



The Utilization of Audio Media on Rhythmic Movement Applications in Elementary School

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Abstract

This research aims to analyze the effectiveness of using audio media in rhythmical movement learning for 6th-grade students at State Elementary School 1 Guntung Manggis. The study uses a descriptive quantitative approach with instruments consisting of knowledge questionnaires and rhythmic movement skill assessment sheets. The results indicate a variation in students' abilities across several key aspects. In the self-assessment aspect, 50% of students fall into the very high category, making it the highest percentage among all measured aspects. In the movement coordination aspect, only 30% of students are in the very high category, whereas 40% of students are in the low category, indicating ongoing challenges in developing motor skills. For the aspect of rhythm accuracy, 33% of students are in the high category and 27% in the very high category, while 23% of students are in the insufficient category and 17% in the very insufficient category. Meanwhile, in the aspect of understanding movement concepts, the majority of students showed good results, with 37% in the very high category and 33% in the high category. These findings indicate that the use of audio media is effective in improving students' understanding and creativity, particularly in the aspects of self-assessment and understanding movement concepts. However, the aspects of movement coordination and rhythm accuracy still require more varied learning strategies and continuous practice so that students' learning outcomes can be more optimal and equitable across all aspects.



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INTRODUCTION

Education is one of the main means and tools to enhance the intelligence of the nation's life, as it serves as a process that guides citizens towards a better life in the context of the nation and state. (Chandra et al., 2023). One of the efforts to achieve educational goals is through physical education, sports, and health, which have specific characteristics compared to other subjects, namely using movement as a means of learning for students (Soraya, 2024). In this case, the role of the teacher is very crucial as they bear a great responsibility, including physical education teachers who play an important role in conducting evaluations and assessments to ensure the learning process runs optimally. (Salasiah et al., 2020)

A good learning process will yield good results, and the good process itself is the result of thorough planning and correct and precise implementation by a qualified teacher. (A Rakhman, 2016). In the context of physical education learning, the use of audio media plays an important role in supporting the creation of an effective learning process. Audio media not only helps enhance students' creativity in arranging movements but also serves as an effective motivational tool, especially in distance learning that is increasingly popular today. Through music and sound, students can more easily understand beats and rhythms, allowing them to create more innovative and harmonious movements. In addition, audio media also stimulates the students' sense of hearing, which is very important in

movement-based learning, making the learning process more engaging and helping students remember and execute movements better. Thus, the use of audio media that is designed and utilized appropriately by quality teachers will further enhance the quality of students' learning outcomes in physical education. (Fauzan et al., 2024)

Various studies show that the use of audio media in physical education learning can improve student learning outcomes, creativity, and motivation. (Fauzan et al., 2024) states that learning with audiovisual media has become an integral component in the development of learning methods, particularly in physical education and health. Their research shows that the consistent use of audiovisual media contributes positively to the effectiveness of learning, including improvements in material understanding, student participation, and learning motivation. However, they also highlight the need for further research to understand the specific contexts in which this media is most effectively used (Fauzan et al., 2024) This is in line with the need to explore what types of music are most effective for enhancing rhythmic movement skills, particularly with the common 4/4 tempo used in movement education.

(Bernhardin & Rahmani, 2020) finding that students' responses to audio-visual learning media in physical education during the Covid-19 pandemic show an increase in motivation and mastery of the material, even though it is still in the moderate category. This indicates the potential of audio-visual media to enhance

student engagement in remote learning. (Hakim & Basuki, 2023) added that the use of audiovisual effectively encourages physical growth, psychological development, and motor skills in students in basketball, which is relevant to the development of rhythmic movement skills. (Kurniawan et al., 2022) It also proves that the use of audio-visual media can significantly improve the learning outcomes of basketball shooting techniques, reinforcing the role of this media in motor skill learning.

In addition, (Rasyid et al., 2023) developing effective audio-visual based learning media for PJOK that enhances students' understanding and skills. (Pranata et al., 2021) it also reports that video learning media using the ADDIE model can significantly improve volleyball passing skills, indicating that audio-visual media can be applied to various sports and rhythmic movements. (Bernhardin & Rahmani, 2020) reiterate that audio-visual media can enhance student engagement and motivation in distance learning, which is very important in the context of modern education.

(Hakim & Basuki, 2023) adding that audio-visual media helps students master motor skills more quickly and effectively, which is greatly needed in learning rhythmic movements (Fauzan et al., 2024) reaffirming the effectiveness of audio-visual media in enhancing students' creativity, motivation, and learning outcomes in rhythmic movement learning, while also emphasizing the importance of exploring the right types of music to support the learning.

However, there are some difficulties experienced by students in adjusting their movements to the rhythm of the music, such as difficulties in understanding the beat patterns, maintaining tempo consistency, and coordinating movements accurately according to the rhythm being played. Therefore, this research aims to examine the impact of using audio media on students' creativity and rhythmic movement skills, identify the most effective type of music with a 4/4 tempo in learning, and uncover the challenges faced by students in aligning their movements with the rhythm of the music.

The problem statement in this research is first what types of music are effective in improving rhythmic movement skills with a 4/4 tempo. Music with a 4/4 tempo pattern is very commonly used in rhythmic movement learning because the clear and consistent beats make it easier for students to align their movements with the rhythm of the music. Research by (Nurafiaty et al., 2019) It shows that the use of audio-visual media that combines music with a 4/4 tempo can enhance students' creativity in arranging rhythmic gymnastics movements, especially when the music has an easily followable beat like the song 'Disini Senang' used in the learning process. Simple and repetitive 4/4 tempo music provides a strong foundation for students to develop their movement creativity and improve their motor coordination. Additionally, audiovisual media featuring clear and repetitive beat patterns helps students to more easily understand and internalize rhythm, making their movements more harmonious and timely (Nurul et al., 2024).

The second problem formulation is what difficulties students face in adjusting their movements to the rhythm of the music. The main difficulties often experienced by students include understanding music beats, maintaining consistent tempo, and coordinating body movements accurately with the rhythm being played. This is caused by differences in sensory and motor skills among students as well as their experiences in responding to audio stimuli. Research shows that some students require more time to master these skills, especially in integrating movements with complex or changing music beats. Another obstacle that arises is the lack of repetitive practice and the lack of interactive learning media, making it difficult for students to internalize rhythm patterns effectively (Chantanasut, 2024; Nurafiati et al., 2019). Therefore, the appropriate and sustainable use of audio-visual media is highly needed to help students overcome these difficulties and enhance their ability to synchronize movements with the rhythm of the music.

Thus, this research aims to examine the type of music with a 4/4 tempo that is most effective in rhythmic movement learning and to identify the challenges faced by students in matching movements with the rhythm of the music. The results of the research are expected to provide useful empirical information for educators in developing more creative and effective teaching methods using audio media.

To strengthen the introduction, several recent studies also emphasize the effectiveness of audio-visual media in PJOK (Physical Education, Sports, and Health) learning. The use of audio-visual media has

proven effective in increasing student motivation, conceptual understanding, and skills, as well as creating a more interactive and enjoyable learning atmosphere. Media audio visual juga berperan penting dalam membantu siswa mempelajari, menganalisis, dan menginstropeksi gerakan sehingga kualitas teknik gerak siswa meningkat secara signifikan. Audio-visual media also play an important role in helping students learn, analyze, and introspect movements, thereby significantly improving the quality of students' movement techniques. Classroom action research utilizing audio-visual media in rhythmic gymnastics education shows an increase in student learning outcomes from cycle to cycle, reaching a success target of over 88%. Moreover, audio-visual media also help enhance students' skills in performing sports movements, improve the quality of learning, and support optimal learning outcomes. Other studies indicate that the use of digital-based audio-visual media positively impacts the mastery of basic basketball lay-up movements, as well as enhances the affective, cognitive, and conative responses of students in physical education learning.

METHODS

A quantitative descriptive approach is used to statistically analyze the research data, so that changes in student learning outcomes before and after the intervention can be described objectively and measurably. This is in line with the opinions of (Jayusman & Shavab, 2020) that quantitative descriptive research aims to determine the value of independent variables without making comparisons or linking them

to other variables, and the entire process uses numbers from data collection to the presentation of results.

The research instrument consists of a questionnaire on rhythmic movement knowledge for students and a teacher assessment sheet for rhythmic movement skills. The knowledge questionnaire uses a rating scale of 1 to 4 on each indicator, which includes concept understanding, movement recognition, and application of rhythmic movement. The teacher assessment sheet also uses a similar scale to evaluate students' skill aspects. This instrument has been tested for validity and reliability, and is designed to be easy to use in data collection in the classroom. In a similar study, (Mashud & Ihwanto, 2022) using test instruments in the form of multiple-choice questions and observations of attitudes as well as performance to measure the learning outcomes of rhythmic movement activities of elementary school students.

The subject of the research is all 6th-grade students at State Elementary School 1 Guntung Manggis, consisting of 30 students. The object of the research is the knowledge and skills of rhythmic movement of students, which are measured before and after the learning actions. This research is conducted in the 2nd semester of the 2025 academic year. The type of data collected is quantitative data in the form of scores from the questionnaire on rhythmic movement knowledge filled out by students and scores

from the teacher's assessment of students' rhythmic movement skills. This data is numeric and can be statistically processed to objectively illustrate the level of knowledge and skills of the students. Such quantitative data is generally analyzed using descriptive statistics, which aims to describe the collected data as it is without intending to make generalizations (Sofwatillah et al., 2024). Data collection was carried out through two main stages: first, the teacher assessed the students' rhythmic movement skills during the learning practice, and second, the students independently filled out a questionnaire on rhythmic movement knowledge under the teacher's supervision.

Data analysis was conducted descriptively with a quantitative approach by calculating the total score of each student, then determining the average (mean), median, mode, standard deviation, maximum score, and minimum score. Students' scores were then categorized into four categories, 'very high', 'high', 'low', and 'very low' for knowledge, as well as 'very high', 'high', 'low', and 'very low' for skill assessment. The frequency and percentage of each category were calculated to provide an overview of the distribution of students' learning outcomes, to assess the effectiveness of the actions taken. This descriptive quantitative analysis method helps to describe, illustrate, or summarize data constructively and find patterns from a specific sample of data (Sofwatillah et al., 2024)

Participants

Appropriate identification of research participants is critical to the science and practice of psychology and/or

social sciences, particularly for generalizing the findings, making comparisons across replications, and using the evidence in research synthesis and secondary data analysis. Identification of the samples of participants major demographic characteristics for humans, such as age; sex; ethnics and/or racial group; level of education; socioeconomic; generational, or immigrant status; disability status; sexual orientation; gender identity; and language preference as well as important topic-specific characteristics.

Sampling Procedures

Describe the procedures for selecting participants, including (a) the sampling methods if a systematic sampling plan was used; (b) the percentage the sample approached that participated; and (c) the number of participants selected themselves into the sample. Describe the settings and locations in which data were collected as well as any agreement and payment made to participants. When applying inferential statistics, take seriously the statistical power consideration associated with the test of hypothesis.

Materials and Apparatus

In preparing your manuscript, you need to tell the reader about materials (e.g., questionnaires, stimulus words) and apparatus (e.g., devices to record data, surgical implements) that you used. In general, if researchers are likely to be familiar with your materials and

apparatus, you need only mention them. But if you created your own materials, you should give a very detailed depiction of them. If you are using relatively unknown materials or apparatus created by others, you should provide a description of them and indicate to the reader where to obtain them. If you used personality inventories or questionnaires, it is a good idea to indicate levels of reliability reported by previous researchers.

Procedures

This information is likely to merge the actual procedures with the materials and apparatus because it is hard to say what the participants were doing without indicating what they were doing it with. There are some fairly standard elements in the procedure. They include, (a) variables that are manipulated and measured, including independent and dependent variables, (b) any conditions or groups that you intend to compare, (c) how participants are assigned to, or placed in, groups, (d) the role of the researcher in the session, (e) the directions that participants received, (f) the activities in which the participants engaged. Finally, include a statement with the procedure that participants provided informed consent. When you write your own procedure section, you can determine whether to include how you obtained informed consent. Strictly speaking, it is not part of the data collection process, so you can logically argue that it does not belong in this subsection.

RESULT

Table 1. Student Self-Assessment Table and Teacher Assessment

	Student Self Assessment	Coordination of Movement	Rhythm Accuracy	Understanding the Concept of Motion
Category	Presentation	Presentation	Presentation	Presentation
Very high	50%	30%	27%	37%
High	3%	23%	33%	33%
Less	7%	40%	23%	20%
Very Less	40%	7%	17%	10%
TOTAL	100%	100%	100%	100%

Based on the results of the students' self-assessment data processing, the percentage distribution in several aspects shows a variation of different categories. In the overall self-assessment aspect, 50% of students are in the very high category, 3% in the high category, 7% in the low category, and 40% in the very low category. For the movement coordination aspect, 30% of students are categorized as very high, 23% as high, 40% as low, and 7% as very low. In the rhythm accuracy aspect, 27% of students are classified as very high, 33% as high, 23% as low, and 17% as very low. Meanwhile, in terms of understanding the concept of movement, the percentage distribution is 37% very high, 33% high, 20% less, and 10% very low. Thus, it can be seen that although the majority of students show good performance in the aspect of self-assessment in general, there is a significant variation, especially in the

aspects of movement coordination and rhythm accuracy, where there is a relatively high proportion of students in the less and very less categories

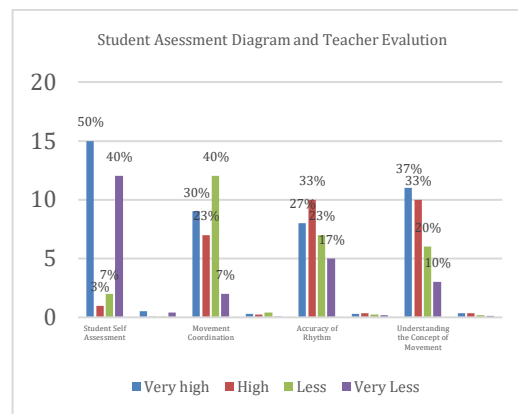


Fig 1. Student Assesment Diagram and Teacher Evaluation

DISCUSSION

Research results show a significant variation in students' abilities in the aspects of self-assessment, movement coordination, rhythmic accuracy, and understanding of movement concepts. Most students demonstrated good performance in the aspect of self-assessment in general, however, in the aspects of movement coordination and rhythmic accuracy, there is still a considerable proportion of students in the categories of lacking and very lacking. This indicates that although students have good self-awareness and reflective abilities, there are challenges in motor and musical skills that need more attention.

Student self-assessment is a self-evaluation process that allows students to independently assess their abilities and

limitations. Based on the results of the student self-assessment, it was found that 50% of students are in the very high category, 3% high, 7% low, and 40% very low. This condition indicates that although most students have a good level of self-confidence and understanding, almost half of the students still feel lacking or very lacking in measuring their own abilities. Effective self-assessment can help students reflectively recognize their strengths and weaknesses, as well as enhance their learning motivation (Inneka et al., 2022). In addition, structured self-assessment accompanied by teachers can develop students' academic awareness and metacognitive skills, enabling them to better manage their learning processes independently (Adolph, 2016). Research (Eviota & Liangco, 2020) it also shows that self-assessment techniques improve the accuracy of students' understanding and encourage continuous improvement in learning foreign languages, indicating that self-assessment is not just an evaluation tool, but also an effective means of reflective learning. Therefore, it is important for educators to integrate self-assessment with appropriate guidance so that students who fall into the categories of poor and very poor can significantly enhance their confidence and learning quality. This process is essential as it can increase learning awareness and motivate students to continuously improve themselves. As explained by (Chandra, Hilmi & Hapsari, 2023), An effectively applied self-assessment technique can enhance students' metacognitive awareness,

enabling them to manage and direct their own learning process, which ultimately significantly improves learning outcomes. Self-assessment encourages students to become more active learners and take responsibility for their own learning progress.

Movement coordination Based on the assessment results of students' movement coordination, it was found that 30% of students fell into the very high category, 23% high, 40% low, and 7% very low. This condition indicates that although the majority of students have good coordination skills, nearly half of the students still need to improve their movement coordination abilities. Recent research by (Badaru et al., 2022) It shows that the use of a structured play model can significantly improve the movement coordination of elementary school-aged children, thus appropriate learning interventions are necessary to assist students who are still in the categories of poor and very poor. In addition, research at State Elementary School 01 Asam Jujuhan also found that the movement coordination skills of the students were in the sufficient category, emphasizing the need for further development through targeted physical activities. Therefore, teachers need to implement innovative and enjoyable teaching methods to enhance students' overall movement coordination skills, the ability to integrate various body movements into a harmonious, effective, and efficient movement pattern in line with the desired objectives. Understanding movement

concepts is a cognitive aspect that includes knowledge of the principles, objectives, techniques, and mechanisms of movement. This understanding allows students to perform movements correctly and make corrections to any mistakes that occur, making learning effective and safe. With a good understanding of the concepts, students not only perform movements mechanically but also consciously and purposefully (Noprita et al., 2024), that improves the quality of learning and the results achieved (Putri, 2024). Coordination involves a reciprocal relationship between the central nervous system and the motor apparatus, allowing for the precise regulation of impulses and muscle work to execute movement. The main components of coordination include movement structure, rhythm, smoothness, inter-movement relations, accuracy, constancy, tempo, and range of motion. Good coordination allows complex movements to be performed smoothly without excessive energy expenditure, as seen in tennis athletes who can move towards the ball while swinging the racket with the correct technique. (Badaru et al., 2022)). Coordination training can be carried out through games and physical activities that involve the integrated control of body movements. Therefore, coordination is a complex biomotor skill that is very important in the development of basic and advanced motor skills in children.

Rhythm accuracy is the ability to consistently and accurately follow tempo and rhythm patterns in rhythmic

activities, such as dancing, playing music, or rhythmic sports. Based on the assessment results of the students' rhythm accuracy, data shows that 27% of students are in the very high category, 33% in the high category, 23% in the insufficient category, and 17% in the very insufficient category. This indicates that the majority of students have good rhythm accuracy skills, but there are still about 40% of students who need improvement in this aspect. Research by (Adolph, 2016) finding that structured rhythm exercises can significantly improve the rhythm accuracy of elementary school students, so appropriate learning interventions are crucial to enhance students' musical abilities. Additionally, (Inneka et al., 2022) emphasizes that the development of rhythmic accuracy not only improves musical skills but also contributes to enhanced concentration and motor coordination among students. Therefore, teachers need to implement innovative and sustainable music learning methods so that students who are categorized as below average and very poor can optimally improve their rhythmic accuracy. Rhythmic accuracy supports the synchronization of movement with music or specific patterns, making the movements harmonious and orderly. This ability is closely related to fine motor and sensory coordination, allowing students to control timing and movement patterns with precision. Rhythmic accuracy also plays a role in the development of musicality and rhythmic motor skills, making it very important in art and sports education (Hasani et al., 2021).

Understanding the concept of movement is a cognitive aspect that includes knowledge about the principles, purposes, techniques, and mechanisms of movement. Based on the assessment results of students' rhythm accuracy, it was found that 37% of students are in the very high category, 33% in the high category, 20% in the low category, and 10% in the very low category. This data indicates that most students have fairly good rhythm accuracy skills, but there are still about 30% of students who need improvement in this aspect. Research by (Adolph, 2016) states that systematic and continuous rhythm training can significantly improve the rhythmic accuracy and musical skills of elementary school students. In addition, a study by (Inneka et al., 2022) emphasizes that the development of rhythmic accuracy also contributes to the improvement of motor coordination and students' concentration, which has a positive impact on the overall learning process. Therefore, it is important for educators to apply innovative and enjoyable music learning methods so that students who are in the less and very less categories can optimally improve their rhythmic accuracy skills. This understanding enables students to perform movements correctly and make corrections to errors that occur, making learning effective and safe. With a good understanding of the concepts, students not only perform movements mechanically but also consciously and purposefully, which enhances the quality of learning and the results achieved. (Nurwahidah, 2022).

The findings of this research reinforce the theory that self-assessment plays an important role in enhancing students' awareness and learning motivation (Chandra, Hilmi & Hapsari, 2023). However, the results that show the gap in the aspects of movement coordination and rhythm accuracy correct the assumption that all aspects of skills develop evenly.

An important new aspect of this research is the difference in achievement between the cognitive aspect (understanding concepts) and the motor aspect (coordination and precision of rhythm). This demands a holistic and integrated learning approach, which emphasizes not only theoretical aspects but also practice and the simultaneous development of motor skills. The impact of this research provides an insight for educators to adjust learning strategies, particularly in enhancing students' motor and musical skills to be more balanced and comprehensive.

CONCLUSION

Based on the results of self-assessment by students and teacher evaluations on the aspects of movement coordination, rhythm accuracy, and understanding of movement concepts, it was found that there is a quite significant variation in abilities among students. In the aspect of self-assessment in general, the majority of students (53%) rated themselves in the very high and high categories, but there are still 47% of students in the lacking and very lacking

categories. This indicates a difference in levels of self-confidence and reflective awareness among students.

In the aspect of movement coordination, the proportion of students in the below average and very below average categories reaches 47%, indicating that nearly half of the students still need improvement in basic motor skills. Meanwhile, in the aspect of rhythm accuracy, around 40% of students also remain in the below average and very below average categories, indicating the need for reinforcement in rhythm learning and musical activities. Conversely, in the aspect of understanding movement concepts, the majority of students (70%) fall into the very high and high categories, showing that the cognitive aspect of students is relatively better compared to the motor aspect.

These findings reinforce the theory that self-assessment can enhance students' awareness and motivation to learn, but also indicate that the development of motor and musical skills does not always align with the development of cognitive aspects. Therefore, a more holistic and integrated learning approach is needed, which does not only emphasize theoretical aspects but also practice and the simultaneous development of motor skills. Teachers are advised to implement innovative, enjoyable, and activity-oriented learning methods focused on physical and musical activities to improve students' movement coordination and rhythm accuracy.

In addition, this study also demonstrates the importance of guidance and mentoring in the self-assessment process so that students in the below-average and very poor categories can optimally improve their self-confidence, motor skills, musical abilities, and understanding of movement concepts. Further research is suggested to explore the factors causing difficulties for students in certain aspects and to test the effectiveness of learning methods developed based on the results of self-assessment.

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REFERENCES (Times New Roman 12)

- a Rakhman. (2016). *Perancangan Sistem Pembelajaran Penjasorkes Sekolah Dasar Berbasis Kearifan Lokal Permainan Tradisional Urang Banjar*. 1–23.
- Adolph, R. (2016). 濟無No Title No Title No Title. 2, 1–23.
- Badaru, B., Azis, I., Hasanuddin, M. I.,

- Farhana Nurulita, R., Indah, N., & Anwar, A. (2022). *LP2M-Universitas Negeri Makassar Model Permainan Untuk Meningkatkan Koordinasi Gerak Anak Usia Sekolah Dasar*.
- Bernhardin, D., & Rahmani, A. R. (2020). Pembelajaran On-Line : Penggunaan Media Pembelajaran Audio Visual Berbasis Digital terhadap Penguasaan Gerak Dasar Lay Up. *Jpoe*, 2(2), 260–266. <https://doi.org/10.37742/jpoe.v2i2.119>
- Chandra, Hilmi, H. S., & Hapsari, T. P. R. N. (2023). Implementation of Self-Assessment Techniques as Learners in Compulsory Indonesian Language Courses. *KEMBARA Journal of Scientific Language Literature and Teaching*, 9(2), 482–500. <https://doi.org/10.22219/kembara.v9i2.26503>
- Chandra, M. P., Lubis, M. A., Studi, P., & Jambi, U. (2023). 1, 2, 3. 6(2), 109–119.
- Chantanasut, T. (2024). Developing and Evaluating a Rhythm Reading Practice Kit: A Study on Learning Outcomes and Music Learners Satisfaction in Music Education Using Quantitative Analysis. *Journal of Applied Data Sciences*, 5(4), 2092–2102. <https://doi.org/10.47738/jads.v5i4.471>
- Eviota, J. S., & Liangco, M. M. (2020). Jurnal Pendidikan MIPA. *Jurnal Pendidikan*, 14(September), 723–731.
- Fauzan, M. G., Rahmat, A., & Carsiwan, C. (2024). Pembelajaran media audio visual dalam Pendidikan Jasmani: Systematic literatur review. *Bravo's: Jurnal Program Studi Pendidikan Jasmani Dan Kesehatan*, 12(2), 148–158. <https://doi.org/10.32682/bravos.v12i2/27>
- Hakim, R., & Basuki, S. (2023). Pemanfaatan audio visual dalam pembelajaran ketrampilan bola basket. *Multilateral : Jurnal Pendidikan Jasmani Dan Olahraga*, 22(4), 107. <https://doi.org/10.20527/multilateral.v22i4.16454>
- Hasani, I., Wahyudi, E., & Bayu, A. T. (2021). Analisis Penerapan Senam Irama di SDIT Raflesia untuk Kebugaran dan Kreativitas Siswa. 33–40.
- Inneka, L., Adinugraha, F., & Silalahi, M. (2022). Instrumen Penilaian Diri Siswa untuk Mengukur Sikap dan Aktivitas Siswa saat Pembelajaran Daring Biologi. *Jurnal Al-Qalam*, 23(2), 11–24. <https://ojs.unsiq.ac.id/index.php/al-qalam>
- Jayusman, I., & Shavab, O. A. K. (2020). Aktivitas Belajar Mahasiswa Dengan Menggunakan Media Pembelajaran Learning Management System (Lms) Berbasis Edmodo Dalam Pembelajaran Sejarah. *Jurnal Artefak*, 7(1), 13. <https://doi.org/10.25157/ja.v7i1.3180>
- Kurniawan, Y., Subandowo, & Rohman, U. (2022). Pengaruh Penggunaan Media Audio Visual terhadap Peningkatan Hasil Shooting Bola Basket dalam Pembelajaran PJOK Siswa MAN Kota Surabaya. *Jurnal*

- Pendidikan Kesehatan Rekreasi*, 8(1), 231–236.
- Mashud, M., & Ihwanto, N. (2022). Upaya Meningkatkan Hasil Belajar Aktivitas Gerak Berirama Siswa Kelas V Melalui Google Meet Dengan Memanfaatkan Video Pembelajaran Saat Pandemi Covid-19. *Jendela Olahraga*, 7(1), 35–49. <https://doi.org/10.26877/jo.v7i1.8604>
- Noprita, V., Bakhtiar, S., Asnaldi, A., Olahraga, P., Keolahragaan, F. I., & Padang, U. N. (2024). *Kemampuan Koordinasi Gerak Dasar Siswa Kelas III Di Sekolah Dasar Negeri 01 Asam Jujuhan , Kabupaten Dharmasraya*. 7(11).
- Nurafiaty, S., Makorohim, M. F., & Dwi, A. (2019). *Peningkatan Kemampuan Kreativitas Merangkai Gerakan Senam Ritmik dengan Alat Simpai melalui Media Audio Visual pada Siswa SMP Khadijah Makassar*. 2(1).
- Nurul, R., Retnawulan, S., Budiman, A., Studi, P., Tari, P., Indonesia, U. P., & Bandung, K. (2024). *Kreativitas Gerak Tari Dengan Stimulus Media Audio Visual*. 4(3), 494–509.
- Nurwahidah, I. (2022). Analisis Pemahaman Konsep Gerak dan Gaya Pada Mata Kuliah Fisika Dasar. *Jurnal Jendela Pendidikan*, 2(01), 93–100. <https://doi.org/10.57008/jjp.v2i01.151>
- Pranata, K. M. A., Wahjoedi, H., & Lesmana, K. Y. P. (2021). Media Pembelajaran PJOK Berbasis Audio Visual pada Materi Shooting Bolabasket. *Jurnal Ilmu Keolahragaan Undiksha*, 9(2), 82. <https://doi.org/10.23887/jiku.v9i2.37430>
- Putri, S. S. (2024). *Gerak Benda Setelah Penerapan Model Pembelajaran Discovery Berbantuan Lkpd*. 4(10). <https://doi.org/10.17977/Um067.V4.I10.2024.4>
- Rasyid, I., Simatupang, N., & Harahap, novita sari. (2023). Penggunaan Media Pembelajaran Pjok Berbasis Audio Visual Pada Materi Smash Bola Voli. *Jurnal Unigha*, 192–202. <http://journal.unigha.ac.id/index.php/SemNas/article/view/1895/1345>
- Salasiah, Rahmadi, & Irianto, T. (2020). Instrumen Penilaian Harian Aspek Kognitif Pendidikan Jasmani Olahraga Dan Kesehatan. *Stabilitas: Jurnal Pendidikan Jasmani Dan Olahraga*, 1(1), 25–31.
- Sofwatillah, Risnita, Jailani, M. S., & Saksitha, D. A. (2024). Teknik Analisis Data Kuantitatif dan Kualitatif dalam Penelitian Ilmiah. *Journal Genta Mulia*, 15(2), 79–91.
- Soraya, N. (2024). Upaya Meningkatkan Hasil Belajar Senam Irama Melalui Media Audio Visual. *Journal of S.P.O.R.T*, 8(1), 324–340. <https://doi.org/10.37058/sport>