

Self-Reported Implementation of Mindful, Meaningful, and Joyful Learning Among Elementary School Physical Education Teachers

Azimatunur Sania Kladika^{1*}, Wening Nugraheni², Firman Septiadi³

^{1,2,3}Department of Physical Education, Health and Recreation, University of Muhammadiyah Sukabumi, Indonesia

Received: June 2, 2026
Accepted: July 1, 2026

*Corresponding author:
Azimatunur Sania Kladika

email:
azimatinursanakladika@gmail.com

Additional information is
available

Abstract: Deep learning is an educational approach that emphasizes mindful, meaningful, and joyful learning processes. However, research on its implementation in Physical Education, Sport, and Health (PJOK) at the elementary school level remains limited. Specifically, there has been no quantitative survey examining the implementation of deep learning in PJOK learning at elementary schools, no specific mapping of how elementary school PJOK teachers apply deep learning principles in their teaching practices, and no empirical data concerning this issue in Citamiang District, Sukabumi City. Therefore, this study aimed to examine the level of deep learning implementation in PJOK at elementary schools in Citamiang District, Sukabumi City. A quantitative approach with a descriptive survey method was employed. The sample consisted of 33 PJOK teachers affiliated with the PJOK Teacher Working Group (KKG) in Citamiang District, selected through a total sampling technique. Data were collected using a 36-item Likert-scale questionnaire with established validity and reliability ($\alpha = 0.937$) and were analyzed using descriptive statistics. The results revealed a mean score of 129.33 out of a maximum ideal score of 144, yielding an achievement percentage of 89.81%, which was categorized as very good. The findings indicate that participating teachers reported a very high perceived level of deep learning implementation. Because the data were based exclusively on self-reports, the results should not be interpreted as direct evidence of classroom practice

Keyword : *deep learning, elementary school, implementation, physical education.*



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Introduction

Education is a vital aspect of human life, as it enables individuals to optimally develop their potential not only in knowledge, but also in character, attitudes, and skills needed for social life. According to Indonesian Law Number 20 of 2003 on the National Education System, education is a conscious and planned effort to create a learning environment that helps students develop their spiritual strength, personality, intelligence, moral character, and skills needed for themselves, society, and the nation. This process takes place through

learning designed so that students not only receive information but also understand and apply it in daily life (Pane & Darwis Dasopang, 2017). Education is currently undergoing dynamic change driven by technological advancement and digitalization, requiring schools to cultivate critical thinking, creativity, communication, collaboration, and strong literacy skills to prepare students for the demands of the 21st century (Rahman et al., 2021).

Deep learning is a pedagogical approach that emphasizes deep conceptual understanding rather than mere memorization, aiming to enable students to connect knowledge with real-life contexts and develop higher-order thinking skills through a learning process that is mindful, meaningful, and joyful (Anwar & Sodik, 2025; Ennis, 2017), while also fostering critical thinking, creativity, and problem-solving as part of improving the quality of learning (Akmal et al., 2025). Within physical education, these objectives can be supported through student-centered pedagogical models that reposition teachers as facilitators and provide students with more active roles in the learning process (Goodyear & Dudley, 2015). In this context, Physical Education, Sport, and Health (PJOK) plays an important role in Indonesia's education system, as it focuses on the holistic development of students through physical activity that integrates cognitive, affective, and psychomotor aspects, thereby contributing to students' physical, mental, and social development (Pratiwi et al., 2023). In this context, Physical Education, Sport, and Health (PJOK) plays an important role in promoting students' holistic development by integrating physical competence with cognitive, affective, motivational, and social learning experiences (Ennis, 2017). Conceptually, PJOK uses physical activity as the primary medium to cultivate active living habits, raise health awareness, and foster students' motivation to exercise independently as part of a healthy lifestyle (Al Fathan et al., 2022). International literature further suggests that students are more likely to value physical activity when physical education provides meaningful experiences characterized by social interaction, enjoyment, appropriate challenge, motor competence, and personal relevance (Beni et al., 2017), with the goal of developing physical fitness, motor skills, health knowledge, and positive attitudes toward physical activity, as well as character traits such as discipline, teamwork, sportsmanship, and responsibility—making PJOK not only a practical subject but also a means of character education and the development of social values (Faisal et al., 2024).

In the context of elementary schools, PJOK should not be understood merely as a subject emphasizing motor skills, but as an educational setting in which students can develop competence, social interaction, enjoyment, collaboration, and personally meaningful connections with physical activity (Beni et al., 2017; Fletcher & Ní Chróinín, 2022; Ní Chróinín et al., 2018). Indonesian research indicates that PJOK learning in elementary schools contributes to the formation of students' character, including discipline, responsibility, and social values through direct, hands-on learning activities (Rizki et al., 2024). Accordingly, the condition of PJOK in elementary schools in

Citamiang District, Sukabumi City, can be understood as strategically important, as it aligns with the nature of elementary education, which emphasizes not only academic achievement but also the formation of habits and character in students.

Based on the above discussion, the implementation of deep learning in Physical Education, Sport, and Health (PJOK) warrants further investigation because this approach has the potential to foster active, meaningful, and reflective learning experiences for students. This study is particularly important at the elementary school level, as it represents a foundational stage in shaping students' knowledge, skills, attitudes, and learning habits. Elementary schools in Citamiang District, Sukabumi City, were selected as the research setting because the implementation of deep learning in PJOK at this level has not yet been specifically mapped in this area, while the presence of an active PJOK Teacher Working Group (KKG) provides a relevant context for examining teachers' readiness and instructional practices. Therefore, this study employed a quantitative approach with a descriptive survey method to examine the level of deep learning implementation in PJOK learning among elementary school teachers in Citamiang District and to provide an empirical description of its implementation in the field.

Method

This study employed a quantitative approach with a descriptive survey method. A quantitative approach was chosen because the study aimed to obtain a picture of the level of deep learning implementation in the PJOK subject at elementary schools in Citamiang District, Sukabumi City, through numerical data analyzed statistically. The survey method was selected because it enabled the researcher to collect data systematically from respondents using a questionnaire instrument in order to describe the actual conditions in the field. The research design used was a quantitative descriptive survey design, which was intended to obtain factual information regarding the implementation of deep learning in the PJOK subject through the distribution of questionnaires to PJOK teachers. The population in this study consisted of 33 elementary school PJOK teachers who were members of the PJOK Teacher Working Group (KKG) in Citamiang District, Sukabumi City. The inclusion criteria were PJOK teachers who were actively teaching at the elementary school level and officially registered as members of the PJOK KKG of Citamiang District at the time of the study. Because the total population was relatively small, all 33 teachers were involved as research respondents using a total sampling technique.

The sampling technique used in this study was saturated sampling (census), in which all members of the target population were included as research respondents (Machali, 2021). This technique was chosen because the study focused specifically on the PJOK teachers who were active members of the PJOK Teacher Working Group (KKG) in Citamiang District, Sukabumi City, at the time the research was conducted. Accordingly, the sample consisted of all active PJOK KKG

members in Citamiang District. Data were collected through a questionnaire administered via Google Form and distributed to respondents through the WhatsApp group of the PJOK KKG. The use of online media facilitated instrument distribution, improved the efficiency of data collection, and allowed respondents to complete the questionnaire flexibly according to their available time. Because the sample was limited to active members of the PJOK KKG in Citamiang District, the findings of this study are intended to describe the level of deep learning implementation within that group and should not be generalized directly to all PJOK teachers in Sukabumi City or other regions.

The subjects of this study were all teachers of Physical Education, Sport, and Health (PJOK) in elementary schools in Citamiang District, Sukabumi City, who are members of or active in the PJOK KKG of Citamiang District. PJOK teachers were selected as research subjects because they play a strategic role in designing, implementing, and evaluating physical activity-based learning processes.

The research instrument used in this study was a questionnaire developed to measure the implementation of deep learning in the PJOK subject. The instrument was constructed based on three main dimensions of deep learning implementation, namely planning, implementation, and evaluation of learning. These dimensions were translated into several indicators, including the preparation of learning activities that reflect mindful, meaningful, and joyful learning principles, the implementation of student-centered PJOK learning activities, and the evaluation of learning processes and outcomes in accordance with deep learning principles. In total, the initial questionnaire consisted of 53 items. Prior to its use in the main study, the instrument was piloted on 13 respondents outside the main research sample, and item validity was tested using Pearson's product-moment correlation in SPSS version 25. The validity test showed that 36 items met the validity criterion ($r\text{-calculated} \geq r\text{-table} = 0.553$; $N = 13$; $\alpha = 0.05$) and were retained in the final instrument, while 17 items that did not meet the criterion were excluded. The retained items were then used in the main data collection. Reliability testing of the final 36-item instrument yielded a Cronbach's Alpha coefficient of 0.937, indicating a high level of internal consistency. Thus, the questionnaire was considered sufficiently valid and reliable for measuring the level of deep learning implementation in PJOK learning.

To provide a clearer description of how deep learning was measured, the instrument grid included the following dimensions: (1) learning planning, which covered indicators such as the formulation of PJOK learning objectives, preparation of learning strategies, and alignment of teaching materials with deep learning principles; (2) learning implementation, which included indicators such as student engagement, reflective learning activities, meaningful learning experiences, and joyful learning practices in PJOK; and (3) learning evaluation, which covered indicators related to assessment, reflection, and follow-up of learning outcomes. A summary of the dimensions,

indicators, number of valid items in each dimension, and sample questionnaire items is presented in the instrument grid table.

The data analysis in this study was conducted using SPSS to process questionnaire data on the implementation of deep learning in the PJOK subject at elementary schools in Citamiang District, Sukabumi City. Responses were first coded and scored using a 4-point Likert scale, and the resulting scores were then analyzed descriptively using frequency distribution, mean, minimum score, maximum score, and standard deviation to provide an overview of the level of deep learning implementation. The findings were presented in tables and descriptive explanations to ensure clarity and systematic interpretation.

To determine the level of implementation, the total score obtained from the questionnaire was converted into a percentage of the maximum ideal score using the formula: $\text{obtained score} / \text{maximum ideal score} \times 100\%$. The resulting percentage was then interpreted using the criteria proposed by (Putra & Wiratsiwi, 2024), namely very poor (0%-20%), poor (21%-40%), fairly good (41%-60%), good (61%-80%), and very good (81%-100%). In this study, these categories were used to interpret the overall level of deep learning implementation based on the total questionnaire score. Therefore, the interpretation primarily reflects the general level of implementation of deep learning in PJOK learning among the respondents. More specific claims regarding particular dimensions or principles of deep learning, such as mindful, meaningful, and joyful learning, would require separate analysis at the dimension or indicator level.

Results And Discussion

Based on the data collection results, a total of 33 PJOK teachers who were members of the PJOK Teacher Working Group (KKG) of Citamiang District participated in this study. All respondents completed the research questionnaire in accordance with the established requirements, so the data obtained could be used for further analysis. With 33 respondents, this study involved all active members of the PJOK KKG of Citamiang District as the research sample through a saturated sampling technique. Therefore, the data obtained are intended to describe the perceptions of PJOK teachers regarding the implementation of deep learning in PJOK learning within the research context. Based on the data analysis conducted, the following results were obtained.

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	SD
Implementation of Deep Learning	33	108	144	129.33	8.339

Based on the table above, the number of respondents in this study was 33 PJOK teachers. The descriptive statistical analysis showed a minimum score of 108, a maximum score of 144, a mean

score of 129.33, and a standard deviation of 8.339. The relatively small standard deviation indicates that the respondents' scores tended to be relatively homogeneous, with no excessively large variation among teachers. When converted into a percentage of the maximum ideal score, the mean score of 129.33 out of 144 corresponds to an achievement level of 89.81%, which falls into the "very good" category.

To provide a clearer picture of the distribution of respondents' scores, the results were also categorized based on the established interpretation criteria. The frequency distribution showed that 21 teachers were in the very good category, 12 teachers were in the good category, 0 teachers were in the fairly good category, and no respondents were classified in the poor or very poor categories. These findings indicate that most PJOK teachers in the Citamiang District KKG perceived the implementation of deep learning in PJOK learning to be at a high level. If analyzed further by dimension, the results may also describe the level of implementation in the planning, implementation, and evaluation aspects of deep learning.

Based on the comparison between the mean value obtained and the maximum ideal score of 144, an achievement level of 89.81% was obtained. This result indicates that the implementation of deep learning in the PJOK subject in elementary schools in Citamiang District, Sukabumi City, falls into the very good category. In addition, the standard deviation value of 8.339 indicates that the distribution of respondent data is relatively homogeneous, meaning that the level of deep learning implementation among PJOK teachers tends not to show excessively large differences.

Discussion

Based on the data analysis results, the mean score obtained was 129.33 out of a maximum ideal score of 144. This result corresponds to an achievement percentage of 89.81%, which falls into the very good category. These findings indicate that, based on the responses of PJOK teachers, the implementation of deep learning in the PJOK subject in elementary schools in Citamiang District, Sukabumi City, is perceived to be at a very good level. In other words, the teachers reported a high level of implementation of deep learning principles in the learning process.

Deep learning is a pedagogical approach that is not only oriented toward content mastery but also emphasizes deeper understanding, character development, and active student engagement in the learning process. This approach is implemented through three main principles: mindful learning, meaningful learning, and joyful learning. These principles are intended to create learning experiences that are conscious, meaningful, and enjoyable, enabling students to engage with learning materials more deeply and sustainably (Widyastuti et al., 2025). However, in the context of this study, the findings should be understood as reflecting teachers' perceptions of the implementation of deep learning, rather than as direct observational evidence of classroom practice.

The high overall score of deep learning implementation in this study indicates that, based on teachers' responses, PJOK learning in elementary schools in Citamiang District has been perceived to reflect the principles of deep learning at a very good level. This finding is not only shown by the overall mean score of 129.33 (89.81%), but also by the positive responses across the questionnaire indicators covering learning planning, implementation, and evaluation. In other words, the results suggest that teachers perceived themselves as having made efforts to design and carry out PJOK learning in ways that are more student-centered and aligned with the characteristics of deep learning.

From the perspective of learning implementation, the high score may indicate that teachers have attempted to provide PJOK learning experiences that involve students actively in physical activities, relate learning to students' daily lives, and support a more meaningful learning process. This interpretation is consistent with the concept of meaningful learning, which emphasizes connecting learning material with students' real-life experiences. In addition, the positive results on the implementation indicators may also suggest that teachers perceive their learning practices as supporting mindful learning, in the sense that students are encouraged not only to participate in physical activities but also to understand the purpose and benefits of those activities. Likewise, the nature of PJOK learning, which is closely associated with movement, games, and social interaction, may contribute to the positive perception of joyful learning in the classroom context.

However, the discussion of these findings should not rely solely on theoretical explanations of mindful, meaningful, and joyful learning. Greater attention also needs to be given to the empirical pattern shown in the questionnaire results. If certain dimensions or indicators obtained lower scores than others, these aspects should be interpreted as areas that still need improvement. For example, if the evaluation dimension received a lower score than planning and implementation, this may indicate that while teachers perceive deep learning practices to be well implemented in classroom activities, assessment, reflection, and follow-up components may still require strengthening. Therefore, the findings of this study should be interpreted not only as evidence of a high overall perceived level of deep learning implementation, but also as a basis for identifying which aspects of planning, implementation, or evaluation are already strong and which still need further development in PJOK learning.

These findings are broadly consistent with previous studies reporting that the implementation of deep learning contributes to more active, meaningful, and student-centered learning processes. Similar to those studies, the present research also indicates a high level of deep learning implementation, as reflected in teachers' positive responses to the questionnaire on PJOK learning. However, this study differs from much of the previous research in two important ways. First, it focuses specifically on the context of Physical Education, Sport, and Health (PJOK) at the elementary school level, whereas

earlier studies have often examined deep learning in more general classroom contexts or in subjects other than PJOK. Second, the findings of this study are based on teachers' perceptions of implementation rather than direct measurement of student learning outcomes or classroom observations.

The similarity of the findings may be related to the characteristics of PJOK learning itself. At the elementary school level, PJOK naturally involves movement-based activities, games, participation, and social interaction, which are closely aligned with the principles of deep learning, particularly meaningful and joyful learning. At the same time, the use of physical activities that are connected to students' daily experiences may also support the implementation of mindful learning by helping students understand the purpose and benefits of what they do in class. Therefore, the very good category found in this study can be interpreted as indicating that, within the context of PJOK in elementary schools in Citamiang District, teachers perceive deep learning practices to have been implemented positively, even though further evidence from classroom observation or dimension-based analysis would be needed to confirm how these principles are enacted in practice.

Conclusions

This study found that elementary school PJOK teachers affiliated with the Citamiang District Teacher Working Group reported a very high perceived level of deep learning implementation. However, these findings represent teachers' self-reported perceptions rather than independently observed classroom practices. Dimension-level analysis is necessary to identify strengths and areas requiring improvement in planning, instructional implementation, and evaluation. Future studies should employ larger samples, stronger psychometric validation, classroom observation, document analysis, and student perspectives to triangulate the implementation of mindful, meaningful, and joyful learning in elementary physical education.

In addition, these findings provide an indication that the implementation of deep learning within the framework of the Merdeka Curriculum has been positively perceived by PJOK teachers in the study context. However, given that this study employed a descriptive survey design and relied on teachers' self-reported responses, the results should be interpreted as a picture of teachers' perceptions of implementation rather than as direct evidence of classroom practice or as a basis for concluding that teacher readiness is no longer a major obstacle. Nevertheless, the findings may serve as an initial empirical reference for understanding the implementation of deep learning in PJOK and for supporting future efforts to strengthen teacher professional development and learning practices in similar educational contexts.

Reference

- Akmal, A. N., Maelasari, N., & Lusiana, L. (2025). Pemahaman Deep Learning dalam Pendidikan: Analisis Literatur melalui Metode Systematic Literature Review (SLR). *JlIP - Jurnal Ilmiah Ilmu Pendidikan*, 8(3), 3229–3236.
<https://doi.org/10.54371/jiip.v8i3.7442>
- Al Fathan, K. M., Andriani, K. M., Nurjanah, M., Munawaroh, R. Z., & Dewi, D. T. (2022). Analisis Materi Pendidikan Jasmani Olahraga dan Kesehatan (PJOK) untuk Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 4(5), 6914–6921.
<https://doi.org/10.31004/edukatif.v4i5.3392>
- Anwar, Moh., & Sodik, H. (2025). Kerangka Konseptual Pembelajaran Mendalam (Deep Learning) dalam Pendidikan di Indonesia. *Tafhim Al-'Ilmi : Jurnal Pendidikan Dan Pemikiran Islam*, 17(1), 69–96.
- Beni, S., Fletcher, T., & Ní Chróinín, D. (2017). Meaningful Experiences in Physical Education and Youth Sport: A Review of the Literature. *Quest*, 69(3), 291–312.
<https://doi.org/10.1080/00336297.2016.1224192>
- Ennis, C. D. (2017). Educating Students for a Lifetime of Physical Activity: Enhancing Mindfulness, Motivation, and Meaning. *Research Quarterly for Exercise and Sport*, 88(3), 241–250.
<https://doi.org/10.1080/02701367.2017.1342495>
- Faisal, M., Arismunandar, Suardi, & Mas'ud, M. (2024). Kurikulum Pendidikan Jasmani Olahraga dan Kesehatan (PJOK) di Sekolah Dasar. *Journal on Education*, 7(1), 7015–7022.
- Fletcher, T., & Ní Chróinín, D. (2022). Pedagogical principles that support the prioritisation of meaningful experiences in physical education: conceptual and practical considerations. *Physical Education and Sport Pedagogy*, 27(5), 455–466.
<https://doi.org/10.1080/17408989.2021.1884672>
- Goodyear, V., & Dudley, D. (2015). "I'm a Facilitator of Learning!" Understanding What Teachers and Students Do Within Student-Centered Physical Education Models. *Quest*, 67(3), 274–289.
<https://doi.org/10.1080/00336297.2015.1051236>
- Machali, I. (2021). *Metode Penelitian Kuantitatif*.
- Ní Chróinín, D., Fletcher, T., & O'Sullivan, M. (2018). Pedagogical principles of learning to teach meaningful physical education. *Physical Education and Sport Pedagogy*, 23(2), 117–133.
<https://doi.org/10.1080/17408989.2017.1342789>

- Pane, A., & Darwis Dasopang, M. (2017). Belajar Dan Pembelajaran. *FITRAH: Jurnal Kajian Ilmu-Ilmu Keislaman*, 3(2), 333-352.
<https://doi.org/10.24952/fitrah.v3i2.945>
- Pratiwi, A. S., Nugraheni, W., & Maulana, F. (2023). Identifikasi Kebugaran Jasmani Siswa SMK: Dampak Penghapusan Mata Pelajaran PJOK. *Jurnal Educatio FKIP UNMA*, 9(4), 1719-1725.
<https://doi.org/10.31949/educatio.v9i4.5774>
- Putra, A. F., & Wiratsiwi, W. (2024). Pengembangan Media Pembelajaran Augmented Reality Sipintarcermat Pada Materi Sistem Pencernaan Manusia Untuk Meningkatkan Hasil Belajar Siswa kelas V UPT SDN Doromukti. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 09(03), 233-247.
- Rahman, A. A., Lengkana, A. S., & Angraeni, A. (2021). Pembekalan Dan Implementasi Pembelajaran Abad 21 Bagi Guru Bahasa Inggris Smp Kabupaten Sumedang. *Jurnal Widya Laksana*, 10(2), 202. <https://doi.org/10.23887/jwl.v10i2.32352>
- Rizki, A. N., Komariyah, L., & Rahmat, A. (2024). Pembentukan Karakter Siswa SD Melalui Permainan Tradisional Pada Pembelajaran Penjas: Systematic Literature Review. *Jurnal Pedagogik Olahraga*, 10(1), 243-252.
- Widyastuti, W., Widyasari, C., Rahmawati, F. P., & Minsih, M. (2025). Implementasi Prinsip Pengelolaan Meaningful, Mindful, dan Joyful Learning dalam Proses Pembelajaran Mendalam: Studi Kasus di Sekolah Dasar Islam Terpadu. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 9(5), 2172-2181.
<https://doi.org/10.31004/obsesi.v9i5.7339>