



The Impact of Implementing Verbal Augmented Feedback on Lay-Up Exercises of Sports Education College Student

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ABSTRACTS

Purpose: This research aims to determine the impact of implementing verbal augmented feedback on lay-up exercises among college sports education students.

Materials and Methods: This research uses experimental research with a quantitative approach. Experimental research involves manipulating one or more variables to influence the variable being measured. The research population is sports education students from the class of 2022 STKIP PGRI Bangkalan. This study's data analysis was conducted using SPSS version 22.

Result: In the normality test using Kolmogorov-Smirnov, the significance is 0.078, which means it is more significant than 0.05, so it is stated that it is normally distributed. In the comparison of the descriptive statistics table, the mean pre-test and post-test post-test showed an increase in results, so the provision of treatment on the test instrument can be stated as excellent and acceptable. In the Hypothesis test using the Paired sample T-test, the results of the post-test and pre-test significance values of the right and left lay-ups were smaller than 0.05. So, it is stated that the 2 hypothesis variables above are included in the acceptable significance value.

Conclusion: Providing verbal augmented feedback greatly influences students' understanding of theory and practice through communication interactions. In its implementation, implementing verbal augmented feedback requires sufficient time to determine the implementation schedule, facilities and infrastructure, as well as evaluating notes to determine each student's progress at each meeting. Verbal augmented feedback is an old method that coaches often use during training sessions, but they often need to be made aware of this. So, the method of implementing verbal augmented feedback can be explored further by lecturers, teachers, and trainers to provide an understanding of the material provided through communication interactions (feedback).

Keywords: Augmented feedback, Lay-up, Basketball.

INTRODUCTION

Basketball is a sport that is a large ball game played with the hands. In the game of basketball, there are several basic techniques that players must master, including dribbling, passing and shooting techniques. A player can control the play pattern and score many points for his team if he can master shooting well and correctly (Rustanto, 2017). The lay-up shooting technique is fundamental in basketball (Graciano et al., 2024). It is a crucial method for scoring by guiding the ball into the basket (Kristalistianto, 2020). Lay-up shots typically offer higher points than other types, such as free throws or three-pointers, and provide a high probability of scoring since the ball

is released close to the ring (Sanjaya et al., 2022). As a result, mastering the lay-up technique is crucial for basketball players.

One of the things to pay most attention to when performing the lay-up technique is consistent hand movements, and using your fingers correctly when releasing the ball is also very important to increase shooting accuracy (Hidayatullah & Anwar, 2023). Common mistakes students make when performing a lay-up shot include taking a high first step, inconsistent shooting distance (either too long or too short), hesitancy, poor coordination between dribbling and executing the lay-up and having their shots hit the side of the rim. Additionally, unengaging teaching methods can cause students to forget the movements demonstrated by the teacher on the court (Mustamir et al., 2022). Mastering the lay-up, a fundamental basketball skill crucial for scoring and overall game performance requires more than just physical practice; it demands effective feedback to enhance learning and execution. Verbal augmented feedback, offering specific and constructive guidance during training, has been recognized as a vital element in skill development (Truong et al., 2023).

Verbal is a concise phrase that directs attention to someone through one or two words to obtain task-relevant stimulation of the movement pattern elements of motor skills (Halperin et al., 2020). Feedback is the communication of information between someone to learn about reciprocal movements for someone (Moinuddin et al., 2021). This is a form of evaluation or communication so that the person receiving it can respond well to what they have obtained and done. Augmented combines objects from various directions and aspects to project and obtain accurate results (Etiler & Toros, 2021). So, augmented feedback is the feedback of information in various directions to communicate by combining an object or movement to obtain a good response and results through the instructions that have been delivered. So, verbal augmented feedback is understanding in two-way or reciprocal communication through one or two more words to learn and carry out a movement or task given through the instructions that have been delivered. In the application of verbal augmented feedback, there are 3 concepts applying feedback from a teacher or trainer to students or players, namely movement error, movement error when carrying out an experiment or exercise with information communication interaction to reduce movement errors that will occur (Truong et al., 2023). This is shown in the Sandwich approach theory. The sandwich approach is designed to influence others without telling them what you are doing – it is a unilaterally controlling strategy – in other words, a strategy that revolves around you influencing others but not being influenced by them in return. In its application, positive feedback gives a relaxed impression, and negative feedback provides the aim of correcting a mistake made, then followed up with something positive to reduce feelings of disappointment over negative feedback by providing motivation or constructive enthusiasm to try again (Halperin et al., 2020).

Previous research shows that Augmented-Feedback Training Improves Cognitive Motor Performance of Soccer Players (Hicheur et al., 2020). Augmented feedback is implemented to enhance jump velocity (Nagata et al., 2018). Previous research has been done to improve lay-up ability with multidirectional skipping (Sanjaya et al., 2022). Previous research aims to improve lay-up learning outcomes by implementing teaching games for understanding (Graciano et al., 2024). According to previous studies, research on using verbal augmented feedback in lay-up exercises must be available.

This research is significant because it explores how this feedback can be optimized to improve the lay-up performance of sports education college students, who will become future

educators and coaches. Understanding the impact of verbal augmented feedback can inform more effective teaching strategies, ultimately raising students' skill levels and improving the quality of sports education. Although verbal augmented feedback has been studied in various sports settings, its application to basketball lay-up exercises among sports education students has yet to be explored. This research introduces a unique approach by examining the effects of different types of verbal feedback – such as immediate versus delayed feedback or positive versus corrective feedback – on the lay-up performance of college students. By investigating these aspects, the study provides new insights into practical methods for enhancing motor learning and performance in basketball.

Based on this background, this research aims to determine the impact of implementing verbal augmented feedback on lay-up exercises among college sports education students.

METHODS

Study Participants: This research uses experimental research (Purwoto et al., 2024) with a quantitative approach (Rahayu et al., 2024). Experimental research is a type of research that involves manipulating one or more variables to influence the variable being measured (Prianto et al., 2024). The research population is sports education students in the 2022 STKIP PGRI Bangkalan class. The sampling technique uses purposive sampling. Purposive sampling is a technique researchers use to consider certain things in sampling or determining samples for specific purposes (Widiastuti et al., 2024). The inclusion criteria for this study consist of active students enrolled in the Basketball Sports Education program, class of 2022, at STKIP PGRI Bangkalan, with voluntary participation, a minimum attendance rate of 75%, good physical health, and an age range of 18 to 23 years. The exclusion criteria include students who are inactive in college, have sustained injuries, are unwilling to participate, or have less than 75% attendance. The number of samples that will be used is 20 students.

Study Organization: The variables used in this research are the independent variable, namely verbal augmented feedback, and the dependent variable, namely the lay-up continuous test technique. The data collection technique is face-to-face by collecting quantitative data (numbers). The data collection technique is direct or face-to-face using observation and direct communication interaction, through pre-test, treatment or treatment, and post-test (Jatmiko et al., 2024). The research plan is to use a pre-experimental design type of one group pretest-posttest design, meaning making one class group using a pre-test and post-test to determine initial abilities related to the material presented through the verbal augmented feedback treatment test instrument. This test aims to see students' ability to receive feedback when receiving treatment in continuous lay-up test technique exercises. The pre-test involved a lay-up exercise to assess lay-up skills before applying verbal augmented feedback. After performing the lay-up, verbal augmented feedback was provided. A post-test, also in the form of a lay-up exercise, was conducted following the feedback.

Statistical Analysis: The lay-up continuous test instrument has been validated using the CVR formula to get a correlation coefficient value of 1.00, thus getting a very high degree of validity. Then, the reliability results get a correlation coefficient value of 0.562. It can be obtained that the lay-up continuous test instrument can be used as a research test instrument. Before analyzing the data, researchers carried out validity, reliability, normality, and hypothesis tests with a pre-experimental type one group pretest-posttest design. When using a test instrument, it is necessary

to test the validity and reliability test through an expert test or validator as validation of the test instrument that will be used later. In data analysis, descriptive analysis is used to determine the results, differences and improvements in the data obtained. This study's data analysis was conducted using SPSS version 22 to test the normality of research data using the Kolmogorov Smirnov Test with Hypothesis Testing, namely the Paired Sample T-test. If the test results are Paired, the sample T-test is neither regular nor significant. The Wilcoxon Test is an alternative non-parametric test used when a variable being tested is not normally distributed (Puspita & Utari, 2022).

Table 1. Frequency Distribution of Test Instrument Assessments (Salmaa, 2022)

Validity Category	Score Range
Very good	43 - 50
Good	35 - 42
Pretty good	27 - 34
Not good	19 - 26
Very Not Good	10 - 18

RESULT

Validity test: Based on expert tests on applying verbal Augmented feedback as a test instrument in the validation data description table above, it is known that the total number of 2 validators obtained scores of 46 and 43. So, the test instrument for implementing verbal augmented feedback that will be used has an outstanding validity category. The concept obtained from the expert as a validator on the test instrument. The concept of implementing verbal augmented feedback has weaknesses, namely the language is shorter, in the movement error section the sentences are made simple, correct what should be a question or interrogative sentence and correct the word feedback to feedback. The validation results concluded that the Verbal Augmented Feedback Implementation Concept test instrument was declared suitable for research use.

Reliability Test

Table 2. Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
,073	2

The Verbal Augmented Feedback Application Concept test instrument has a good level of reliability with a Cronbach's Alpha significance value of 0.073, which is greater than 0.05, meaning there is no significant difference between the two validators regarding the test instrument on the Verbal Augmented concept. Feedback. So, verbal augmented feedback can be used in this research.

Normality test

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Total
N		20
Normal Parameters ^{a,b}	Mean	7.9000
	Std. Deviation	1.44732
Most Extreme Differences	Absolute	.183
	Positive	.183

	Negative	-.117
Test Statistic		.183
Asymp. Sid. (2-tailed)		0.78 ^c

Based on the normality test via the SPSS output table above using the Kolmogorov-Smirnov test, it is known that the significance value for the total number of lay-up entries is 0.078, which means it is more significant than 0.05, so it can be concluded that the data is normally distributed.

Descriptive Statistics Test

Table 4. Descriptive Statistics Test

	N	Descriptive Statistic			
		Minimum	Maximum	Mean	Std. Deviation
Pre_L_Kn	20	.00	3.00	1.3500	.81273
Post_L_Kn	20	2.00	5.00	2.9000	.96791
Valid N (listwise)	20				

The descriptive Statistics table above shows the right lay-up pre-test and post-test with a sample size of 20 students. The mean result of the right lay-up pre-test was 1.3500, and the right lay-up post-test had a mean of 2.9000. So, the results of the right lay-up pre-test and post-test were obtained by a mean difference of 1.5500. There is a significant difference between the right lay-up pre-test and post-test variables.

Table 5. Descriptive Statistics Test

	N	Descriptive Statistic			
		Minimum	Maximum	Mean	Std. Deviation
Pre_L_Kr	20	.00	2.00	.7000	.73270
Post_L_Kr	20	1.00	54.00	1.9500	.99868
Valid N (listwise)	20				

The descriptive Statistics table above shows the left lay-up pre-test and post-test with a sample size of 20 students. The mean result of the left lay-up pre-test was 0.7000, and the left lay-up post-test had a mean of 1.9500. So, the results of the left lay-up pre-test and post-test were obtained by a mean difference of 1.2500. There is a significant difference between the pre-test and post-test variables on the left lay-up.

Table 6. Descriptive Statistics Test

	N	Descriptive Statistics			
		Minimum	Maximum	Mean	Std. Deviation
Total_pre	20	.00	4.00	2.0500	1.19097
Total_Post	20	3.00	8.00	4.8500	1.75544
Valid N (listwise)	20				

The descriptive statistics table above shows the total pre-test and post-test on the lay-up technique with a sample size of 20 students. The mean result for the total pre-test lay-up was 2.0500, and for the total post-test lay-up, the mean was 4.8500. So, the total pre-test and post-test lay-up results were obtained with a mean difference of 2.8000. There is a significant difference between the two variables in the total pre-test and post-test of the lay-up technique.

Hypothesis testing

Table 7. Hypothesis Test Results Paired Samples Correlations

Paired Samples Correlations			
		N	Correlation
Pair 1	Pre_L_Kn & Post_L_Kn	20	.114
			Sig. .633

The results of the Hypothesis Test in the Paired Samples Correlations Test obtained a significance value of $0.633 > 0.005$. So, these results show significant results and are declared normal in the pre-test and post-test implementation of the proper lay-up technique.

Table 8. Hypothesis testing Paired Sample T-test

Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Differences	t	df	Sig. (2tailed)	
					Lower	Upper			
Pair 1	Pre L Kn-Post L Kn	-1.550	1.19097	.26631	-2.9926	-.99261	-5.82	19	.000

Based on the results above, using SPSS to test the hypothesis using the test Paired Sample T-test obtained a significance result of $0.000 < 0.05$. So, there is a significant difference between the pre-test and post-test on the proper lay-up technique.

Table 9. Hypothesis Test Results Paired Samples Correlations

Paired Samples Correlations			
		N	Correlation
Pair 1	pre_L_Kr & post_L_Kr	20	-.094
			Sig. .695

The results of the Hypothesis Test in the Paired Samples Correlations Test obtained a significance value of $0.695 > 0.005$. So, these results show significant results and are declared normal in the pre-test and post-test implementation of the left lay-up technique.

Table 10. Hypothesis testing Paired Sample T-test

Paired Differences									
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Differences	t	df	Sig. (2tailed)	
					Lower	Upper			
Pair 1	Pre L Kr-Post L Kr	-1.250	1.29269	.28905	-1.8550	-.64500	-4.32	19	.000

Based on the results above, using SPSS to test the hypothesis using the test Paired Sample T-test obtained a significance result of $0.000 < 0.05$. So, it is stated that there is a significant difference between the pre-test and post-test on the left lay-up technique

DISCUSSION

The average result for the right lay-up pre-test was 1.35; the left lay-up pre-test was 0.65. For the right lay-up post-test, it was 2.9; for the left lay-up post-test, it was 1.95. So, looking at this, the difference in average results in the pre-test and post-test of right and left lay-up has dramatically increased. This was obtained by treatment after the pre-test and post-test for better results. It should be noted that providing treatment has a significant influence on increasing students' understanding of the lay-up techniques they have learned. Previous research shows that Augmented-Feedback Training Improves Cognitive Motor Performance of Soccer Players (Hicheur et al., 2020). The previous study and this research utilized Augmented Feedback; however, the critical difference lies in their focus. The previous study examined Cognitive Motor Performance in soccer players, while this research focuses on lay-up skills in students.

The results obtained in this study are likely due to the instructions on effective verbal augmented feedback. Someone can understand something from the first time instructions are given and the player's interaction when providing the first feedback, then verbal can be interpreted as a phrase that contains an element to provide a movement, so that it can be understood to master the player's motor skills (Gabitov et al., 2020). Through implementing verbal augmented feedback, this research provides a good understanding of the importance of augmented verbal communication between lecturers and students, teachers and students, and coaches and players. Physical Education, especially in the game of basketball, is planned systematically to provide growth and development in physical, organic, motoric and thinking, emotional, social and moral skills (Hidayatullah, 2018, 2019; Hudain et al., 2023; Lauria et al., 2023). This helps students understand lay-up techniques and the importance of giving and receiving feedback to improve their understanding and knowledge of basic basketball techniques.

CONCLUSION

Providing verbal augmented feedback greatly influences students' understanding of theory and practice through communication interactions. In its implementation, implementing verbal augmented feedback requires sufficient time to determine the implementation schedule, facilities and infrastructure, as well as evaluating notes to determine each student's progress at each meeting. Verbal augmented feedback is an old feedback method that coaches often use during training sessions, but coaches often need to be made of this. So, the method of implementing verbal augmented feedback can be explored further by lecturers, teachers and trainers to provide an understanding of the material provided through feedback communication interactions (feedback)

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CONFLICT OF INTEREST

The author has no conflicts of interest to declare.

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