

Effect of Verbal Feedback on the Lay-Up Skill in Basketball During Eight Weeks Training

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ABSTRACT

The purpose of this study is to examine the effect of verbal feedback given to players during training on lay-up in basketball. In 2016-2017, a study was conducted with a total of 40 students in two groups who were educated at Toros University and showing similarities in terms of some variables. The average age of the research group is (20.87 ± 1.61) for the test group and (20.60 ± 1.09) for the control group. Lay-up Evaluation Form, whose validity and reliability study was conducted by Çamur³ was used as data collection tool. In the data analysis, Shapiro-Wilk test was used to determine whether the scores show normal distribution or not. The Wilcoxon Signed Ranks Test was used to determine the difference between the pre-test and post-test scores of the groups. In the study, 0.05 was used in statistical processes as the level of significance. According to the research findings, there was a significant difference between the test group pre-test and post-test lay-up values ($p < 0.05$). The Mann-Whitney U Test was used to determine the differences between test and control groups. According to the research findings, a significant difference was found between the post-test lay-up values of the test and control groups ($p < 0.05$).

As a result, it was seen that verbal feedback during eight weeks of training had a positive effect on the lay-up.

Keywords: Lay-up, Skill Learning, Basketball, Feedback, Verbal Feedback

INTRODUCTION

Feedback became a term that began to be recognized by scholars of skill learning during their work on closed-loop and electro-mechanics, following the end of the war in late 1945. Firstly, its meaning is known as the sensory (proprioceptive) information about the person's body sensation and the state of the movement.¹¹ Feedback is information that will validate or correct the quality of movement for the practitioner, both internally and externally, so that the player can perform the movement in the expected result or performance of the movement.²⁻⁷

Giving feedback to people is a complex program that encompasses many topics. The impact between performance information and the results of different behaviour and personal attitudes is complex and still unresolved today. Much still needs to be learned to fully understand these problems. Feedback is all of the messages that are conveyed to the person during learning. Feedback gives information about the movement itself or the body shape of the person doing the movement during the performance of the skill. The trainer can give information to the performer of the skill by giving visual and verbal feedback. Feedback causes the person learning the skill to make changes regarding that movement when he or she repeats the same action at another time.¹² The main purpose of feedback is explained as conveying information about movement to players after performance. In the study, in which the effect of verbal and visual feedback on dunk access in handball was examined, a pre-test-post-test experiment design was used with the participation of 38 primary school students. To collect the data, a multiple choice test in the cognitive domain and a grading scale in the psychomotor domain were used, and no significant difference was found between the cognitive and psychomotor domain achievement scores of the groups. As a result, it is seen that the use of visual feedback and material does not have a significant effect on teaching jumping shooting skill in handball.

With the feedback they receive about the performance or behaviours of the players, it allows the movements to be implemented in the future to be rearranged by the feedback given by the instructors or trainers. With feedback, athletes can learn about the pattern of their action. The feedback given by the instructors or trainers to have enough technical knowledge about the skill applied enables the player who applies the skill to provide as much information as necessary about the movement pattern.

This study was conducted to reveal the effect of verbal feedback given in eight weeks of training on lay-up in basketball.

MATERIAL AND METHODS

Research Group: 40 male students studying at Toros University in

Mersin province voluntarily participated in the study. 20 students who received training and verbal feedback for 8 weeks were in the test group and 20 students who did not receive training and verbal feedback for 8 weeks were in the control group.

In order to determine the 40-person research group to participate in the study, all students were given a chest number. In order to ensure the equivalence of the participants in the test and control groups in terms of lay-up skills in basketball, 100 students similar to the participants in the research group were reached before starting the study. 100 students who did not have regular basketball training and did not have a basketball license in a sports club or school team were asked to apply the dominant hand lay-up skills in basketball, and their performances were monitored by five basketball experts, and the lay-up skill in basketball was scored with an evaluation chart. The scores of the two experts with the highest and lowest scores from five experts were subtracted, and the average of the remaining three experts' scores was converted into a single score for each participant. These scores are ranked at the lowest level and according to the chart, 50 students who have received the least score, which means that they have failed the lay-up skill in basketball. Considering the age of the selected 50 students, 20 students who will receive 8 weeks of training and verbal feedback were assigned to the test group, and 20 students who did not receive training and verbal feedback for 8 weeks were assigned to the control group. 10 students were taken as substitutes.

Basketball training (lay-up) was given to the test group within a program that would last 45 minutes two days a week and 8 weeks in total. Verbal feedback was given to the individuals in the test group during training. The control group was also given a basketball training (lay-up) for 45 minutes two days a week and 8 weeks in total. No feedback was given to the individuals in the control group during training.

As a pre-test, lay-up and skill scales and life satisfaction and self-efficacy scales were applied in basketball, 8 weeks later, the scales were re-applied as a post-test and the effects of verbal feedback were examined.

Process: The points to be considered in the application of lay-up skills were explained and shown by the trainer to the test group, who received verbal feedback. The number of repetitions and durations of the application were kept the same as the control group. At most 2 verbal feedback was given to the athletes in the 4th application after every 3rd set. All athletes were given equal 20 verbal feedback x 1 training for the lay-up skill in each training. Verbal feedback was determined according to the steps of the lay-up evaluation form.

Data Collection Tools: Lay-Up Assessment Form: To evaluate

the competencies of the participants in lay-up skills, the Lay-up Evaluation Form, the validity and reliability of which was made by Çamur³ was used. The form is a measurement tool that evaluates how much the parameters specified below are fulfilled between 0-5. These parameters are;

A The behaviour to be observed for stepping; Holding the ball at the level of the abdomen, start to move with the right foot while entering the right lay-up, take two steps, end with the foot whichever one starts with, the knees touch the floor in a forward angle.

B The behaviour to be observed for jumping; Pulling knees to the abdomen, jumping foot is straight, keeping the body taut, looking at the circle.

C The behaviour to be observed for Dropping the Ball; The body stretches towards the circle, keeps the arm straight up, pulls the ball up from the belly level, while releasing the ball, the palm looks towards itself, pulls the wrist towards self (to give it a camber), turns the shoulder slightly towards the circle.

D The behaviour to be observed for a Fall to Ground; With the leaping foot, falls to the ground, pulls the arms down for balance, slightly bends the knee on the fall.

Data Analysis: Descriptive statistics were used to determine the age and number of subjects values of the groups participating in the study. Since the group size was 20 in the study, the Shapiro-Wilk test was interpreted for normality. The Wilcoxon Signed Ranks test, which is the non-parametric of the T test, was used. The Mann-Whitney U test was used to evaluate the development of the test and control groups in terms of pre-test and post-test scores. In addition, Cronbach Alpha reliability analysis was performed for the scales used in the study. In the study, 0.05 was used in statistical processes as the level of significance. SPSS 22 statistical package program was used to analyze the data obtained in the study.

RESULTS

Table 1. Wilcoxon Signed Rank Test Findings Regarding the Comparison of Test Group Pre-test-Post-test Lay-Up Values

Test Group Pre-Test- Post Test Lay-up	n	Rank Average	Rank Total Z P
Negative Rank	0 ^a	0,00	0,00 3,969 0,00
Positive Rank	20 ^b	10,50	210,00
Equal	0 ^c		

- A post test lay-up < pre-test lay-up
 B post test lay-up > pre-test lay-up
 C post test lay-up = pre-test lay-up
 D post control = 1,00

In accordance with Table 1, it was seen that there was a statistically significant difference between the test group pre-test-post-test lay-up values, and the post-test lay-up score of 20 people was higher than the pre-test lay-up score ($Z = 3,969$, $p < .00$). Considering the findings, it is seen that the observed difference is in favour of the positive ranks, i.e the post-test score.

Table 2. Wilcoxon Signed Rank Test Findings Regarding the Comparison of Pre-test-Post-test Lay-Up Values of the Control Group

Control Group Pre-Test – Last Test Lay-up	n	Rank Average	Rank Tota Z P
Negative Rank	0 ^a	0,00	0,00 4,023 0,00
Positive Rank	20 ^b	10,50	210,00
Equal	0 ^c		

- A post test lay-up < pre-test lay-up
 B post test lay-up > pre-test lay-up
 C post test lay-up = pre-test lay-up
 D post control = 2,00

Looking at Table 2, it was seen that there was a statistically

significant difference between the pre-test and post-test lay-up values of the control group, and the post-test lay-up score of 20 people was higher than the pre-test lay-up score ($Z = 4.023$, $p < .00$). Considering the findings, it is seen that the observed difference is in favour of the positive ranks, i.e the posttest score.

Table 3. Mann-Whitney U Test Findings for Comparison of Test and Control Group Post-Test Lay-up Scores

Group	n	Rank Average	Rank Total	U	p
Test	20	24,95	499	103	0,009
Control	20	14,05	281		

According to the findings of the Mann-Whitney U Test used to compare the Lay-up skill scores of the control and test groups, it was found that there is a significant difference between the Lay-up skills of the students who received verbal feedback and those who did not receive verbal feedback at the end of the eight-weeks training ($U = 103$, $p < .05$). When the average ranks are considered, it is understood that the students who are given verbal feedback have higher lay-up skills compared to the students who are not given verbal feedback.

DISCUSSION

When the mean ranks are considered, it is understood that the students who are given verbal feedback have higher lay-up skills compared to the students who are not given verbal feedback. In the study conducted by Aktaş¹ with sixth grade students, the fact that there was a statistically significant difference between the control group in both the achievement level and the retention of the group who received verbal feedback in learning the skills of the forward tumble, back flip and handstand tumble in gymnastics, supports our findings. In the study conducted by Guadagnoli⁴ with 30 golfers, it was observed that the groups given verbal and visual feedback in the tests performed in the second week after the start of the study received lower scores than the control group. When the applications were continued and a second test was performed, the test results of the groups that received verbal and visual feedback were much better than the control group. According to the findings, the fact that the feedback was given in the second week caused the test group to not get results from the study, and the research should be carried out for at least five weeks supports our study. In the research conducted by Rothstein¹⁰ the findings showing that providing video feedback for less than five weeks has a weak effect on skill learning and long-term persistence is not seen. Kernodle⁵ examined the effect of verbal feedback on over-the-shoulder shooting with the non-dominant hand, in order to test the shooting of girls between the ages of 19-22, verbal feedback was given to one group to correct the mistakes, while the other group was given corrective verbal feedback and video feedback immediately after the shot. While there was a significant increase in the post-tests of both groups, it was found that the findings of the group who were given only verbal feedback and correction were at a better level. In this study; the prediction that it is unnecessary to provide video feedback immediately after the application supports our study. Kontinen⁶ conducted a study with thirty participants on the effect of verbal feedback on psychomotor skill learning for precision shooting in the group with verbal feedback, outcome information and control groups, as a result of the feedback given for four weeks, the group who received verbal feedback and the group whose result information was given and he explained that it contained less mistakes than the control group, and that giving verbal feedback for four weeks in non-elite shooters improved the shots. The findings of this research support our study. Based on previous research findings and the findings of this study, it can be said that verbal feedback given for eight weeks will positively affect the development of lay-up skill.

When the pre-test-post-test lay-up values of the control group were examined, it was found that the post-test lay-up score of the test group of 20 people was higher than the pre-test tournament score. When the studies conducted were examined,

research findings supporting our study were seen. It can be said that the difference between the pre-test and post-test scores of the control groups lay-up skill is due to the contribution of the eight-week training. It is thought that the trainer can improve the lay-up skill without verbal feedback. In the study of Mirzeoğlu⁸ at all the cognitive field pre-test and post-test findings of the basketball unit of the groups that were taught by both computer aided instruction and traditional methods were found to be statistically significant. When the psychomotor domain pre-test and post-test findings of the groups were examined, it was stated that there was a statistically significant difference. According to the study, a significant increase in knowledge and performance in both groups depending on the program applied for knowledge and skills in cognitive and psychomotor domains supports our study.

In the comparison of lay-up skill scores of the control and test groups, a significant difference was found between the lay-up skills of the students who were given verbal feedback and those who were not given verbal feedback after eight weeks of training. Considering the average rank, it is seen that the average rank of the students in the test group is higher than the control group. According to these findings, it is thought that verbal feedback affects the lay-up skills of the students during eight weeks of training. The significant findings of the groups that received verbal feedback in the study in which the Müftüler^{9,13,14} examined the effect of verbal feedback and self-control on basic basketball skill learning supports our study^{15,16}.

CONCLUSION

There was a significant difference between the pre-test and post-test lay-up values of the test group. Considering the mean rank and total of the difference scores, it is seen that the observed difference is in favour of the positive ranks, that is, the post-test score. There was a significant difference between the pre-test and post-test lay-up values of the control group. Considering the average rank and total of the difference scores, it is seen that the observed difference is in favour of the positive ranks, that is, the post-test score. There was a significant difference between the final lay-up values of the test group and the control group. Considering the average rank and total, it is seen that the observed difference is in favour of the test group.

REFERENCES

1. Aktaş, İ. (2006). The effect of verbal and visual feedback on achievement and retention in learning forward, backward and

- handstand tumbling skills in primary school 6th grade gymnastics unit. Unpublished master's thesis. Abant İzzet Baysal University Institute of Social Sciences, Bolu.
2. Bee, R. B. Frances (1997). *Constructive Feedback*. Translated by: Aksu Bora and Onur Cankoçak, Gökçe Offset and Printing, Ankara.
3. Çamur H. (2001). The effect of live, video, video + live feedback on success in teaching dribbling and lay-up skills in basketball. Unpublished master's thesis. Hacettepe University Institute of Health Sciences, Ankara.
4. Guadagnoli, M. (2002). The efficacy of video feedback for learning the golf swing. *Journal of Sports Sciences*, 20(8), 615-622.
5. Kernodle, M. W. (2001). Verbal instruction for correcting errors versus such instructions plus videotape replay on learning the overhand throw. *Perceptual and Motor Skills*, 92(3_suppl), 1039-1051.
6. Kontinen, N., Mononen, K., Viitasalo, J., & Mets, T. (2004). The effects of augmented auditory feedback on psychomotor skill learning in precision shooting. *Journal of Sport and Exercise Psychology*, 26(2), 306-316.
7. Larson, J. R. (1984). The performance feedback process: A preliminary model. *Organizational Behavior and Human Performance*, 33(1), 42-76.
8. Mirzeoğlu, D., Aktaş, İ., Göcek, E., & Boşnak, M. (2006). The effect of computer assisted instruction on learning basketball skills. *Sports Management and Information Technologies*, 1(2).
9. Müftüler, M. (2005). Effects of verbal feedback and self-evaluation on learning fundamental basketball skills. Unpublished master's thesis. Middle East Technical University Institute of Social Sciences, Ankara.
10. Rothstein, A. L. (1976). Bridging the gap: Application of research on videotape feedback and bowling. *Motor skills: Theory into practice*, 1, 35-62.
11. Schmidt, R. A. (2004). *Motor learning and performance*.
12. Siedentop, D. (1991). *Generic instructional strategies*. James Bull (Ed), *Developing Teaching Skills in Physical Education*. (205-223), Mountain View, CA: Mayfield Publishing Co.
13. Ilkim M. Çelik T., Mergan B. (2021) Investigation of Sports Management Students' Perceptions and Attitudes towards the COVID-19 Pandemic, *Pakistan Journal Of Medical & Health Sciences*, Volume15 Issue 2 Page799-803,
14. Karaca Y., Ilkim M., (2021) Investigation Of The Attitudes Distance Education Of The Faculty Of Sport Science Students In The Covid-19 Period, *Turkish Online Journal Of Distance Education* Volume22, Issue 4, Page114-129
15. Özşarı A., Ilkim M. (2021) Investigation of the spiritual intelligence features of physically handicapped badminton players in terms of various variables, *International Journal Of Life Science And Pharma Research* , Pp.29-35
16. Özdemir M., Tanır H., Ilkim M., Özmaden M. (2017). The effects of 8 week exercise program on reaction time performance of hearing impaired students at 11-14 years of age, *SHS Web of Conferences*, Volume 37