphere also strengthens social relationships between students so that the need for social connectedness can be met. Therefore, learning music and movement is able to increase students' intrinsic motivation while participating in the learning process. These findings are supported by Standage et al. (2021) who state that a supportive

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learning environment is able to increase intrinsic motivation and student involvement in the learning process.

The results of this study also strengthen the opinion of Sardiman (2018) who stated that learning motivation will increase when students feel happy, interested, and actively involved in the learning process. Music and movement learning provides a different learning experience because students not only receive instruction from the teacher, but also directly perform various movement activities combined with the rhythm of music. This situation makes it easier for students to concentrate, enjoy the learning process more, and be more motivated to follow the entire learning series until it is completed. In line with that, Ntoumanis et al. (2021) explained that students' active involvement during the learning process is one of the factors that affect increasing learning motivation. In the context of education in Indonesia, Uno (2021) also emphasized that the active involvement of students is one of the main indicators of learning success. These findings are strengthened by research by Firmansyah et al. (2021) which shows that engaging learning can significantly increase students' interest in learning. Asih et al. (2023) also explained that learning motivation has a close relationship with the learning outcomes of elementary school students, while Andriani and Rasto (2019) emphasized that motivation is the main factor that determines the success of the learning process.

The use of music in learning also contributes to improving the quality of students' learning experience. Music is able to create a more relaxed atmosphere, reduce boredom, and build a spirit of learning while participating in physical education activities. When students feel comfortable with the learning environment, they tend to be more courageous to try different forms of movement, are not afraid to make mistakes, and are more active in interacting with teachers and peers. Thus, the learning process takes place more dynamically and provides a more meaningful learning experience.

The findings are supported by Vazou et al. (2019) who explain that the use of music in physical activity is able to increase student enjoyment, attention, and participation. Pesce et al. (2021) also stated that a positive learning atmosphere has an influence on increasing student involvement during learning. Furthermore, Hagger and Chatzisarantis (2022) explain that high motivation will encourage students to actively participate in every learning activity. In the context of physical education in Indonesia, Husdarta (2020) stated that fun learning plays an important role in increasing student participation in physical activity. These findings are strengthened by Fikri et al. (2024) who show that learning motivation makes a significant contribution to physical education learning outcomes.

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In addition to being influenced by learning characteristics, the increase in learning motivation in the experimental group is also suspected to be influenced by the presence of novelty elements in the learning process. Most students have never participated in physical education learning that integrates music with movement activities so that curiosity, enthusiasm, and enthusiasm arise higher than the learning they usually follow. The new learning experience gives a positive impression on physical education subjects so that students are more motivated to follow the entire learning series. When students have a pleasant learning experience, their perception of physical education learning also becomes more positive, so that learning motivation increases naturally during the learning process.

These findings are reinforced by DePorter, Reardon, and Singer-Nourie (2010) who explain that music is able to create a positive learning atmosphere through increased attention, learning readiness, and comfort of students. Music not only serves as an accompaniment to activities, but is also able to influence the emotional state of students so that they are better prepared to receive learning. Hagger and Chatzisarantis (2022) also explain that a fun learning environment contributes to increased motivation and student involvement in learning activities. Thus, the use of music in physical education not only provides benefits to the affective aspect, but also strengthens the quality of learning interactions which ultimately has an impact on increasing student motivation.

Overall, the results of this study show that music and movement learning have a positive influence on the learning motivation of elementary school students in Phase B. The integration of music with movement activities is able to increase students' interest, attention, involvement, and active participation during the physical education learning process. These findings show that learning that is designed in an innovative and fun way not only supports the development of movement skills, but is also able to meet the psychological needs of students so that learning motivation increases optimally. Therefore, learning music and movement can be used as an alternative learning model of physical education that is effective in improving the quality of learning as a whole, both from the motor and affective aspects. The results of this study also strengthen various previous studies that affirm that learning innovations that integrate physical activity, elements of musicality, and fun learning experiences are able to increase learning motivation and student involvement in the learning process of physical education.

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CONCLUSION

Based on the results of the research on the influence of music and movement learning on the fundamental movement skills and learning motivation of elementary school students, based on the results of the hypothesis test, it can be concluded that music and movement learning is able to improve the locomotor skills of elementary school students. The application of music and movement learning provides an active, fun, and rhythm-involved learning experience so that students are easier to develop basic movement skills, especially in locomotor skills.

However, based on the results of the hypothesis test, it was also concluded that music and movement learning did not have a significant influence on the manipulative movement skills of elementary school students. This shows that manipulative skills require more specific and structured training than locomotor skills, so the approach to learning music and movement is not fully optimal in improving these skills.

In addition, based on the results of the hypothesis test, it was also concluded that learning music and movement was able to increase the learning motivation of elementary school students. This shows that learning that is packaged in an interesting and fun way can increase student involvement, interest, and participation in physical education learning.

Thus, it can be concluded that music and movement learning has an effect on improving fundamental movement skills, especially locomotor skills, and has a significant effect on increasing the learning motivation of elementary school students. Therefore, the hypothesis in this study is acceptable, namely that music and movement learning affects fundamental movement skills and student learning motivation.

REFERENCES

Andriani, R., & Rasto. (2019). Motivasi belajar sebagai determinan hasil belajar siswa. Jurnal Pendidikan Manajemen Perkantoran, 4(1), 80–86. https://doi.org/10.17509/jpm.v4i1.14958

Asih, P. N., Wijaya, D., & Kurniawan, B. (2023). Pengaruh motivasi belajar terhadap hasil belajar siswa sekolah dasar. Jurnal Pendidikan Dasar Nusantara, 9(2), 150–158.

Barnett, L. M., Webster, E. K., Hulteen, R. M., De Meester, A., & Valentini, N. C. (2021). Through the looking glass: A systematic review of longitudinal evidence, providing new insight for motor competence and health. Sports Medicine, 51(4), 875–920.

Creswell, J. W., & Creswell, J. D. (2023). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). SAGE Publications.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-Share Alike 4.0 International License

Dalcroze, É. J. (1921). Rhythm, music and education. London: Dalcroze Society.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

DePorter, B., Reardon, M., & Singer-Nourie, S. (2010). Quantum teaching: Mempraktikkan quantum learning di ruang-ruang kelas. Bandung: Kaifa.

Fikri, M., Nofrizal, D., Nugroho, A., & Lubis, H. Y. (2024). Impact of learning motivation and physical condition on physical education learning outcomes in junior high school students aged 13–15 years: An analysis study. INSPIREE: Indonesian Sport Innovation Review, 5(3), 122–138. https://doi.org/10.53905/xk8yd462

Goodway, J. D., Ozmun, J. C., & Gallahue, D. L. (2019). Understanding motor development: Infants, children, adolescents, adults (8th ed.). Jones & Bartlett Learning.

Hagger, M. S., & Chatzisarantis, N. L. D. (2022). Self-determination theory in health behavior: A systematic review. Health Psychology Review, 16(2), 1–25.

Holfelder, B., & Schott, N. (2022). Relationship of fundamental movement skills and physical activity in children and adolescents: A systematic review. Psychology of Sport and Exercise, 58, 102063.

Husdarta. (2020). Manajemen pendidikan jasmani. Bandung: Alfabeta.

Julian, K., Fitriani, Y., & Nuroniah, P. (2024). Peran aktivitas gerak dan lagu sebagai strategi pengembangan kemampuan motorik kasar anak usia 5–6 tahun. Murhum: Jurnal Pendidikan Anak Usia Dini, 5(2), 587–602. https://doi.org/10.37985/murhum.v5i2.925

Kiram, P. H. (2019). Belajar keterampilan motorik. Jakarta: Prenadamedia Group.

Logan, S. W., Robinson, L. E., Wilson, A. E., & Lucas, W. A. (2015). Motor competence and its effect on positive developmental trajectories of health. Sports Medicine, 45(9), 1273–1284. https://doi.org/10.1007/s40279-015-0351-6

Logan, S. W., Robinson, L. E., Wilson, A. E., & Lucas, W. A. (2018). Getting the fundamentals of movement: A meta-analysis of the effectiveness of motor skill interventions in children. Child: Care, Health and Development, 44(4), 1–15.

Lubans, D. R., Morgan, P. J., Cliff, D. P., Barnett, L. M., & Okely, A. D. (2022). Fundamental movement skills in children and adolescents: Review of associated health benefits. Sports Medicine, 52(1), 1–16.

Ma'mun, A. (2021). Pembelajaran pendidikan jasmani di sekolah. Bandung: UPI Press.

Mahendra, A. (2020). Pengembangan pembelajaran pendidikan jasmani. Bandung: UPI Press.

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Ntoumanis, N., Standage, M., & Duda, J. L. (2021). Motivation in physical education and school sport: Contemporary perspectives. Journal of Educational Psychology.

Nugraha, I., Wibowo, R., & Putri, W. (2022). Uji validitas dan reliabilitas Situational Motivation Scale (SIMS) dalam pendidikan jasmani untuk siswa sekolah dasar. Multilateral: Jurnal Pendidikan Jasmani dan Olahraga, 21(3), 197–209.

Pesce, C., Vazou, S., & Ben-Soussan, T. D. (2021). Effects of physical activity on cognitive development in children: A systematic review. Journal of Science and Medicine in Sport, 24(6), 1–10.

Standage, M., Duda, J. L., & Ntoumanis, N. (2021). Students' motivational processes and their relationship to teacher behaviors in physical education. Journal of Educational Psychology, 113(2), 1–15.

Stodden, D. F., Goodway, J. D., Langendorfer, S. J., Roberton, M. A., Rudisill, M. E., Garcia, C., & Garcia, L. E. (2008). A developmental perspective on the role of motor skill competence in physical activity. Quest, 60(2), 290–306. https://doi.org/10.1080/00336297.2008.10483582

Suherman, A. (2020). Model pembelajaran pendidikan jasmani. Bandung: UPI Press.

Terry, P. C., Karageorghis, C. I., Curran, M. L., Martin, O. V., & Parsons-Smith, R. L. (2020). Effects of music in exercise and sport: A meta-analytic review. Psychological Bulletin, 146(2), 91–117. https://doi.org/10.1037/bul0000216

Thelen, E., & Smith, L. B. (1994). A dynamic systems approach to the development of cognition and action. MIT Press.

Ulrich, D. A. (2000). Test of Gross Motor Development (2nd ed.). Pro-Ed.

Uno, H. B. (2021). Teori motivasi dan pengukurannya. Jakarta: Bumi Aksara.

Vazou, S., Pesce, C., Lakes, K., & Smiley-Oyen, A. (2019). More than one road leads to Rome: A narrative review of physical activity and cognition. International Journal of Sport and Exercise Psychology, 17(2), 153–178.

Wahidi, R., Widyastuti, N., & Ramadhan, F. (2023). Fundamental movement skills sebagai dasar perkembangan motor ability peserta didik. Jurnal Olahraga dan Kesehatan Indonesia, 3(2), 112–120.

Zulfikar, M., Hasyim, A. H., Ikadarny, I., & Anwar, N. I. A. (2021). Penguasaan keterampilan gerak dasar siswa sekolah dasar. Jurnal Sport Science, 11(1), 27–36.

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