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The Implementation of Flip Book-Based Audio-Visual Media in the Learning Basketball Lay-Up Shoot

Yopi Meirizal¹, Sumbara Hambali^{2*}, Dhani A Zakaria³, Yudi Hidayat⁴, Dindin Bernhardin⁵

^{1,2,3,4,5} Physical Education, Health and Recreation, STKIP Pasundan, Indonesia.

*Corresponding Author: Sumbara Hambali, e-mail: sumbarahambali8@gmail.com

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Abstract

Objective. Many universities have reported that the basketball learning process is unstimulating and repetitive. This study aims to introduce a novel approach to basketball learning by investigating the impact of flip book-based audio-visual media on the learning outcomes for lay-up shots in basketball games. The research will focus on determining the effectiveness of this approach in enhancing the learning process and improving the overall performance of players in basketball games.

Materials and Methods. The study employed a one-group pretest-posttest design with an experimental approach to examine the effects of basketball learning courses on the lay-up shoot skills of 30 students belonging to the PJKR STKIP Pasundan Class of 2021. Cluster random sampling was used to select the participants from the original population of students. A test was conducted to evaluate the movement process of basketball lay-up shoot skills, and the data analysis was performed using a t-test approach with the IBM SPSS 25 program.

Result. The study's findings revealed a statistically significant difference between the pretest and posttest values. The average value of the difference was -1.371, with a standard deviation of 0.907, and a calculated t-value of -11.575 with a degree of freedom of 29. The significance value obtained (2-tailed) was 0.000, indicating that the difference was significant at 0.05. The posttest value was greater than the pretest value.

Conclusion. Based on the findings, it can be inferred that fundamental lay-up shooting skills in basketball games can be significantly enhanced through the utilization of flip book-based audio-visual media. This suggests that there is a need for educational instructors, including lecturers, teachers, and students alike, to adopt innovative teaching approaches that promote student motivation and optimize teaching and learning interactions.

Keywords: Basketball, Flip Book, Lay-Up Shoot, Audio-Visual Media

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Introduction

With its fast-paced action and exciting gameplay, basketball has become one of the most beloved sports, particularly among school and college students. Its popularity continues to grow, as more and more people discover the thrill of dribbling, passing, and shooting their way to victory on the court (Malik & Rubiana, 2019). The game of basketball is experiencing rapid growth with the emergence of bigger teams, more student-athletes at school and college levels, and basketball competitions for middle and high school students (Sitepu, 2018). Basketball game techniques generally consist of passing, dribbling, shooting, and rebounding (Komarudin et al., 2012). These four techniques must be mastered so that a person can become a good basketball player. One of the basic techniques in the game of basketball which is the most important element and must be mastered is the shooting technique (Boddington et al., 2019).

There are several basic shooting techniques, in general, the basic shooting techniques have a type of goal, namely one-hand set shoot, free throw, jump shoot, and three-point shoot. , Hook Shoot, Lay-up shoot, Runner (Erčulj et al., 2010; Tran & Silverberg, 2008; Wissel, 2018). The highest percentage of shots are deep shots, such as lay-ups, made by an offensive player who is within about one meter of the basket (Alfian et al., 2021), positions close to the basket usually have the highest shot accuracy (percentage of balls going in), 55 to 60 percent of all their shot attempts are successful (Oliver, 2008; Ramadan et al., 2021).

Based on research in the field and theoretically, there are still many students, especially those who perform the lay-up shoot movement who are still not good (Damanik & Mehaga, 2022). Many errors occur in terms of foot coordination, number of steps (Rahmat et al., 2022), and coordination between feet and hands can be seen from the number of students who take shots flying only one step and some more than two steps (Wiyaka et al., 2019), because there are still many students who cannot differentiate between a jump shoot and a lay-up shoot, students often forget the coordination of steps and a lay-up shoot, so students often take inappropriate steps (Sanjaya, 2019). When a basketball player takes more than three steps, it can result in traveling. Although lay-up skills are an effective and simple technique, many students struggle with them. Therefore, researchers must find a solution to this issue, as it may impact their abilities in the future. Students are the next generation and will be responsible for teaching others in their schools. If they are proficient in performing these techniques, they can set a good example for their peers. However, if they struggle with these skills, they may not be

able to become the teachers they hope to be. One solution is to use audio-visual media, such as flip books, to make it easier for students to learn lay-ups.

Flip books represent a relevant technological medium in the context of current advances. The integration of technology in education stands as an alternative to enhance the quality and quantity of educational outcomes and processes, encompassing learning resources. This integration requires that both teachers and students actively use educational technology in the learning process. In this context, teaching media assumes a paramount role in the educational world, as it not only serves as a tool but also as a means of transmitting educational messages effectively.

Flip books are digital recreations of traditional books that allow users to interact with and navigate through the content electronically (Putri et al., 2020). If books generally consist of a collection of paper which can contain text or images, then this book contains digital information which can also be in the form of text or images (Setiyo et al., 2018). A flip book is a book in a format with lined images, complete illustrations or photos on each page that tend to be brought to life by giving the illusion of movement (Shcherbina, 2016). Utilizing flip books as a learning medium offers several benefits, including the simplification of basketball learning processes and the attraction of student interest. In order to enhance the fundamental basketball lay-up shooting movement skills of students, it is imperative to introduce appropriate learning media.

Materials and Methods

Study participant.

The study was conducted at STKIP Pasundan and targeted all the students taking the Basketball Learning course under PJKR program. To carry out the sampling, the researcher employed a cluster random sampling technique, where one class was selected at random out of 10 classes. Eventually, class 2C PJKR STKIP Pasundan with a sample size of 30 students was chosen.

Study organization.

The researchers utilized an experimental method with a one-group pre-test and post-test design to conduct their research. This particular design involved a pre-test being administered prior to the treatment, which helped in obtaining more accurate treatment results as they could be compared with the post-treatment situation (Sugiyono, 2017).

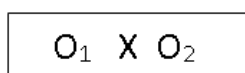


Figure 1. One Group Pretest-Posttest Design

Study analysis

In this research, the author employed a test to evaluate the performance of the lay-up shooting technique in basketball. The evaluation was based on the author's field observations of the lay-up shooting movement by students using predefined criteria. The collected data was analyzed using a statistical approach, specifically a t-test, with the aid of the SPSS IBM 26 program to determine the effectiveness of using flip book media.

Results

The researcher conducted a study on the lay-up shoot skill test in basketball and collected data to evaluate the impact of using flip book media as a learning tool for students.

Table 1. Description of Lay-up Shoot Skill Test Results

	N	Min	Max	Sum	Mean	Std. Deviation
Pretest	30	17	27	629	20.96	2.51
Posttest	30	19	29	687	22.90	2.84
Valid N (listwise)	30					

According to Table 1, the data shows that the pretest score had an average value of 20.96 with a standard deviation of 2.51. In comparison, the posttest score had an average value of 22.90 with a standard deviation of 2.84. At first glance, there seems to be a difference between the pretest and posttest scores, and it's evident from the total scores obtained from the pretest and posttest, which are 629 and 687, respectively.

However, to determine if this difference is meaningful or significant, a hypothesis test was conducted using the paired sample t-test on the SPSS IBM 26 program, and the results are as follows:

Table 2. Hypothesis Testing Results

	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Lay-up Shoot Pretest - Posttest	-1.371	0.907	-11.575	29	.000

Based on the results presented in Table 2, we can conclude that the difference between the average values is -1.371, with a standard deviation of 0.907. The calculated t-value is -11.575 with a degree of freedom (df) of 29. The Sig value (2-tailed) is 0.000, which indicates that the significance value is less than 0.05. Therefore, we can conclude that there is a significant difference between the pretest and posttest values, where the posttest value is greater.

Discussion

For effective learning and teaching, the use of instructional materials is crucial. (Wang et al., 2019). Teaching media greatly enhances education and enables teachers to deliver effective and efficient instruction (Marzuna & Adi, 2019). In technical learning, students need an object with easily understood movements for effective practice (Oktarina et al., 2021). By using flipbook-based audio-visual learning media, the material is easier to understand so you can do it well (Pranata et al., 2021). The learning process using flipbook-based audio visual media aims to make students more creative and remember the level of difficulty of the material being taught (Amanullah, 2020). This flipbook media will also influence how quickly students master the material (Septianto et al., 2022). At this stage, a lecturer can overcome a student's limitations. Additionally, the use of flip book media with audio and visual displays enhances understanding of the material (Yayi & Yuliana, 2019).

This seems to be due to the appearance or thanks to the software on the flip book itself provided by this vendor which is now able to create more varied flip book animations (Azizah & Budijastuti, 2021). Not only text, images, video and audio can also be inserted in the flip book that we make. The flip book program is animation software that makes it easier for an animator to draw correctly with a tablet or using a mouse (Setiadi et al., 2021). Flip book is the only 2D animation software that is fully designed and easy to use (Yulianto, 2022).

The use of flip book media is also felt by students as something new, although in some literature the use of flip book media has been widely used, but for basketball material, especially basketball lay-up shoot material, it is still very rare, that is perhaps one of the things that This was the author's initiation to research this, and the results turned out to be very satisfying. Students will experience increased enthusiasm if they are given something new (Sukma & Yuliana, 2022). The purpose of engaging in the learning process is to acquire knowledge and skills that will lead to desirable outcomes. These outcomes may include personal growth, career advancement, or the ability to contribute positively to society. Ultimately, the value of learning lies in its ability to enrich our lives and enable us to achieve our goals (Awwaliyah et al., 2021).

Conclusions

The research and data analysis conducted suggest that the use of flip book-based audio visual media can significantly improve the basic lay-up shoot movement skills in basketball games. The study also indicated a positive impact on the students' psychology, as they showed great enthusiasm in studying the material. However, the research was limited to a single class of students and the researcher's location, thus future research should expand this study to more

subjects and different locations. Additionally, it is recommended that future teachers, whether lecturers, teachers, or students themselves, incorporate innovative teaching methods to maintain student motivation and optimize teaching and learning interactions.

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Information about the authors

Dr. Yopi Meirizal, M.Pd: yopimeil2ok@gmail.com, <https://orcid.org/0000-0002-3237-124X>, Pendidikan Jasmani, Kesehatan dan Rekreasi, STKIP Pasundan. Indonesia.

Dr. Sumbara Hambali, M.Pd: sumbarahambali8@gmail.com, <https://orcid.org/0000-0003-2827-0128>, Pendidikan Jasmani, Kesehatan dan Rekreasi, Indonesia.

Dhani A Zakaria, M.Pd: daniewoxxx82@gmail.com, <https://orcid.org/0009-0005-1029-3729>, Pendidikan Jasmani, Kesehatan dan Rekreasi, STKIP Pasundan. Indonesia.

Yudi Hidayat, M.Pd: hidayatyadi.zyss69@gmail.com, <https://orcid.org/0009-0002-0818-2737>, Pendidikan Jasmani, Kesehatan dan Rekreasi, Indonesia.

Dindin Bernhardin, M.M: bernhardin1932@gmail.com, <https://orcid.org/0009-0006-6625-6430>, Pendidikan Jasmani, Kesehatan dan Rekreasi, STKIP Pasundan. Indonesia.

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