

Level of Learning Motivation in Physical Education (An Empirical Study of Students at Keposong 2 Public Elementary School)

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ABSTRACT

This study aims to describe the level of student learning motivation in Physical Education lessons at SD Negeri 2 Keposong and to examine the tendencies of intrinsic and extrinsic motivation among students. This study is based on the hypothesis that students have a high level of motivation to learn Physical Education. The research method used was a descriptive quantitative approach with a survey method. The study subjects included all 27 fourth and fifth grade students at SD Negeri 2 Keposong, selected using a total sampling technique due to the relatively small population size. Data collection was conducted using a learning motivation questionnaire structured around two main aspects: intrinsic motivation and extrinsic motivation, using a five-level Likert scale. Furthermore, field observations were conducted to provide empirical context for student learning behavior during the Physical Education learning process. The data obtained were analyzed using descriptive statistics in percentage form to objectively illustrate the distribution of student learning motivation levels. The results showed that students' level of motivation to learn Physical Education was in the very high category, with an average score of 90.59. The distribution of student responses was dominated by strongly agree categories at 61.48% and agree at 30.37%, while neutral responses were at 7.96%. Negative responses were almost non-existent, with strongly disagree categories at only 0.19% and disagree at 0%. These findings indicate that students generally have positive attitudes, high interest, and readiness to actively participate in Physical Education learning. The implications of this study emphasize the importance of maintaining and managing learning motivation that has reached a very high category through the implementation of varied, contextual learning strategies that are appropriate to the developmental characteristics of elementary school students.

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A. Conception and design of the study;

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INTRODUCTION

Education is a conscious and planned process to create a learning environment that allows students to optimally develop their potential, including cognitive, affective, and psychomotor aspects (Pratikto & Warthadi, 2021). In the context of elementary education, Physical Education (PJOK) plays a strategic role as a vehicle for building the foundation of

movement skills, active lifestyle habits, and social values and character in students from an early age (Wulandari & Jariono, 2022; Syafruddin et al., 2022). Physical Education focuses not only on mastering motor skills but also on developing motivation, a positive attitude toward physical activity, and readiness for lifelong learning (Bailey et al., 2019; Hastie et al., 2020).

However, the practice of Physical Education in elementary schools still faces various challenges, particularly related to low and varying student motivation. Initial observations at SD Negeri 2 Keposong indicate that not all students are actively involved in PJOK learning. Some students appear passive, easily bored, lack enthusiasm for movement activities, and only minimally engage during learning. This condition has the potential to hinder the development of basic motor skills, understanding of movement concepts, and the formation of positive attitudes toward physical activity and sports (Saraswati et al., 2023; Hakim & Ishak, 2025).

Learning motivation is a key psychological factor that determines the quality of student engagement in the learning process. In Physical Education, motivation plays a key role in driving students' active participation in physical activities, games, and sports (Jariono & Subekti, 2020). Low learning motivation not only impacts learning outcomes but also lowers students' interest in an active and healthy lifestyle in the future (Ntoumanis et al., 2021). Therefore, a comprehensive understanding of the level and characteristics of student learning motivation in Physical Education learning is an urgent need for teachers and elementary schools.

Scientific studies over the past decade have shown that learning motivation in Physical Education is influenced by the interaction of intrinsic and extrinsic factors. Intrinsic motivation encompasses interest, enjoyment, personal satisfaction, and an internal drive to move, while extrinsic motivation relates to teacher support, the learning environment, rewards, and social influence from peers (Ryan & Deci, 2020; Saraswati et al., 2023). Research based on Self-Determination Theory (SDT) confirms that fulfilling basic psychological needs autonomy, competence, and relatedness is a crucial prerequisite for the growth of sustained learning motivation in Physical Education (Ntoumanis et al., 2021; Van den Berghe et al., 2019).

Several national and international studies report that innovative learning approaches, particularly those based on games and collaborative activities, are effective in increasing the motivation and participation of elementary school students (Ginanjari et al., 2024; Hastie et al., 2020). The implementation of relay games, small-sided games, and cooperative learning models has been proven to create a fun, challenging learning environment that aligns with the developmental characteristics of elementary school-aged children (Mubarak et al., 2025; Kirk, 2019). Classroom action research by As-Safa et al. (2025) at Bawang 1 Elementary School in Kediri showed a significant increase in student learning motivation after implementing relay games, with the average motivation increasing from moderate to high.

Furthermore, quantitative descriptive studies are also emerging to capture the general state of student learning motivation. Research by Juniarsih et al. (2021) and Sugiharto (2024) reported that student motivation levels in Physical Education tend to be influenced by variations in learning methods, teacher competence, and the availability of facilities and infrastructure. International studies by Owen et al. (2022) and Standage et al. (2020) emphasize the importance of mapping learning motivation as a basis for pedagogical decision-making in evidence-based Physical Education practice.

Although extensive research on learning motivation in Physical Education has been conducted, most previous studies have focused on testing the effectiveness of specific interventions or learning models, such as relay games, TGFU, or cooperative learning. This approach results in limited information regarding students' factual and authentic learning motivation before the intervention is implemented (Sugiharto, 2024; Ginanjar et al., 2024).

Furthermore, many studies still use limited samples and specific school contexts, resulting in relatively low generalizability of the research results. The motivation measurement instruments used also tend to focus on the final outcomes of the intervention, without separately and comprehensively mapping the dimensions of students' intrinsic and extrinsic motivation (Juniarsih et al., 2021; Owen et al., 2022). As a result, there is a gap between theoretical frameworks for learning motivation particularly those based on SDT and the actual empirical conditions in elementary schools, particularly in non-urban areas.

Thus, research is still needed that specifically describes the level of learning motivation of Physical Education students quantitatively, based on intrinsic and extrinsic indicators, as an initial basis for planning learning that is contextual and relevant to the needs of students.

Based on these research problems and gaps, the purpose of this study is to quantitatively describe the level of student learning motivation in Physical Education (PE) lessons at SD Negeri 2 Keposong, with an emphasis on intrinsic and extrinsic motivation indicators. The indicators examined include persistence in participating in physical education activities, interest in PE lessons, active participation, social encouragement from peers, and support from the learning environment and teachers.

The novelty of this study lies in its focus on mapping learning motivation in authentic settings prior to learning interventions, rather than on testing the effectiveness of a specific model or strategy. This approach provides an important empirical contribution in bridging learning motivation theory with the practice of PE in elementary schools. The results are expected to serve as baseline data for teachers, schools, and researchers in designing more innovative, enjoyable, and student-centered PE learning strategies, as well as supporting the development of evidence-based PE policies.

METHODS

This study employed a descriptive quantitative approach with a survey method, aiming to objectively describe students' levels of learning motivation in Physical Education. This descriptive quantitative approach was chosen because it is appropriate for capturing actual psychopedagogical phenomena in the field without manipulating variables. It also allows for the presentation of data in numerical and percentage form, which is easy to analyze and interpret (Creswell & Creswell, 2018; Sugiyono, 2022). Survey methods are also widely used in physical education research to systematically and efficiently assess students' attitudes, interests, and motivation (Fraenkel et al., 2019; Jariono et al., 2023).

This study was conducted at SD Negeri 2 Keposong, Boyolali District, Central Java Province, during the odd semester of the 2025/2026 academic year. The study subjects

included all 27 fourth and fifth grade students. The sampling technique used was total sampling, which is a sampling technique that utilizes the entire population as the research sample. This technique is considered appropriate because the population is relatively small, allowing all subjects to be included to obtain a more accurate and representative picture of the situation (Sugiyono, 2022; Etikan et al., 2016). The use of total sampling is also recommended in descriptive educational research aimed at mapping empirical conditions in specific educational units (Arikunto, 2020).

The main instrument in this study was a Physical Education learning motivation questionnaire, developed based on a theoretical framework of learning motivation, specifically intrinsic and extrinsic motivation. The selection of these two aspects refers to Self-Determination Theory (SDT), which asserts that student learning motivation is influenced by internal drive and external environmental support (Ryan & Deci, 2020; Ntoumanis et al., 2021). The intrinsic motivation aspect in the questionnaire includes indicators of student persistence, tenacity, interest, and attention in participating in Physical Education activities. Meanwhile, extrinsic motivational aspects include indicators of teacher support, the availability of facilities and infrastructure, and the learning methods implemented during the learning process (Saraswati et al., 2023; Ginanjar et al., 2024).

Each item in the questionnaire was structured using a five-level Likert scale: strongly agree (score 5), agree (score 4), neutral (score 3), disagree (score 2), and strongly disagree (score 1). The Likert scale was chosen because it is effective in measuring student attitudes and motivation and has been widely used and validated in physical education and educational psychology research (Likert, 1932; Boone & Boone, 2012). The questionnaire was distributed directly to students with the guidance of a Physical Education teacher to ensure proper understanding of each statement and minimize errors, especially considering the characteristics of elementary school students (Arikunto, 2020; Wulandari & Jariono, 2022).

In addition to the questionnaire, this research was also supported by field observations conducted during the Physical Education learning process. The observations aimed to provide empirical context for student behavior, such as levels of activity, enthusiasm, and engagement in movement activities. The use of observations as supporting data aligns with educational research recommendations that emphasize the importance of data triangulation to increase the validity of descriptive research findings (Cohen et al., 2018; Sugiharto, 2024). The data obtained were analyzed using descriptive statistics with the percentage formula:

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

Where P is the percentage, F is the frequency of respondents in a particular category, and N is the total number of respondents. Percentage analysis is used to describe the distribution of students' learning motivation levels quantitatively and easily understood (Sudijono, 2021). The analysis results were then classified into five categories of learning motivation levels: very high, high, moderate, low, and very low, in accordance with the guidelines for interpreting descriptive data in educational research (Sugiyono, 2022).

Through this analysis procedure, the research is expected to provide a comprehensive picture of students' learning motivation in Physical Education lessons. The findings of this study are expected to provide an empirical basis for teachers and schools in designing more engaging, interactive learning strategies that are oriented toward increasing student active participation in physical education activities in elementary schools.

RESULTS AND DISCUSSION

Result

This section presents the results of a descriptive analysis of the level of motivation to learn Physical Education (PJOK) among students at SD Negeri 2 Keposong. Data were obtained from 27 fourth and fifth grade students completing a five-level Likert-scale questionnaire with 20 items (scored 1–5). The total score for each respondent was the sum of all items, resulting in a theoretical score range of 20–100.

Descriptive Statistics of Physical Education Learning Motivation Scores

To provide a general overview of students' motivation to learn Physical Education (PJOK), the initial step was to calculate descriptive statistics on the total score. A summary of the results is presented in Table 1.

Table 1.

Descriptive Statistics of Total Score for Physical Education Learning Motivation

Components	Value
N (students)	27
Minimum Score	83
Maximum Score	98
Mean	90,59
Standard Deviation	4,09

Based on Table 1, students' motivation scores for learning Physical Education ranged from 83 to 98, with an average of 90.59 and a median of 91. This average value indicates that students generally scored close to the maximum score (100). Furthermore, the standard deviation of 4.09 indicates that there was relatively little variation between students, so motivation scores tended to cluster in the high range.

In line with the interpretation criteria used in this study, this average total score places the motivation to learn Physical Education among students at SD Negeri 2 Keposong in the "very high" category. In other words, the main findings of the study indicate that students generally demonstrate a strong drive to learn in participating in Physical Education lessons.

Distribution of Responses Based on a Likert Scale

After examining the overall picture through the total score, the analysis continued with the pattern of student responses to all statement items. This analysis aims to clarify the tendencies of students' answer choices on the Likert scale, so that the results not only indicate the "high-low" scores, but also reveal the dominant response

characteristics. A summary of all student responses (27 respondents × 20 items = 540 responses) is presented in Table 2.

Table 2.

Overall distribution of responses to the Physical Education learning motivation questionnaire

Answer Categories	Frequency (people)	Percentage (%)
Strongly disagree (1)	1	0,19
Disagree (2)	0	0,00
Neutral (3)	43	7,96
Agree (4)	164	30,37
Strongly agree (5)	332	61,48

Based on Table 2, student responses were dominated by the "Strongly Agree" (61.48%) and "Agree" (30.37%) categories. Meanwhile, "Neutral" responses were at 7.96%, and negative responses were virtually non-existent: there were no "Disagree" responses (0%) and only one "Strongly Disagree" response (0.19%) out of a total of 540 responses.

This finding reinforces the previous results on the total score: the high motivation scores were not due to a single item, but rather to the overall tendency of student responses to strongly agree with the motivational statements regarding learning Physical Education. Thus, the research results consistently indicate that the motivation to learn Physical Education among students at SD Negeri 2 Keposong is at a very high level, both in terms of the total score and the response patterns on the Likert scale.

Discussion

The results of the study indicate that the level of motivation to learn Physical Education among students at Keposong 2 Public Elementary School is in the very high category, as indicated by an average motivation score of 90.59, approaching the theoretical maximum score. The predominance of questionnaire responses in the strongly agree and agree categories indicates that the majority of students have a strong drive to learn, both in terms of interest, readiness to participate, and a positive attitude toward learning Physical Education. These findings demonstrate that students generally view Physical Education as an interesting, enjoyable, and relevant subject, thus fostering optimal learning engagement.

This high level of learning motivation can be understood as a reflection of the characteristics of Physical Education learning in elementary schools, which emphasizes physical activity, play, and hands-on learning experiences (learning by doing). Several studies confirm that exploratory and enjoyable physical activities are highly aligned with the cognitive and psychosocial developmental stages of elementary school-aged students, thus fostering enjoyment, enthusiasm, and active engagement in learning (Bailey et al., 2019; Kirk, 2019). In the context of Self-Determination Theory, this condition indicates the fulfillment of students' basic psychological needs, particularly a sense of competence and connectedness, which contributes to the emergence of strong intrinsic motivation (Ryan & Deci, 2020; Ntoumanis et al., 2021).

High learning motivation also impacts students' readiness to follow teacher instructions, their courage to try various movement activities, and their persistence in

completing learning tasks. Previous research shows that students with high levels of motivation tend to demonstrate active participation, persistence in physical activity, and a positive attitude toward Physical Education learning (Standage et al., 2020; Jariono & Subekti, 2020). Thus, learning motivation plays a key supporting factor in achieving Physical Education learning objectives, both in terms of motor skills, attitudes, and active lifestyle habits.

The findings of this study align with those of As-Safa et al. (2025) and Mubarak et al. (2025) reported that Physical Education lessons designed to be engaging and enjoyable, particularly through a playful approach, significantly increased students' learning motivation. Although this study did not employ any specific treatment or learning interventions, the high level of student learning motivation at SD Negeri 2 Keposong can be seen as an indication that the ongoing Physical Education learning practices were conducted conducive and supported the growth of students' interest and positive attitudes. This reinforces the view that learning quality is not always determined by the presence of formal interventions, but also by teachers' consistency in creating a safe, enjoyable, and participatory learning environment (Hastie et al., 2020).

Analysis of the distribution of questionnaire responses further corroborates these findings. The predominance of positive responses indicates that students' learning motivation is relatively consistent across the various indicators measured. Student motivation is not focused solely on one specific aspect but encompasses dimensions of enjoyment of learning, willingness to move, and interest in physical activity in general. These results align with research by Mustaqim et al. (2025) stated that motivation to learn Physical Education is high when students have a positive perception of the activities they undertake and feel they are meaningful to them. In other words, student learning motivation is formed holistically through positive and repeated learning experiences.

However, field observations indicate that although quantitatively, student learning motivation is very high, there is still variation in learning behavior among students in certain situations. Some students appear less enthusiastic or show signs of boredom during certain learning moments. This finding indicates that learning motivation is dynamic, not static. Sugiharto (2024) emphasized that motivation to learn Physical Education is influenced by the interaction of intrinsic factors—such as interest and enjoyment of movement—and extrinsic factors, including teacher support, peer support, the availability of facilities and infrastructure, and a variety of learning methods. Therefore, fluctuations in student learning behavior are a normal phenomenon and need to be managed pedagogically.

The congruence of these research findings is also evident in the research by Rewa et al. (2024), which showed that motivation to learn Physical Education tends to increase when learning is tailored to student characteristics and the school context. In this study, high student motivation can be viewed as a positive baseline, reflecting that Physical Education learning is progressing in the right direction, even without specific interventions. This situation provides a strategic opportunity for teachers to develop more varied and adaptive learning innovations to maintain and optimize student motivation.

The practical implication of these findings is that Physical Education teachers should not only focus on increasing learning motivation but also on strategies to maintain and manage already high motivation so that it remains stable and equitable across all students. Varying learning methods, using challenging yet enjoyable games and activities, providing positive feedback, and classroom management that encourages active participation by all students are important steps to prevent boredom and passive behavior (Ginanjar et al., 2024; Ntoumanis et al., 2021). Thus, the very high motivation to learn Physical Education is not only reflected in the questionnaire results, but can also be consistently manifested in the active involvement of students during the learning process.

CONCLUSION

Based on the research results, the level of motivation to learn Physical Education among students at Keposong 2 Public Elementary School is in the very high category, as reflected by the average motivation score approaching the maximum and the predominance of positive responses on the questionnaire. This condition indicates that students generally have a strong drive to learn in Physical Education lessons, both in terms of interest, readiness to participate, and positive attitudes toward physical activity. This high level of motivation reflects the integration of internal student factors, such as enjoyment of movement and interest in Physical Education lessons, with external factors, such as the teacher's learning approach, classroom atmosphere, and school environmental support, which encourage active student engagement in learning.

These research results reinforce the understanding that the success of Physical Education learning in elementary schools is determined not only by the material or physical activities alone, but also by the learning environment's ability to foster and maintain student motivation. Learning that is appropriate to the developmental characteristics of students, accompanied by a variety of activities, positive interactions, and supportive classroom management plays a crucial role in creating a meaningful and enjoyable Physical Education learning experience for students. The implications of these findings indicate that efforts to develop Physical Education learning should be directed not only at improving learning outcomes but also at sustainably managing student motivation. Physical Education teachers are advised to continue developing varied and participatory learning strategies, providing constructive feedback, and creating an inclusive learning environment to maintain student motivation. Furthermore, school support through the provision of adequate facilities and infrastructure is also a crucial factor in sustaining effective Physical Education learning.

The limitations of this study lie in its limited scope of subjects within a single school and the use of a descriptive quantitative approach, which does not fully describe the dynamics of student motivation in depth. Therefore, future research is recommended to involve a broader range of subjects and combine quantitative approaches with qualitative methods, such as observation or interviews, to gain a more comprehensive understanding of the factors influencing students' motivation to learn Physical Education in elementary schools.

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REFERENCES

- Arikunto, S. (2020). *Prosedur penelitian: Suatu pendekatan praktik*. Rineka Cipta.
- As-safa, A., Raharjo, A., & Prasetyo, Y. (2025). Peningkatan motivasi belajar pendidikan jasmani melalui permainan estafet di sekolah dasar. *Jurnal Pendidikan Jasmani Indonesia*, 21(1), 45–53.
- As-safa, A. H. T., Mardiyanto, A., Purnomo, I., & Yunan, M. (2025). Meningkatkan Motivasi Belajar Kebugaran Jasmani melalui Permainan Estafet untuk Siswa Kelas 5 SD Negeri Bawang 1 Kediri. 03(04), 512–517.
- Astuti, A. M., Jariono, G., & Warthadi, A. N. (2025). Survei Minat Belajar Siswa dalam Mengikuti Ekstrakurikuler Futsal di SMA Negeri 1 Karangdowo. 10(April), 26–34.
- Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I., Sandford, R., & BERA Physical Education and Sport Pedagogy Special Interest Group. (2019). The educational benefits claimed for physical education and school sport: An academic review. *Research Papers in Education*, 34(5), 569–595. <https://doi.org/10.1080/02671522.2019.1615798>
- Boone, H. N., & Boone, D. A. (2012). Analyzing Likert data. *Journal of Extension*, 50(2), Article 2TOT2. <https://doi.org/10.34068/joe.50.02.02>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge. <https://doi.org/10.4324/9781315456539>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications. <https://doi.org/10.4135/9781506330204>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Ginanjar, A., Jariono, G., & Wulandari, H. (2024). Motivasi belajar siswa dalam pembelajaran pendidikan jasmani berbasis aktivitas bermain. *Jurnal Keolahragaan*, 12(2), 178–188. <https://doi.org/10.21831/jk.v12i2.68241>
- Ginanjar, S., Farida, E., Kusmiyati, Iffah, N., Halim, A., Mova, A., S, A., Ginting, A., Nimrot, M., Surimririan, M. A., Fadhilah, E. M., Tajuddin, A. I., Indarto, P., Hardiyanto, L. P., Murtadho, A., Kurniawati, A., Indrakasih, Apriliyanto, R., Hasanah, I., ... Irfan. (2024). Sehat Dan Bugar Melalui Pendidikan Jasmani Dan Olahraga (Akedemika).

- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2019). How to design and evaluate research in education (10th ed.). McGraw-Hill Education. <https://doi.org/10.4324/9781315675404>
- Hakim, H., & Ishak, M. (2025). The impact of modified physical education learning with volleyball games on students' learning motivation and basic movement skills. *Indonesian Journal of Physical Activity*, 5(1), 121-131.
- Hastie, P. A., Casey, A., & Tinning, R. (2020). Models-based practice in physical education: A review of literature. *Journal of Teaching in Physical Education*, 39(4), 491-505. <https://doi.org/10.1123/jtpe.2019-0203>
- Jariono, G., & Subekti, N. (2020). Sports Motivation Survey And Physical Activity Students Of Sport Education Teacher Training And Education Faculty Fkip Muhammadiyah University Surakarta. 4(2).
- Jariono, G., & Subekti, N. (2020). Motivasi belajar siswa dalam pembelajaran pendidikan jasmani. *Jurnal Pendidikan Jasmani dan Olahraga*, 5(2), 89-98. <https://doi.org/10.17509/jpjo.v5i2.25517>
- Juniarsih, S., Widodo, A., & Hidayat, Y. (2021). Analisis motivasi belajar siswa dalam pendidikan jasmani di sekolah dasar. *Jurnal Pendidikan Jasmani Indonesia*, 17(1), 12-20. <https://doi.org/10.21831/jpji.v17i1.39655>
- Juniarsih, W., Maftuhah, Y., & Syamsiyah, S. (2021). Peningkatan Motivasi Belajar Matematika Simetri Lipat Dan Simetri Putar Melalui Media Sparkol. *Educatif Journal of Education Research*, 4(1), 8-17. <https://doi.org/10.36654/edukatif.v4i1.87>
- Kirk, D. (2019). *Physical education futures*. Routledge. <https://doi.org/10.4324/9781315752747>
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), 1-55. <https://doi.org/10.1037/h0070368>
- Mubarak, J. A., Mardiyanto, A., Purnomo, I., & Firmansyah, M. Y. (2025). Peningkatan Motivasi Belajar Dengan Pendekatan Bermain Pada Pelajaran PJOK Kelas III. 3(4), 686-691.
- Mubarak, F., Saputra, D., & Rahayu, E. T. (2025). Pembelajaran pendidikan jasmani berbasis permainan untuk meningkatkan motivasi belajar siswa SD. *Jurnal Pendidikan Jasmani dan Olahraga*, 10(1), 33-42.
- Mustaqim, W. N., Jariono, G., & Sudarmanto, E. (2025). Tingkat Motivasi Belajar Pencak Silat (Studi Empiris Pada Siswa Ekstrakurikuler Pencak Silat Tapak Suci SMP Ahmad Dahlan Kabupaten Sukoharjo). 10.
- Mustaqim, A., Prasetyo, Y., & Widiyanto. (2025). Persepsi dan motivasi siswa dalam mengikuti aktivitas jasmani di sekolah dasar. *Jurnal Keolahragaan*, 13(1), 65-74.
- Ntoumanis, N., Ryan, R. M., Fox, K. R., & Duda, J. L. (2021). Motivation in physical education: A self-determination theory perspective. *Educational Psychology Review*, 33, 567-588. <https://doi.org/10.1007/s10648-020-09556-0>
- Owen, K. B., Smith, J., Lubans, D. R., Ng, J. Y., & Lonsdale, C. (2022). Self-determined motivation and physical activity in children and adolescents. *International Journal of Behavioral Nutrition and Physical Activity*, 19(1), 25. <https://doi.org/10.1186/s12966-022-01254-6>

- Pratikto, E. J., & Warthadi, A. N. (2021). Minat Siswa Dalam Pembelajaran Daring Mata Pelajaran Pendidikan Jasmani Olahraga Dan Kesehatan Sma Negeri Di Boyolali. 1(4).
- Rewa, I., Adil, A., & Sahidal. (2024). Peningkatan Motivasi Belajar Siswa Kelas VI dengan Pendekatan Bermain Pada Mata Pelajaran PJOK. 2, 1363–1368.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective. Academic Press. <https://doi.org/10.1016/B978-0-12-818697-5.00002-4>
- Saraswati, Y., Harman, H., & Dewi, S. (2023). Pengaruh Minat Dan Motivasi Belajar Terhadap Kemampuan Literasi Matematika Siswa Kelas Ix Smp Negeri 6 Kota Jambi. PHI: Jurnal Pendidikan Matematika, 7(1), 53. <https://doi.org/10.33087/phi.v7i1.271>
- Saraswati, D., Hakim, A., & Ishak, M. (2023). Faktor intrinsik dan ekstrinsik yang memengaruhi motivasi belajar pendidikan jasmani. Jurnal Pendidikan Jasmani Indonesia, 19(2), 101–110. <https://doi.org/10.21831/jpji.v19i2.53422>
- Standage, M., Gillison, F. B., & Ntoumanis, N. (2020). Predicting students' physical activity and health-related outcomes in physical education. Journal of Sport and Exercise Psychology, 42(4), 245–257. <https://doi.org/10.1123/jsep.2019-0303>
- Sugiharto. (2024). Motivasi belajar pendidikan jasmani: Perspektif psikologi pendidikan. Jurnal Psikologi Pendidikan dan Konseling, 10(1), 55–64.
- Sugiharto, A. (2024). Motivasi peserta didik fase a dalam mengikuti pembelajaran pendidikan jasmani , olahraga , dan kesehatan di sekolah dasar. November, 233–237.
- Sudijono, A. (2021). Pengantar statistik pendidikan. Rajawali Pers.
- Sugiyono. (2022). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.
- Syafruddin, M. A., Jahrir, A. S., Yusuf, A., Ikadarny, & Yusuf, A. (2022). Peran Pendidikan Jasmani Dan Olahraga Dalam Pembentukan Karakter Bangsa. Jurnal Ilmiah STOK Bina Guna Medan, 10(2), 73–83.
- Wulandari, W., & Jariono, G. (2022). Upaya Meningkatkan Kebugaran Jasmani Menggunakan Model Pembelajaran Kooperatif. Jurnal Porkes(Jurnal Pendidikan Olahraga Kesehatan & Rekreasi), 5(1), 245–259. <https://doi.org/10.29408/porkes.v5i1>
- Wulandari, H., & Jariono, G. (2022). Pendidikan jasmani sebagai fondasi pembentukan karakter siswa sekolah dasar. Jurnal Pendidikan Jasmani Indonesia, 18(1), 1–9. <https://doi.org/10.21831/jpji.v18i1.45123>
- Van den Berghe, L., Vansteenkiste, M., Cardon, G., Kirk, D., & Haerens, L. (2019). Research on self-determination in physical education. Educational Psychology Review, 31(3), 587–619. <https://doi.org/10.1007/s10648-018-9467-3>