COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 ‖ Volume 18, Number 2, 2026 ‖ P.3578-3586

Efforts To Improve Backward Roll Gymnastics Learning Outcomes Through The Application Of Audio-Visual Learning Media

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ABSTRACT

This research is motivated by the low learning outcomes in backward roll floor gymnastics among the eleventh grade 6 students of SMAN 2 Martapura, where only 17.14% (6 out of 35 students) achieved scores above the Minimum Completeness Criteria (75) with a class average of 36.5. The purpose of this research is to describe the application of audio-visual learning media in the learning process of backward roll floor gymnastics in improving student learning outcomes through the implementation of this media in class XI 6 SMAN 2 Martapura. This research is a Classroom Action Research (CAR) conducted in two cycles. The action applied is the use of audiovisual learning media in the form of a backward roll learning video. Data collection techniques use observation, performance tests, and documentation. The research results show a significant increase: in Cycle I, mastery reached 62.86% (average 63.80), and in Cycle II it increased to 85.71% (average 80.00), surpassing the success indicator of 75%. Thus, the implementation of audiovisual learning media is proven to be effective in improving the learning outcomes of backward roll floor gymnastics among XI 6 grade students at Senior High School 2 Martapura.

ARTICLE HISTORY
Received: 2026/05/12
Accepted: 2026/05/20
Published: 2026/05/25

KEYWORDS
Floor Gymnastics;
Backward Roll;
Audio Visual;
Learning Media;
Classroom Action Research.

AUTHORS' CONTRIBUTION
A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Dewi, R.A.; Arifin, S.; Busriansyah, B.; Setiawan, W.; Muis, K.; Santoso, S. (2026). Efforts To Improve Backward Roll Gymnastics Learning Outcomes Through The Application Of Audio-Visual Learning Media. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 18 (2), p.3578-3586

INTRODUCTION

Physical Education, Sports, and Health (PJOK) is one of the important components in the national education system that functions to develop students' potential holistically, covering physical, cognitive, affective, and psychomotor aspects. Over time, PJOK learning is directed to be more student-centered by emphasizing the development of motor skills, improving physical fitness, as well as forming the Pancasila student profile through meaningful and contextual activities (Syafruddin et al., 2022).

One of the mandatory materials in Physical Education learning at the Senior High School level is the floor exercise backward roll (back roll). This movement requires the

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integration of balance, coordination, flexibility, and muscle strength, making it a relatively complex movement that requires mastery of the correct technique. (Syafei et al., 2023) revealed that floor exercises, including backward rolls, often become material that causes obstacles in the learning process, both due to psychological factors such as fear and lack of self-confidence, and technical factors resulting from limited methods and teaching media used by teachers. Self-learning is a process that produces changes in an individual's abilities and behaviors as a result of experience and interaction with the environment (Faizah & Rahmat, 2024). According to Bloom (sudjana, 2020), learning outcomes are classified into three domains, namely cognitive, affective, and psychomotor, where in physical education learning all three interact integrally with the main emphasis on the psychomotor domain. Factors that affect learning outcomes include internal factors such as the physical and psychological condition of students, as well as external factors such as teaching methods and the use of learning media (M. Dalyono 2021, n.d.)

The actual conditions found in the field based on initial observations during the Field Experience Practice (PPL) in class XI 6 SMAN 2 Martapura show a picture far from ideal conditions. Of the 35 students, only about 17.14% or 6 students were able to achieve scores above the KKTP (75), with a class average score of only 36.5. Students seemed reluctant to try backward roll movements, easily gave up, and were less actively involved. Learning still tended to be monotonous because the teacher provided verbal explanations and direct demonstrations without visual media support, so students might have difficulty understanding the movement stages systematically. As in the study (Rossi et al., 2023), through appropriate learning strategies, teachers can create a more engaging learning atmosphere so that students can enjoy the learning process because they gain direct experience in understanding the material taught.

Starting from this problem, the researcher chose the implementation of audiovisual learning media as an action solution. Audiovisual media is a learning medium that presents information through a combination of sound and image/video elements simultaneously, allowing the demonstration of movements to be presented in a concrete, systematic, repetitive way, and from various perspectives. This is supported by Paivio's dual coding theory (Arsyad et al., 2016), which states that learning will be more effective when information is presented simultaneously in two forms, namely verbal and visual. Several previous studies reinforce this choice of action. (Badriyah et al., 2024) reported that the implementation of audiovisual media in the PTK back roll increased completeness from 21.74% to 86.96% in Cycle II. (Yuliati et al., 2023) also found that audiovisual media has a significant effect on learning outcomes in floor gymnastics with an increase in scores from 6.65 to 8.30 (significance 0.000 < 0.05). Based on this description, this study was conducted with the formulation of the problems: (1) How is the application of audiovisual learning media in improving the learning process of backward roll floor gymnastics in class XI 6 SMAN 2 Martapura? (2) Can the application of this media improve students' learning outcomes?

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METHODS

This research is Classroom Action Research (CAR) which is collaborative and participatory in nature, referring to the Kemmis and McTaggart model consisting of four stages: Planning, Acting, Observing, and Reflecting.

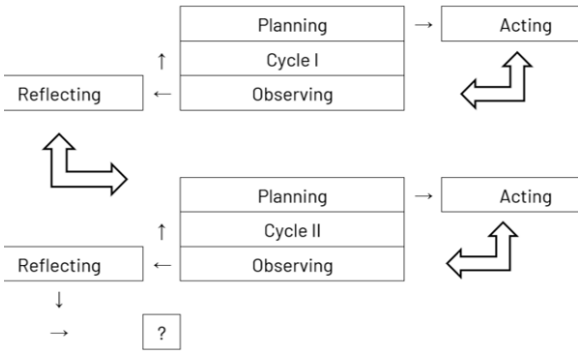

Figure 1.
Classroom Action Research Design (Arikunto et al., 2021)

This research was conducted at SMAN 2 Martapura with the research subjects being the students of class XI 6 in the Even Semester of the 2025/2026 Academic Year. The number of students involved was 35, consisting of 21 male students and 14 female students. The sampling technique used in this study was total sampling, so all students in class XI 6 were used as research subjects. The selection of this class was based on the results of an initial observation which showed that the students' ability in the floor exercise backward roll material was still low. This can be seen from the learning completeness percentage which only reached 17.14%, so most students have not met the Learning Achievement Criteria (KKTP ≥ 75).

The data collection technique used performance tests with a rubric of three aspects (Initial Attitude score 1–3, Implementation score 1–4, Final Attitude score 1–2; maximum score 9), observation (teacher and student activities), and documentation. The final score is calculated using the formula: Score = (Total Score/9) × 100. Students are considered to have completed the task if they obtain a score ≥ 75. The data analysis uses comparative descriptive, comparing pre-cycle data, Cycle I, and Cycle II. The research is declared successful if at least 75% of students achieve the KKTP score (75).

RESULTS AND DISCUSSION

Result

Pre Cycle

The initial research data (pre-cycle) was obtained through the implementation of a backward roll skill test conducted before the application of actions to the XI 6 grade students of SMAN 2 Martapura. Based on the pre-cycle results, students' ability to perform the backward roll movement still did not meet the predetermined learning completeness target. Out of a total of 35 students, only 6 students (17.14%) were able to achieve the completeness score with a score ≥ 75, while the remaining 29 students

(82.86%) had not yet completed it. The class average score in the pre-cycle stage of 36.5 indicates that students' learning outcomes were still in the low category, so improvements in the learning process through more effective actions were needed.

The low achievement of learning outcomes at the pre-cycle stage is evident from the fact that many students are still unable to perform the backward roll movement according to the established assessment indicators. Some of the mistakes found include an incorrect initial position, insufficient hand support strength, poor coordination during the rolling movement, and an unbalanced final posture. In addition, some students also appear hesitant and lack confidence when practicing the backward roll, resulting in the technique not being executed optimally.

The results of the pre-cycle indicate that the percentage of students' learning completeness is still far below the research success criteria. This condition indicates the need for improvement efforts in learning so that students' abilities in the material of backward rolling floor exercises can improve. Therefore, a more innovative, interesting learning action is needed, one that can help students both understand and practice the backward roll movement better.

Table 1.
Pre-Cycle Result Data

Category	Number of Students	Persentase	Description
Complete (≥ 75)	6	17,14%	Complete
Incomplete (< 75)	29	82,86%	Incomplete
Class Average Score	**36,5**		

In the initial pre-cycle condition, out of 35 students in class XI 6, only 6 students (17.14%) managed to achieve a completeness score of ≥ 75, while 29 students (82.86%) had not yet reached learning completeness. The class average score of 36.5 indicates that the students' ability to perform backward roll movements is still low. This data shows that most students are still experiencing difficulties in performing the backward roll technique correctly, so corrective learning actions are needed to improve students' learning outcomes in the material of floor gymnastics backward rolls.

Cycle I

Cycle I was carried out in two meetings in April 2026. In the first meeting, the learning activity was opened with an apperception and structured warm-up focusing on the flexibility of the neck, back, and wrists. Entering the main activity, the teacher played a learning video of the backward roll through a projector to all students. The students' enthusiasm appeared to increase significantly, especially when the video clearly showed the details of the movement techniques, starting from the symmetrical hand support, the position of the head that must be lowered, to the leg push that is the key to the success of the roll movement. After the video presentation was completed, the teacher opened a question-and-answer session that was active and interactive, where several students enthusiastically asked questions about the correct techniques. The students then tried to practice the movements gradually in pairs with direct guidance from the teacher, starting from practicing the initial position to practicing a full roll.

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In the second meeting, learning focused on the deepening and consolidation of movements individually. Students were given broader opportunities to practice independently, while the teacher actively provided individual feedback to each student based on specific errors identified in the first meeting. Generally, students appeared more courageous and confident in trying the movements compared to the previous meeting. At the end of the second meeting, a performance test was conducted to measure psychomotor skill achievement, as well as a written test to assess students' cognitive understanding as a comprehensive measure of learning outcomes for Cycle I. The results of the Cycle I tests are presented in Table 2.

Table 2.
Cycle I Results Data

Category	Number of Students	Persentase	Description
Complete (≥ 75)	22	62,86%	Complete
Incomplete (< 75)	13	37,14%	Incomplete
Class Average Score	**63,80**		

There was a significant increase from the pre-cycle: the number of students achieving mastery increased from 6 students (17.14%) to 22 students (62.86%), and the class average rose from 36.5 to 63.80. However, the percentage of mastery has not yet met the success indicator (75%), so the study continued to Cycle II. Reflection identified weaknesses: (1) 13 students had not yet achieved mastery, especially in the Implementation and Final Attitude aspects; (2) individual practice time was insufficient; (3) the video did not yet show a specific error analysis.

Cycle II

The learning outcome data in Cycle II were obtained through a backward roll skills test after implementing learning improvement actions based on the reflections of Cycle I. The test results showed a significant increase compared to the previous cycle, where out of 35 students in class XI 6, 30 students (85.71%) had achieved learning mastery with scores ≥ 75, while 5 students (14.29%) had not yet mastered the material. The class average score also increased to 80.00, indicating that the students' learning outcomes were in the good category and met the research success indicators. This improvement is evident from the students' better ability to perform the backward roll, starting from the initial position, hand support, coordination during the roll, to a more balanced final posture, as well as increased students' self-confidence when practicing the movement. The Cycle II test results are presented in Table 3.

Table 3.
Cycle II Results Data

Category	Number of Students	Persentase	Description
Complete (≥ 75)	30	85,71%	Complete
Incomplete (< 75)	5	14,29%	Incomplete
Class Average Score	80,00		
Highest Score	**100,00**		

The results obtained in Cycle II showed that the learning actions provided were able to significantly improve student learning outcomes. The percentage of learning

Rossi Apriliani Dewi[1A-E*], Syamsul Arifin[2B-D], Busriansyah[3B-D], Wawan Setiawan[4B-D], Khairul Muis[5B-D], Santoso[6B-D]
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completeness reaching 85.71% has exceeded the research success criteria set, namely at least 75% of students achieving a completeness score ≥ 75. Thus, the learning actions implemented are declared successful in improving floor gym back roll learning outcomes for 11th grade 6 students at SMAN 2 Martapura.

Discussion

The comparison of data for the entire cycle is presented in Table 4 below.

Table 4.
Recapitulation Data of Learning Outcomes Pre-Cycle, Cycle I, and Cycle II

Aspect	Pre-Cycle	Cycle I	Cycle II
Number of Students Completed	6	22	30
Percentage of Completion	17,14%	62,86%	85,71%
Class Average Score	36,5	63,80	80,00
Lowest Score	11,11	33,33	44,44
Highest Score	77,78	88,89	100

The data in Table 4 shows a consistent and significant increasing pattern. The completion percentage increased from 17.14% (pre-cycle) to 62.86% (Cycle I), and finally 85.71% (Cycle II), surpassing the success indicator of 75%. The class average score increased from 36.5 to 63.80 and then 80.00, exceeding the KKM (75). We can see the graph in Figure 2.

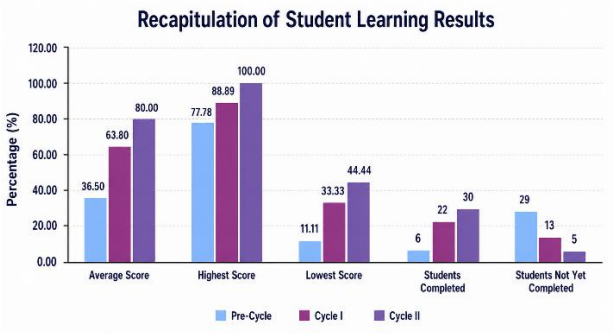

Figure 2.
Recapitulation Chart of Student Learning Results Pre-Cycle, Cycle I, and Cycle II

The graph above shows a consistent upward trend in all learning outcome indicators from the pre-cycle, Cycle I, to Cycle II. The class average score increased gradually from 36.50 to 63.80, and finally reached 80.00, surpassing the predetermined KKM threshold (75). The highest score also increased from 88.89 in Cycle I to 100.00 in Cycle II, while the lowest score also rose from 11.11 to 44.44, indicating that even students with the lowest abilities experienced significant improvement. From the perspective of classical completeness, the number of students who achieved mastery increased significantly from only 6 students (17.14%) in the pre-cycle to 22 students (62.86%) in Cycle I, and reached 30 students (85.71%) in Cycle II. Thus, the research success indicator set at a minimum of 75% classical completeness was achieved in Cycle II, so this classroom action research is declared successful.

This increase is in line with the constructivist learning theory which states that learning is an active process of constructing knowledge through experience and

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environmental interaction (Masgumelar & Mustafa, 2021). Audiovisual media acts as a mediation tool that helps learners visualize abstract movements into concrete ones. This is consistent with Paivio's dual coding theory (Arsyad et al., 2016) bahwa belajar lebih efektif ketika informasi disajikan secara bersamaan dalam bentuk verbal dan vithat learning is more effective when information is presented simultaneously in verbal and visual forms.

The improvement in students' backward roll skills from (68.5%) in Cycle I to (84.2%) in Cycle II shows that audiovisual media successfully created a more conducive and motivating learning environment. The improvements in Cycle II actions, particularly grouping based on ability, were proven effective in implementing scaffolding according to Vygotsky's Zone of Proximal Development (ZPD) (Wati Eka Putri, 2024). Thus, the combination of audiovisual media and adaptive learning strategies was empirically proven to significantly enhance learning outcomes in floor gymnastics backward rolls.

CONCLUSION

Based on the implementation of classroom action research and the results of the data discussion obtained, it can be concluded that the application of audiovisual learning media in teaching backward roll floor gymnastics to students of class XI 6 SMAN 2 Martapura was carried out well, directed, and systematically through two complementary learning cycles to improve the learning process. The use of audiovisual media has been proven to help students understand the sequence and technique of the backward roll more easily because the material is presented through video presentations that can be directly observed, allowing students to quickly imitate and practice the movements accurately. In addition to aiding material comprehension, the use of audiovisual media also makes learning more interesting and enjoyable, thereby increasing students' attention, enthusiasm for learning, motivation, and active participation during the learning process.

Based on the results of the research that has been conducted, the implementation of audiovisual learning media has proven to be able to improve the learning outcomes of backward roll floor exercise in students. This can be seen from the increase in the percentage of learning completeness in each learning cycle, which occurs gradually and significantly. In the initial condition or pre-cycle, the students' learning completeness level only reached 17.14%, then increased to 62.86% in Cycle I, and increased again to 85.71% in Cycle II. Not only that, the class average score also experienced quite good development, from 36.5 in the pre-cycle stage to 80.00 at the end of Cycle II. With the achievement of the previously established success indicators, the use of audiovisual learning media can be declared effective and successful in improving the learning outcomes of backward roll floor exercise in 11th grade students of class XI 6.

Based on the research conclusions, several suggestions can be conveyed, namely: (1) For PE teachers, audiovisual learning media should be used consistently in the learning process, especially for movement skills materials that are quite difficult, and combined with appropriate learning strategies, such as grouping students based on their abilities,

so that learning becomes more effective and learning objectives can be achieved optimally. (2) For schools, it is expected to continue supporting the implementation of technology-based learning by providing adequate audiovisual facilities and infrastructure as an effort to improve the quality and standard of education. (3) For future researchers, this study is expected to serve as a reference in developing classroom action research that uses more innovative and varied learning media, both for floor gymnastics materials and other PE learning materials.

ACKNOWLEDGMENTS

The researcher expresses gratitude to Dr. Hidayah Ansori, M.Si., as the PPG Coordinator at Lambung Mangkurat University, Dr. H. Syamsul Arifin, M.Pd., as the Field Supervising Lecturer, Khairul Muis, S.Pd. and Wawan Setiawan, S.Pd., as the Supervising Teachers, and Busriansyah, M.Pd., as the Principal of SMA Negeri 2 Martapura, who have provided support, guidance, and facilities during the implementation of this research. Thanks are also conveyed to all students of class XI-6 at SMA Negeri 2 Martapura in the 2025/2026 Academic Year for their participation during the research.

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