

Enhancing Class VC Students' Learning Interest through Music and Rhythmic Games in Rhythmic Gymnastics at SDN Ungaran 01

Faradina Safira Andriyanti^{1✉}, Fakhrol Hidayat², Edhistya Yulia Putri Pratiwi³, Dwi Sri Kuspriyani⁴,
Ajrin Ihsani⁵, Dista Djohan Rian Effendy⁶, Agung Wahyudi⁷, Asma'i⁸

(1,2,3,4,5,6,7) Universitas Negeri Semarang, Semarang, Indonesia
(8) SDN Ungaran 01, Kabupaten Semarang, Indonesia

Received: 15-06-2026 | Revised: 12-08-2026 | Accepted: 25-09-2026

Corresponding Author:

Faradina Safira Andriyanti,

Program Pendidikan Profesi Guru (PPG), Universitas Negeri Semarang, Gedung Kearsipan UNNES Lantai 3, Kampus UNNES
Sekaran, Kecamatan Gunungpati, Kota Semarang, Jawa Tengah 50229, Indonesia.

Email: faradinasafira27@gmail.com

ABSTRACT

Student interest in rhythmic gymnastics is an important consideration in creating engaging and participatory Physical Education, Sports, and Health (PJOK) lessons. This study aimed to describe the implementation of music and rhythmic games and examine changes in student responses and learning outcomes following instructional improvements. A collaborative classroom action research design was conducted over two cycles involving 33 fifth-grade students at SDN Ungaran 01. Each cycle consisted of a 140-minute session. Data were collected through observation and documentation and analyzed descriptively by integrating qualitative findings with assessment results. The findings showed more positive student responses in the second cycle, particularly in enthusiasm, participation, and cooperation. The class average score increased from 69.7 in Cycle I to 85 in Cycle II, and all students were reported to have achieved the Minimum Mastery Criterion. These findings suggest that varied musical accompaniment and rhythmic games may support more engaging rhythmic gymnastics instruction and improved learning outcomes. However, consistent measurement of learning interest is still needed to establish the extent of any improvement in students' interest.

Minat belajar siswa dalam pembelajaran senam irama perlu diperhatikan agar kegiatan Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK) berlangsung lebih menarik dan partisipatif. Penelitian ini bertujuan mendeskripsikan penerapan musik dan permainan ritmik serta perubahan respons siswa dan hasil belajar setelah tindakan pembelajaran diperbaiki. Penelitian menggunakan pendekatan penelitian tindakan kelas kolaboratif yang dilaksanakan dalam dua siklus terhadap 33 siswa kelas V C SDN Ungaran 01. Setiap siklus berlangsung selama 140 menit. Data dikumpulkan melalui observasi dan dokumentasi, kemudian dianalisis secara deskriptif dengan memadukan temuan kualitatif dan hasil penilaian. Hasil penelitian menunjukkan bahwa siswa memperlihatkan antusiasme, partisipasi, dan kerja sama yang lebih positif pada siklus kedua. Nilai rata-rata kelas meningkat dari 69,7 pada siklus pertama menjadi 85 pada siklus kedua, dan seluruh siswa dilaporkan mencapai Kriteria Ketuntasan Minimal. Temuan ini menunjukkan bahwa variasi musik dan permainan ritmik berpotensi mendukung pembelajaran senam irama yang lebih menarik dan hasil belajar yang lebih baik. Pengukuran minat belajar secara konsisten masih diperlukan untuk memastikan besarnya peningkatan minat siswa.

Keywords: learning interest, music, rhythmic games, rhythmic gymnastics

Introduction

Physical Education, Sports, and Health (PESH), known as *Pendidikan Jasmani, Olahraga, dan Kesehatan* (PJOK) in the Indonesian education system, is an integral component of elementary education that supports students' physical, cognitive, emotional, and social development. Beyond promoting physical fitness and motor competence, physical education



provides opportunities for students to develop discipline, cooperation, confidence, and positive attitudes toward an active lifestyle. Achieving these educational objectives requires learning experiences that are not only developmentally appropriate but also engaging and responsive to students' characteristics and needs. At the elementary school level, students generally benefit from concrete, interactive, and movement-oriented learning activities. Consequently, instructional approaches that rely excessively on repetitive exercises or teacher-directed explanations may limit opportunities for active participation and reduce students' interest in learning (Jurnal et al., 2024; Septianti & Afiani, 2020; Traditional et al., 2020; Jamaliah et al., 2025).

One component of physical education that requires active student engagement is rhythmic gymnastics. This activity integrates bodily movements with musical rhythms, requiring students to develop movement coordination, rhythmic accuracy, balance, flexibility, and body control. Rhythmic gymnastics also offers pedagogical potential because it enables motor skill instruction to be delivered through enjoyable and participatory experiences. Previous studies have indicated that systematically designed movement activities can support the development of motor skills and student engagement in learning (Ikhsan et al., 2020; Abdullah & Lubis, 2020; Dasar, J. P., 2020). Nevertheless, the implementation of rhythmic gymnastics in elementary schools may encounter several challenges, including limited activity variations, the use of music that may not adequately suit students' characteristics, and insufficient use of instructional media capable of capturing students' attention. These conditions indicate the need for more creative and contextually appropriate instructional approaches to optimize students' learning experiences in rhythmic gymnastics (Kurniawan et al., 2022; Nugroho Saputro & Rahayu, 2024).

Within this context, learning interest is an important aspect to consider because it is associated with students' willingness to engage, sustain their attention, and participate in learning activities. Learning interest is reflected not only in students' observable enthusiasm during instruction but also in their attentiveness to directions, willingness to attempt movements, persistence in participating in activities, and involvement in completing learning tasks. Learning interest should be distinguished from learning outcomes and motor skills because these are related but conceptually different constructs. Students who demonstrate increased interest do not necessarily exhibit an equivalent improvement in motor skills; similarly, the ability to perform movements proficiently does not always indicate a high level of interest or engagement in learning. Several studies have highlighted the importance of interest, learning readiness, and learning experiences in educational processes (Syarifudin, 2020; Senam & Untuk, n.d.; Simamora et al., 2024; Multidisiplin et al., 2024). Accordingly, efforts to improve learning interest in rhythmic gymnastics should be accompanied by clearly defined indicators to ensure that changes in students' engagement are assessed appropriately.

One approach that can be developed to create more participatory rhythmic gymnastics instruction is the use of music and rhythmic games. Music can function as a means of regulating tempo, guiding movement synchronization, and creating an engaging learning atmosphere. Meanwhile, rhythmic games can introduce activity variations through movement challenges, meaningful repetition, and interaction among students. Combining these elements may create a more engaging learning environment because students are not merely following movement instructions but also have opportunities to respond to musical rhythms, explore movement variations, and participate in enjoyable activities. Previous studies have discussed the use of music-based activities, games, and enjoyable instructional approaches to support students' learning experiences (Hayati & Putro, 2021; Yuliani & Hanif, 2024). However, the use of music

and rhythmic games does not automatically guarantee an improvement in learning interest. Their effectiveness depends on the suitability of the activities for students' characteristics, the clarity of instructional directions, classroom management, and the consistency of teacher support and feedback throughout the learning process.

Based on the instructional problems identified among Grade V C students at SDN Ungaran 01, this study focuses on improving students' interest in rhythmic gymnastics through the implementation of music and rhythmic games. SDN stands for *Sekolah Dasar Negeri*, which refers to a public elementary school in Indonesia. The identified instructional problems provide the basis for developing more varied learning activities that actively involve students and offer more engaging movement experiences. Although the use of music and games in education is not an entirely new approach, this study focuses on implementing and refining the strategy within the specific classroom context through systematic action cycles. Using a classroom action research approach informed by the model proposed by McNiff and Whitehead, instructional improvement is pursued through the stages of problem identification, action planning, implementation, observation, evaluation, and modification based on the findings from each cycle. Accordingly, the contribution of this study lies in its context-specific effort to improve instructional practice and document changes in students' learning interest throughout the intervention, rather than in claiming that music and rhythmic games constitute an entirely novel instructional approach.

Based on the preceding discussion, this study aims to improve the learning interest of Grade V C students at SDN Ungaran 01 in rhythmic gymnastics through the use of music and rhythmic games. The study was conducted over two classroom action research cycles, focusing on changes in students' engagement, attention, enthusiasm, and participation during the learning process. To ensure accurate interpretation, learning interest is treated as the primary assessment focus, while motor skills and learning achievement are considered distinct outcomes if they are also measured. Practically, this study is expected to provide physical education teachers with an alternative instructional strategy for designing more engaging and participatory rhythmic gymnastics activities. Academically, it is expected to contribute to discussions on the use of music and rhythmic games as contextually appropriate instructional strategies for supporting elementary students' learning interest, while acknowledging the limitations of generalizing findings obtained from a single classroom.

Methods

This study employed a collaborative Classroom Action Research (CAR) design to address instructional problems and improve the quality of rhythmic gymnastics learning among elementary school students. Classroom action research provides a systematic approach for examining teaching practices, implementing instructional improvements, and evaluating their effects through reflection (Machali, 2022; McNiff & Whitehead, 2011). The study involved 33 students from Class V C at SDN Ungaran 01 during the 2025/2026 academic year. It was conducted over four weeks, from April to May 2026, at a partner school where the researcher undertook Field Experience Practice (*Pengenalan Lapangan Persekolahan/PPL*) as part of the Teacher Professional Education (*Pendidikan Profesi Guru/PPG*) program. The study was conducted collaboratively with the classroom teacher, who implemented the instructional activities, while the researcher participated in planning, action implementation, observation, evaluation, and reflection.

The research design followed the McNiff and Whitehead model as described in the original manuscript, comprising six stages: *review*, *identify*, *imagine*, *implement*, *evaluate*, and *modify*. During the initial stages, existing rhythmic gymnastics instruction was examined to identify low student enthusiasm and limited movement variation as instructional concerns. The proposed intervention involved music-based rhythmic games using a Smart TV, integrated into a Problem-Based Learning (PBL) framework. The intervention consisted of two cycles, each comprising one 140-minute session. Cycle I included instructional videos, command-based stepping games, and rhythmic star-pattern activities. Based on the reflection conducted after Cycle I, Cycle II incorporated more varied musical accompaniment and games, adjustments to group arrangements, and closer supervision. The activities included moving to music, sitting down when the music stopped, passing a ball rhythmically, and jumping over cones. The stages and their implementation are summarized in Table 1.

Table 1. Stages of the Classroom Action Research and Their Implementation

Stage	Implementation
Review	Observing existing rhythmic gymnastics lessons and identifying low student enthusiasm.
Identify	Establishing low learning interest as the main instructional problem.
Imagine	Designing music-based rhythmic games integrated into PBL.
Implement	Conducting two instructional cycles using videos, music, and rhythmic games.
Evaluate	Observing student participation and reviewing instructional documentation.
Modify	Improving game variety, musical accompaniment, group arrangements, and supervision in Cycle II.

Data were collected through classroom observation, teaching modules or lesson plans (*Rencana Pembelajaran Modul/RPM*), and documentation in the form of photographs and videos. Qualitative data were analyzed through data reduction, data presentation, and conclusion drawing. Quantitative data were analyzed using the percentage formula ($P = \frac{f}{N} \times 100\%$), where (P) represents the percentage, (f) represents the frequency of students in the relevant category, and (N) represents the total number of students. The stated success criterion was that at least 75% of the students, equivalent to 24 of the 33 participants, should reach the “interested” or “highly interested” category. The results were examined by comparing observations and assessment scores across the two cycles to describe changes during the intervention.

Result

Cycle I: Implementation and Observational Findings

Cycle I was conducted on Wednesday, April 29, 2026, over a period of 140 minutes with 33 fifth-grade students from Class V C at SDN Ungaran 01. During the planning stage, the researcher and collaborator developed the lesson plan, prepared the necessary facilities and equipment, designed observation sheets, and established procedures for implementing and reflecting on the intervention. The instructional media consisted of music, instructional videos, cones, raffia string, and a Smart TV. The lesson was organized into introductory, core, and concluding activities. During the core session, students responded to the teacher’s introductory questions, watched an instructional video on rhythmic gymnastics, formed small groups, participated in a command-based stepping game, and performed a rhythmic star-pattern game. These activities were designed to incorporate music and rhythmic games into the learning process.

Observations of the teacher’s instructional practices indicated that the learning environment and equipment had been prepared, the material was delivered through music and rhythmic games, corrections were provided to students’ movements, and an evaluation of the

lesson was conducted. The teacher also attempted to establish an enjoyable learning environment. However, several aspects of the implementation required improvement. Safety instructions to prevent students from running in the filming area were insufficient, and the teacher did not consistently reprimand students who remained seated or failed to participate actively in the lesson.

Student observations revealed that most students appeared enthusiastic, communicated with the teacher and their peers, and participated in exercises involving variations in footwork, arm movements, and movement coordination. Nevertheless, student engagement was not uniform. Some students remained seated during the activities, had difficulty maintaining concentration because of the hot weather, talked while the teacher was explaining the material, or began to show signs of boredom with the games provided. These observations indicate that the use of music and rhythmic games elicited positive responses from most students, although maintaining attention and ensuring active participation remained important areas for improvement.

In terms of learning outcomes, the class average score in Cycle I was 69.7, below the established Minimum Mastery Criterion (*Kriteria Ketuntasan Minimal*, KKM) of 75. Therefore, the class had not achieved the required mastery level based on the reported average score. Reflection on the observation and assessment findings informed the planned improvements for Cycle II. These included introducing a greater variety of games and musical accompaniment, using more varied and engaging rhythms, grouping students according to ability, conducting the lesson earlier in the day to reduce the effects of hot weather, and strengthening supervision and corrective responses toward students who were not actively participating.

Cycle II: Implementation and Observational Findings

Cycle II was conducted on Wednesday, May 13, 2026, and lasted 140 minutes. The lesson continued to incorporate music and rhythmic games, while introducing a broader range of activities in response to the reflections from Cycle I. The core activities included performing free movements to music, practicing arm swings and footwork accompanied by *Pacu Jalur* music, playing a game in which students had to sit on a chair when the music stopped, passing a ball rhythmically to a partner, and jumping over cones in time with the music. The lesson also included a cool-down session and a question-and-answer activity concerning the material covered. Students were organized into groups to facilitate participation in the games. These activities represented an expansion of the instructional strategies planned following the first cycle.

Observations of the teacher indicated that the second cycle incorporated a wider variety of games. The teacher established an engaging and enjoyable learning atmosphere, demonstrated movements, responded to students' questions, and guided them through the rhythmic gymnastics activities. Student observations showed that the students appeared happier and more enthusiastic during the lesson. They adapted to the activities, complained less frequently, experienced no significant difficulties in performing the movements, and showed no observable signs of boredom during the session. Students were also reported to participate actively and demonstrate cooperation, self-confidence, and discipline. These findings describe more positive student responses during the second cycle than those recorded in the first cycle.

Regarding learning outcomes, the class average score in Cycle II reached 85, representing an increase of 15.3 points from the Cycle I average of 69.7. The score exceeded the established

KKM of 75. The reported data further indicated that all 33 students achieved the KKM in Cycle II, equivalent to 100% of the class. Thus, the class-level mastery criterion was reported as achieved in the second cycle. Reflection on Cycle II also documented more active student participation, greater enthusiasm for the games, and the ability to perform various movements accompanied by music. The intervention was concluded at the end of Cycle II because the class average had reached 85 and all students were reported to have met the KKM.

Comparison Between Cycles

The comparison between Cycle I and Cycle II illustrates changes in instructional implementation, student responses, and rhythmic gymnastics learning outcomes following the revisions made in response to the first cycle. In Cycle I, most students demonstrated enthusiasm and some degree of engagement in the activities. However, difficulties remained, including inconsistent attention, uneven participation, and emerging signs of boredom among some students. Reflection on these findings informed the subsequent intervention, particularly the introduction of more varied games and musical accompaniment, improved group organization, and closer supervision during the lesson.

In Cycle II, the range of learning activities was expanded. Observations indicated that students appeared happier and more enthusiastic, adapted to the activities, and demonstrated cooperation and discipline. These observational findings coincided with an increase in the class average score from 69.7 to 85 and the reported achievement of the KKM by all students in Cycle II. The comparison therefore presents two complementary types of findings: changes in student responses documented through observation and changes in learning outcomes reflected in assessment scores.

Table 1. Comparison of Instructional Implementation and Rhythmic Gymnastics Learning Outcomes in Cycle I and Cycle II

Indicator	Cycle I	Cycle II
Implementation date	April 29, 2026	May 13, 2026
Lesson duration	140 minutes	140 minutes
Learning activities	Instructional video, command-based stepping game, and rhythmic star-pattern game	Free movements to music, rhythmic movements accompanied by <i>Pacu Jalur</i> music, a game involving sitting when the music stopped, rhythmic ball passing, and jumping over cones
Student responses based on observations	Most students were enthusiastic, but some lacked concentration, participated less actively, or began to show signs of boredom	Students appeared happier and more enthusiastic, adapted to the activities, and demonstrated cooperation and discipline
Observed challenges	Insufficient safety instructions, inconsistent supervision of participation, and reduced concentration among some students	Students reportedly complained less frequently and showed no observable signs of boredom during the activities
Class average score	69.7	85
Minimum Mastery Criterion (KKM)	75	75
Class-level learning mastery	Not achieved	Achieved
Number of students meeting the KKM	Not specified in the available data	33 students
Percentage of students meeting the KKM	Not specified in the available data	100%

As shown in Table 1, the class average score increased by 15.3 points following the instructional improvements implemented in Cycle II. The class-level mastery criterion, which had not been achieved in Cycle I, was reported as achieved in Cycle II. Concurrently, the observational findings indicated a shift from uneven student engagement in the first cycle toward more positive responses in the second cycle. Learning outcomes are represented by the average assessment scores and KKM achievement, whereas student interest is described

through observational indicators, including enthusiasm, attention, participation, and signs of boredom. Accordingly, the available data support a descriptive account of changes in student responses and learning outcomes across the two cycles, but they do not provide a basis for calculating the magnitude of an increase in learning interest in numerical or percentage terms.

Discussion

The findings indicate that the integration of music and rhythmic games into rhythmic gymnastics instruction in Class V C at SDN Ungaran 01 was accompanied by more positive student responses and improved learning outcomes across the two research cycles. The observational findings showed that students appeared more enthusiastic, adapted more readily to the activities, and demonstrated cooperation and discipline during Cycle II than during Cycle I. Concurrently, the class average score increased from 69.7 to 85, representing a gain of 15.3 points. Together, these findings illustrate changes in the learning process and assessed performance following the revision of the instructional intervention. Nevertheless, the two types of evidence must be interpreted separately. Changes in student responses were documented through classroom observations, whereas improvements in learning outcomes were reflected in assessment scores and achievement of the Minimum Mastery Criterion (KKM). Accordingly, the findings support an improvement in the instructional process and learning outcomes, but they do not establish the magnitude of an increase in learning interest in quantitative terms.

The changes in student responses can be understood by examining the activities implemented in each cycle. During Cycle I, instruction involved an instructional video, a command-based stepping game, and a rhythmic star-pattern game. Although most students appeared enthusiastic and participated in movement exercises, some remained seated, talked while the teacher was explaining, experienced difficulty maintaining concentration because of the hot weather, or began to show signs of boredom. These observations suggest that incorporating music and games does not automatically ensure sustained engagement among all students. The potential of such activities to support participation also depends on appropriate activity variation, effective classroom management, clear instructions, and consistent supervision. Reflection on Cycle I was therefore an important component of the classroom action research process because it enabled subsequent instructional adjustments to be based on difficulties observed during implementation rather than on assumptions about students' needs.

In Cycle II, the teacher introduced a broader range of activities, including free movements to music, arm swings and footwork accompanied by *Pacu Jalur* music, a game in which students sat down when the music stopped, rhythmic ball passing, and cone-jumping activities performed in time with the music. These changes were accompanied by group organization and teacher guidance throughout the lesson. Observations indicated that students appeared happier and more enthusiastic, adapted to the activities, complained less frequently, and showed no observable signs of boredom during the session. Analytically, this pattern suggests that activity variation and improved instructional management may contribute to a more engaging learning experience. However, because several aspects of the intervention were modified simultaneously, the available data do not isolate the individual contribution of each game or musical selection. The changes in student responses should therefore be interpreted in relation to the overall instructional package implemented in Cycle II rather than attributed to any single component.

These findings are relevant to literature addressing music, rhythmic activities, and games in physical education. Ikhsan et al. (2020), as cited in the manuscript, examined the use of Malay rhythmic music in relation to students' interest in rhythmic gymnastics. Abdullah and Lubis (2020) discussed a rhythmic gymnastics instructional model based on learning media. These studies provide relevant conceptual and contextual points of reference for considering music and instructional media in the design of rhythmic gymnastics lessons. The present study adds a context-specific account of how music was combined with multiple movement-based games in elementary school instruction. Nevertheless, thematic relevance alone does not establish that the present findings are identical to those of previous studies. A more definitive comparison of similarities, differences, or relative effects would require examining the research designs, participant characteristics, instruments, and empirical findings reported in the original publications.

From a pedagogical perspective, rhythmic games can be understood as a means of integrating movement, rhythm, game rules, and social interaction within a single instructional sequence. Such activities provide opportunities for students to respond to instructions, coordinate movements with changes in rhythm, follow rules, and interact with their peers. In the present study, cooperation, self-confidence, discipline, and active participation were reported as observable characteristics during Cycle II. These findings are conceptually consistent with Hayati and Putro's (2021) discussion of play and games as part of children's learning experiences, as well as the treatment of rhythmic games attributed to Yuliani and Hanif (2024) in the manuscript. The practical implication is that physical education teachers may consider incorporating varied games that align with instructional objectives, students' abilities, the available space, and available resources. Music and games should not be used merely to make lessons enjoyable; they should also be designed to support movement proficiency, coordination, safety, and the achievement of learning objectives.

The increase in the class average score from 69.7 in Cycle I to 85 in Cycle II, together with the report that all 33 students achieved the KKM in the second cycle, indicates an improvement in learning outcomes during the intervention. These results, however, require a proportionate interpretation. Classroom action research is intended to improve instructional practice within a particular context; therefore, changes across cycles provide contextual evidence of developments following instructional revision. The available data do not include a comparison group or another design that would allow the effects of music and rhythmic games to be separated from other possible influences, such as additional movement practice, students' increasing familiarity with the activities, teacher guidance, or changes in classroom management. Furthermore, average scores and KKM achievement represent learning outcomes rather than direct measures of learning interest. The findings are therefore best interpreted as evidence of improved learning outcomes occurring alongside more positive student responses, rather than as proof that the improvements were caused exclusively by music and rhythmic games or that increased learning interest was quantitatively established.

Several limitations should be acknowledged. First, the study involved 33 students from one class at one school, which limits the extent to which the findings can be transferred to other educational settings without further investigation. Second, learning interest was described through observations of enthusiasm, attention, participation, and boredom, but the available data do not provide a series of quantitative interest scores that can be compared from the pre-intervention stage through Cycle II. Third, the reported class averages and mastery outcomes do not provide a detailed distribution of individual student scores across the two

cycles. Future studies should define learning-interest indicators operationally and employ consistent observation instruments; where appropriate to the research design, a validated learning-interest questionnaire could provide complementary evidence. Recording individual assessment scores and documenting instructional conditions would also strengthen comparisons across cycles. In classroom practice, teachers may develop music-based games progressively, evaluate student responses after each activity, and account for safety, environmental comfort, and diverse learning needs. These steps could enable future research to provide a more robust explanation of the relationship between music- and game-based instruction, learning interest, and rhythmic gymnastics learning outcomes.

Conclusion

This classroom action research indicates that incorporating music and rhythmic games into rhythmic gymnastics instruction was associated with more positive student responses and improved learning outcomes among Grade V C students at SDN Ungaran 01. These changes were reflected in observations of greater enthusiasm, participation, and cooperation during Cycle II, alongside an increase in the class average score from 69.7 in Cycle I to 85 in Cycle II. The findings suggest that varied musical accompaniment and rhythmic games can serve as an alternative instructional strategy in physical education to create more engaging learning experiences and support learning outcomes. However, because learning interest was described through observations rather than measured quantitatively and consistently at each stage, the extent of its improvement cannot be established numerically. Teachers are therefore encouraged to adapt rhythmic games to students' characteristics, instructional objectives, and learning environments, while future research should employ consistent, measurable instruments for assessing learning interest to strengthen the evidence concerning the relationship between music- and game-based instruction, learning interest, and rhythmic gymnastics learning outcomes.

References

- Abdullah, K., & Lubis, J. (2020). MODEL PEMBELAJARAN SENAM IRAMA BERBASIS MEDIA PEMBELAJARAN PADA SISWA SMP. 61–68. <https://doi.org/10.21009/jpja.v3i02.16271>
- Dasar, J. P. (2020). Jurnal Pendidikan Dasar.
- Ekonomi, D. A. N. M., Islam, P., Usia, A., & Al-ittihad, S. (2024). JURNAL PENDIDIKAN ISLAM. 2(2).
- Hayati, S. N., & Putro, K. Z. (2021). Bermain dan permainan anak usia dini. 4.
- Ikhsan, I., Wiyanto, A., & Zhanisa, U. H. (2020). Journal of Sport Coaching and Physical Education Penerapan Media Musik Irama Melayu Terhadap Minat Siswa Dalam Materi Senam Ritmik Pada Pembelajaran Penjasorkes Siswa Kelas Viii Smp N 1 Kedungwuni Abstrak. 5(1), 83–88.
- Jamaliah, N., Priyono, B., Hartanto, M., Wahyudi, A., & Aliriad, H. (2025). *Tinjauan Literatur tentang Fungsi Asesmen Awal dalam Perancangan Pembelajaran Pendidikan Jasmani*.
- Jurnal, J., Olahraga, K., Angraini, C., Siregar, S., Ginting, Z. P., & Harahap, L. (2024). Upaya Meningkatkan Minat Siswa SD Dalam Pembelajaran Pjok (Senam Irama). 2(2), 39–41.
- Kurniawan, R., Heynoek, F. P., & Inkai Wijaya, M. A. (2022). Pengembangan Modul Guru Pada Pembelajaran Materi Gerak Dasar Lokomotor Kelas II SDLB Autis. *Jurnal Patriot*, 4(3), 190–206. <https://doi.org/10.24036/patriot.v4i3.856>

- Motivasi, M., & Belajar, S. (2023). PENGGUNAAN MEDIA -AUDIO VISUAL UNTUK. 365–380.
- Multidisiplin, J., Akademik, I., Sugianto, D., Ayu, W., Batuan, K., Sumenep, K., & Timur, J. (2024). ANALISIS PERKEMBANGAN FISIK MOTORIK ANAK USIA 4-5 TAHUN MELALUI KEGIATAN SENAM IRAMA. 1(4), 97–104.
- Nugroho Saputro, I., & Rahayu, T. (2024). *Prosiding Seminar Nasional 2024-Pendidikan Jasmani dan Kesehatan Mental Peserta Didik*.
- Senam, P., & Untuk, I. (n.d.). Pembelajaran senam irama untuk meningkatkan motorik kasar anak kelompok a. 3(2), 80–86.
- Septianti, N., & Afiani, R. (2020). Pentingnya Memahami Karakteristik Siswa Sekolah Dasar di SDN Cikokol 2. *As-Sabiqun*, 2(1), 7–17. <https://doi.org/10.36088/assabiqun.v2i1.611>
- Simamora, N., Sigalingging, G. P., Naipospos, Y. A., Situmorang, F., & Siregar, F. S. (2024). Pengaruh Senam Irama Terhadap Perkembangan Motorik Anak. 3.
- Syarifudin, A. (2020). Pengaruh Minat Belajar Siswa Terhadap Hasil Belajar Siswa di Madrasah Ibtidaiyah Darussalam Sungai Salak Kecamatan Tempuling. 6(1), 76–91.
- Thoriq, M., Akbar, H., Priyohutomo, A., Mu, G., Studi, P., Kepelatihan, P., & Karanganyar, U. M. (2025). PENGGUNAAN MEDIA AUDIO VISUAL DALAM MENINGKATKAN. 25(2), 268–277.
- Tradisional, P., Siswa, B., & Dasar, S. (2020). JURNAL PENDIDIKAN JASMANI OLAHRAGA DAN KESEHATAN Volume 8 No 1 , Edisi 2020 JURNAL PENDIDIKAN JASMANI OLAHRAGA DAN KESEHATAN. 8(1), 7–12.
- Yuliani, R. D., & Hanif, M. (2024). Peran Guru Dalam Pengembangan Motorik Kasar Anak Usia Dini Pada TK Aisyiyah Muhammadiyah Wangandowo. 2, 158–168.