

# Applying Audio Visual as Learning Media in Increasing Learning Outcomes of Forehand and Backhand Drive on Squash Subject

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## ABSTRACT

Audiovisual learning media in enhancing learning outcomes of forehand drive and backhand punch squash courses at the Department of Sport and Health Faculty of Sports Science, Universitas Negeri Makassar. The research method used in this study is a quasi-experimental method with a total sample of twenty-nine people, obtained through simple random sampling technique. The study was conducted using the forehand drive and backhand squash test as a source of initial data and final data of the study after the improvement of training. Descriptive statistics data presented the average value of the pre-test of the forehand drive reached 17.31, which was lower than 24.10 as the average value of the forehand drive in the post-test. The backhand drive in pre-test reached 13.48, which is lower than 20.00 as the average value of the backhand drive in the post-test punch. Thus, this study found that there are differences in the average learning outcomes using audiovisual learning media between pretest and post-test. The difference achievement due to the improvement of forehand and backhand drive in learning outcomes of students majoring in Physical Education. The paired sample T-Test to find out the significance of learning media to improve learning outcomes. The significance value (2-tailed) of this study was: 0,000 ( $p < 0.05$ ) for the forehand drive, and 0.00 ( $p < 0.05$ ) for the backhand drive value indicated that  $H_0$  is rejected. This study showed that the audio-visual learning media could improve the learning outcomes of the drive forehand and backhand drive squash courses in the Department of Physical Education.

**Keywords:** *Audiovisual, learning media, learning outcomes, forehand drive, backhand drive*

## 1. INTRODUCTION

The main problem of physical education is the low quality of physical education in schools and in the scope of universities that overshadow the issue of physical education. This is due to the limited ability of physical education teachers and lecturers and the limited sources of supporting resources used in the process of implementing physical education [1]. Educators with low skills usually do not succeed in improving the abilities of students. Meanwhile, the learning process must develop the abilities and skills of students physically, mentally [2][3], and intellectually [4].

One of the alternative courses for students majoring in Physical Education, Health, and Recreation is the Squash Practice and Theory course. However, it is an alternative course but becomes one of the priority courses to achieve the specified semester credit target. One of the essential course coverage in squash is the basic punch drive technique, which is divided into two parts, namely

forehand and backhand. Four basic forms of squash skills are generally possessed by novice players in squash, namely drive, volleyball, boast, and service [5][6].

The drive is a flat and fast stroke about hip level to the shoulder with the ball bouncing to the floor one time before hitting it. The punch drive is the basis of all hits which must be mastered by students first [7]. A good shot is a shot taken by a player to parry the ball from the opponent and then the ball falls on target. The fall of the ball from the drive can be in the front, middle or back of the squash court. The best target for a ball to fall is at the back, which is between the service box and the back wall.. The more the ball approaches the sidewall from the front wall, the harder it is for the opponent to return the ball. Teaching the basic techniques of forehand and backhand punch drive requires the competence of professionalism of educators or lecturers in realizing efficient learning outcomes through various varied models in a coaching exercise or learning process.

The lack of student knowledge about squash sports is not separated from the teacher responsibility. The squash skills is related to the basic technique of forehand and backhand drive. The main problem of squash sports is still limited to the structure of facilities and infrastructure that is not comprehensive or has not become popular sports [5]. Knowledge of students about squash is very minimal, especially in the fundamental movement patterns of the forehand and backhand drive. The cause might be that the activity is new for the students to learn the squash. In other words, the game has never been taught at the elementary school level to the secondary level and coupled with a different level of understanding and level of mastery of motion in each individual or group of learners.

One way that can be used to support the implementation of the teaching and learning process well and innovatively is the use of instructional media [8]. Mastery of the material, including the forehand drive and backhand punch material, It can be use as instructional media and provides practical value and significant stimulus to learners. It can cause the uniformity of understanding and assessment of something and events that are rare or rare and difficult to describe concretely.

The audio-visual media can facilitate the transformation of material to students [9]. It also facilitates lecturers in practicing movements, streamline the allocation of time, and increase the focus and interest of students in following lecture material. Besides, in turn, it can increase understanding and absorption of learning from the affective, cognitive, and psychomotor. For this reason, the researchers offer one of the solutions in enhancing student learning outcomes in the forehand and backhand drive using audio-visual teaching media.

Learning and teaching are concepts that cannot be separated. Learning refers to what a person must do as a subject in learning. In contrast, teaching refers to what an educator should do as a teacher. Learning outcomes are changes in overall behavior, not just one aspect of humanity's potential [10]–[14]. That is, learning outcomes categorized by education experts as mentioned above are not seen in fragmentation or separately, but rather comprehensively.

One of the main tasks of an educator (teacher and lecturer) is to evaluate the success of the teaching plan. Evaluation of teaching and learning activities function to see the extent of the success of teaching teachers and student learning appropriately and reliably [10]. Hence, we need information that is supported by objective and adequate data about indicators of student behavior and personal change. In general, the understanding of learning outcomes is a change in behavior and overall ability possessed by students after learning. The outcomes manifests in the form of cognitive, affective, and psychomotor skills (not just one aspect of the potential) caused by experience [8], [15]–[17]. Other

definitions of learning outcomes can also be interpreted as something that is achieved or obtained by students. The learning outcomes encompass the effort or thought, which is stated in the form of mastery, knowledge, and necessary skills contained in various aspects of life. Thus, it appears in the individual using the assessment of attitudes, knowledge, fundamental skills, and quantitative behavioral change [18], [19].

In the process of teaching and learning, media means as a means that functions to channel knowledge from the teacher to students. Besides, the learning media determine the smoothness of the application of the learning model. Some experts give a definition of learning media. The use of instructional media in quantitative and qualitative research is also an essential measure in the process of proving hypotheses. Schramm [20] argues that learning media is a messenger technology that can be utilized for learning purposes. Meanwhile, Briggs [21] argues that learning media is a physical means to deliver learning content/material such as books, films, videos, and so on. , National Education Association [22] revealed that instructional media is a means of communication in print and hearing, including hardware technology.

In improving learning outcomes of forehand drive and backhand punch drive students, the application of audio-visual learning media is beneficial. The media is expected, leading the sense of interest in learning material can be appropriately distributed. To find out the increase in learning outcomes of the forehand and backhand drive, after the pretest, treatment was given in the form of the application of learning media in the teaching and learning process. Subsequently, the final test (posttest) was conducted.

## 2. METHOD

### 2.1. Research Design

This study intends to obtain information about the application of audio-visual learning media in improving learning outcomes of forehand and backhand drive on squash courses on students of the Physical Education Department of the Faculty of Sport Science of Universitas Negeri Makassar. This type of research is an experimental study with a quasi-experimental research design [23]. The study was conducted at the Faculty of Sport Science, Universitas Negeri Makassar, in June-September 2019. The form of the research design is the Pre-test and post-test. The research design is as follows:

**Table 1.** Research Design

Pre-test	Treatment	Post-test
01	X	02

Notes:

- O1: Measure learning outcomes of drive forehand and backhand squash before applying audio-visual learning media
- X: Treatment in the form of the application of audio-visual learning media
- O2: Measure the learning outcomes of the drive forehand and backhand squash course after applying audio-visual learning media

**2.2. The technique of Collecting Data**

Data collection is done by carrying out the initial test drive forehand and backhand and then given treatment and the final test.

Drive Punch Test Results in Squash Games:

- Purpose: To measure the results of drive hits (forehand and backhand) in Squash.
- Level: Male and Female Students.
- Validity: 0.73
- Reliability: 0.83
- Tools / Facilities: Squash rackets, squash balls, and squash courts.
- Technical Implementation:
  - The tester stands near T.
  - Throw the ball yourself up, let it bounce once on the floor then drive a maximum of 10 strokes without stopping. The ball that is reflected from the front wall will be scored according to where the ball fell.
  - Each tester is given a chance three times the forehand and backhand.
  - The target of falling the ball, reflecting off the face wall is divided into four areas with different scores (1,2,3 and 4).

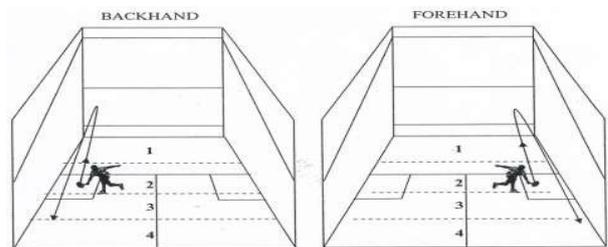
**g. Legitimate blow**

- Blows that are considered valid, i.e., blow directly to the front wall above the tin and do not touch the outside line of the field.
- The ball from the front wall may bounce off to the sidewall, back wall, or directly to the floor.

**h. Scoring**

- Every drive is scored according to the fall of the ball.
- The total score is the number of strokes in a rally period x score according to the fall of the ball.
- The total ideal score is equal to the frequency (maximum 10) times ideal score (4) = 40.

**i. The testers numbered three, namely score takers, frequency counters, and supervisors.**



**Figure 1** Skill test in playing squash (drive backhand dan forehand) [5], [6]

**3. RESULTS AND DISCUSSION**

In this study the initial test (pre-test) and the final test (post-test) forehand and backhand drive skills.

**3.1. Pretest**

**Table 2.** Initial Test Result

Pre-Test	N	Min	Max	Sum	Mean	Std. Deviation
Forehand Drive	29	10	25	502	17.31	4.07
Backhand Drive	29	10	20	391	13.48	2.82

**3.2. Posttest**

**Table 3.** Posttest Result

Post-Test	N	Min	Max	Sum	Mean	Std. Deviation
Forehand Drive	29	11	35	699	24.10	6.166
Backhand Drive	29	10	34	580	20.00	4.986

**3.3. Normality Test**

**Table 4.** Normality Test Result

<b>Drive Forehand</b>	<b>Shapiro Wilk</b>	<b>Asymp, Sig</b>	<b>Exp.</b>
Pre-Test	0.95	0.14	Normal
Post Test	0.98	0.81	Normal
<b>Drive Backhand</b>	<b>Shapiro Wilk</b>	<b>Asymp, Sig</b>	<b>Exp.</b>
Pre-Test	0.92	0.06	Normal
Post Test	0.94	0.09	Normal

**3.4. Paired Sample T-Test**

**Table 5.** Statistic Descriptive

<b>Paired Samples Statistics</b>					
		<b>Mean</b>	<b>N</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pair 1	Pre Test1	17.31	29	4.072	.756
	Post Tes1	24.10	29	6.166	1.145
Pair 2	Pre test2	13.48	29	2.824	.524
	Post Tes2	20.00	29	4.986	.926

**Table 6** Significance Value

<b>Paired Samples Test</b>									
		<b>Paired Differences</b>					<b>T</b>	<b>df</b>	<b>Sig. (2-tailed)</b>
		<b>Mean</b>	<b>Std. D</b>	<b>Std. Error Mean</b>	<b>95% Confidence Interval of the Difference</b>				
					<b>Lower</b>	<b>Upper</b>			
Pair 1	P1 - POST1	-6.793	3.811	.708	-8.243	-5.343	-9.598	28	.000
Pair 2	P2 - POST2	-6.517	3.269	.607	-7.761	-5.274	-10.736	28	.000

Descriptive statistics in this study indicate that the average value of the forehand drives in the pre-test reached 17.31, which is lower than 24.10 as the average value of the forehand drive in the post-test. The average value of backhand drive in the pre-test reached 13.48, which is lower than 20.00 as the average value of the backhand punch drive in the post-test. Thus, this study found that there are differences in the average learning outcomes using the audio-visual learning media between the pre-test and post-tests. The increase was obtained through learning outcomes of the forehand and backhand drive of students majoring in Physical Education.

This study found out the influence of audio-visual learning media usage in improving student learning outcomes through forehand and backhand drive. The significance influence was tested by finding out the significance value (2-tailed) in the table. Significance value (2-tailed) of this study was 0,000 (p <0.05) for the forehand drive and 0.00 (p <0.05) for the backhand drive value, then H0 is rejected and Ha is accepted. The results

of the initial test and the final test experience is a significant change. Thus, the application of audio-visual learning media can improve the learning outcomes of the drive forehand and backhand drive squash courses in the Department of Education and Health. Furthermore, to find out the magnitude of the results of the application of audio-visual learning media in increasing learning outcomes of drive punch seen using the formula:

$$\frac{\text{Posttest Mean} - \text{Pretest Mean}}{\text{Pretest Mean}} \times 100\% \tag{1}$$

Thus, the score of the forehand drive is as follows:

$$\frac{24.10 - 17.31}{17.31} \times 100\% = 39.2\% \tag{2}$$

The score of the backhand drive is as follows:

$$\frac{20.00 - 13.48}{13.48} \times 100\% = 48.36\% \tag{3}$$

Learning media is everything that can channel messages, can stimulate the thoughts, feelings, and wishes of students so that they can encourage the creation of learning processes in students.

Squash is a game that uses a racket and a small ball made by two players in a room confined by a wall, intending to hit the ball against the front wall so the opponent cannot return the ball. Squash sports games use the racket as bat-like badminton and tennis. Two people in a room play this game. Of all the squash playing skills, drive punch is the essential skill. It must be mastered by every squash player, because this stroke is one of the most often used by every squash player in various levels when competing. The forehand drive is a blow made from the side of the body, where the player holds the racket. Punch drives become the preferred playing skill in squash games, without leaving other blows aside [5], [6].

A good punch drive is a shot made by the player from the reflection of the opponent when the rally takes place in the direction of the fall of the ball on target. The fall of the ball from the drive can be in front, middle or back of the squash court. The best target for the fall of the ball is at the back, which is between the service box and the back wall. The more the ball approaches the sidewall from the front wall, the harder it is for the opponent to return the ball. This drive can be done in two ways, namely with the forehand and backhand. The drive blow is a hard hit towards the front wall field, intending to force the opponent to play the next punch in an awkward position in the back corner of the field. In a squash game, the shot does not only aim at one side but can lead in various directions such as the right side of the player or the left side of the player. The intended punch is the drive forehand and backhand drive. The forehand drive is the most important weapon to be mastered because the forehand allows being struck and slow but still gives better accuracy. Mastery backhand is important to be able to play the ball both on the left and right sides.

#### 4. CONCLUSION

Based on the results of the study, it can be concluded that the application of audio-visual learning media can improve learning outcomes of forehand and backhand drive. For educators are expected to optimize the use of audio-visual learning media aids in the teaching and learning process, so that it can affect improving student learning outcomes. For researchers to be able to develop the scope of research, specifically the use of audio-visual learning media to increase learning outcomes so that it is even more perfect.

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