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INFLUENCE OF VIDEO ANALYSIS INTEGRATED WITH SPECIFIC DRILLS ON SELECTED SKILL PERFORMANCE VARIABLES OF SCHOOL BALL BADMINTON PLAYERS

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ABSTRACT
The purpose of the present study was to examine the influence of video analysis with specific drills on selected skill performance variables among school ball badminton players. Seven school-level players aged between 15 and 17 years from ARH Ball Badminton Club, Dindigul, Tamil Nadu, were selected as participants. A single-group pre-test and post-test experimental design was adopted for the study. The independent variable was video analysis integrated with specific drills, while the dependent variables included selected skill performance variables such as low serve, underarm volley, and back row overhead twist smash. The skill performance variables were measured using standardised badminton skill tests, and scores were recorded in points. The collected data were analysed using descriptive statistics and a paired sample *t*-test to determine the significance of differences between pre-test and post-test scores at the 0.05 level of significance. The results of the study revealed significant improvements in all selected skill performance variables after the training intervention. The findings indicate that integrating video analysis with specific skill drills is an effective training strategy for improving technical performance among school ball badminton players.
Keywords: Video analysis, skill performance, ball badminton, specific drills, sports training, school athletes

Introduction

Technological advancements have significantly influenced modern sports training and performance evaluation. Among these developments, video analysis has emerged as an effective tool for assessing athletes' technical performance and providing corrective feedback during training sessions. Video-based feedback allows athletes to observe their own movements, identify technical errors, and compare their performance with ideal models. This visual feedback enhances motor learning by enabling athletes to analyze movement patterns through replay and slow-motion observation, thereby facilitating improvement in skill execution (Rhoads et al., 2014; Potdevin et al., 2018).

Augmented feedback plays an essential role in the acquisition and refinement of sports skills. Traditional coaching methods mainly rely on verbal instructions and demonstrations; however, video analysis provides an additional visual dimension that helps athletes better understand their movement patterns and technical errors. Studies in sports training have indicated that video-assisted instruction improves movement accuracy, coordination, and overall performance by facilitating deeper cognitive processing of performance-related information (Mödinger et al., 2022; Lorains et al., 2015). Ball badminton is a fast-paced indigenous racket sport widely played in India, particularly at school and collegiate levels. The game requires high levels of coordination, agility, timing, and stroke precision. Fundamental skills such as service, volley, and smash techniques play a crucial role in determining the performance of players. Previous studies have emphasized that systematic training programs focusing on skill development significantly improve the performance of ball badminton players (Arumugam & Subramanian, 2019; Kumar & Singh, 2017).Although modern performance analysis tools are widely used in many sports, their application in ball badminton training is relatively limited, especially at the school level. Integrating video analysis with specific skill drills may help players identify technical errors and improve their skill performance. Therefore, the present study was undertaken to examine the **effectiveness of video analysis integrated training on selected skill performance variables among school ball badminton players**.

Methodology

Participants

For the present study, seven school-level ball badminton players aged between 15 and 17 years were selected from the ARH ball badminton club, Dindigul, Tamil Nadu.

Variables

Independent Variable

Video analysis integrated with specific drills.

Dependent Variables (Skill Performance Variables)

- Low serve
- Underarm volley
- Back row overhead twist smash

Tests

S. No	*Dependent Variable*	*Test Item*	*Unit*
1	Low serve	Low serve test	Points
2	Underarm volley	Underarm volley test	Points
3	Back row overhead twist smash	Twist smash test	Points

Experimental Design and Statistical Techniques

The study employed a **single-group pre-test and post-test experimental design.** The participants underwent video analysis integrated training with specific drills aimed at improving selected skill performance variables.

Descriptive statistics, including mean, standard deviation (SD), and standard error of the mean (SEM), were calculated to characterise the distribution of the data. A paired-samples t-test was used to assess significant differences between pre-test and post-test scores. The level of significance was set at **0.05**.

Results

Low Serve

Table 1
Mean difference, standard deviation, and *t* value of the video analysis with the specific drills group on low serve

Group	*Mean*	*MD*	*SD*	*SEM*	*df*	*t*	*Table Value*
Pre-test	13.00	8.28	2.16	0.81	6	15.88*	2.45
Post-test	21.28		1.79	0.68			

*Significant at 0.05 level.

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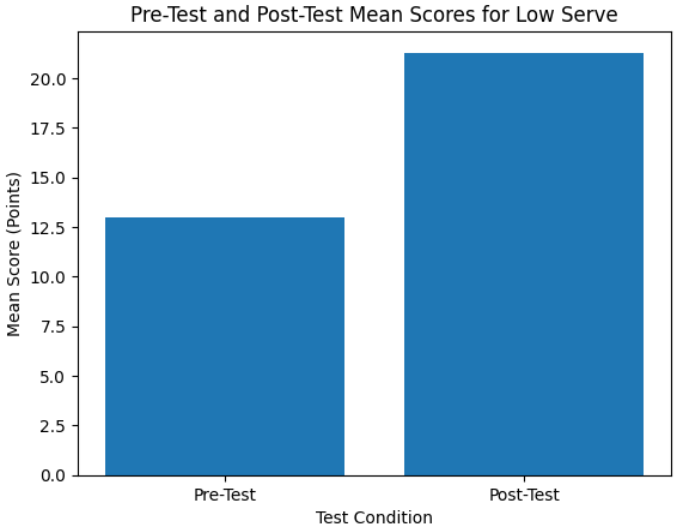
The obtained *t* value (15.88) was greater than the table value (2.45), indicating a significant improvement in low serve performance after the training program.

Figure 1

Pre-test and post-test mean scores of the video analysis with the specific drills group on low serve



Underarm Volley

Table 2

Mean Difference, Standard Deviation, and *t* Value of the video analysis with the specific drills group on Underarm Volley

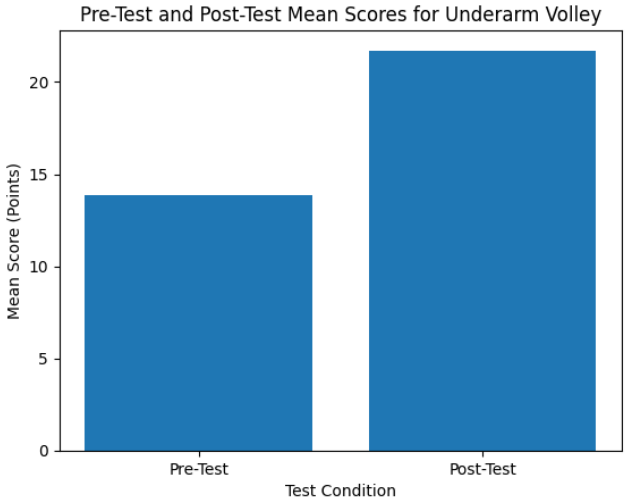
Group	*Mean*	*MD*	*SD*	*SEM*	*df*	*t*	*Table Value*
Pre-test	13.85	7.86	3.02	1.14	6	14.20*	2.45
Post-test	21.71		2.21	0.83			

*Significant at 0.05 level.

The obtained *t* value (14.20) exceeded the table value (2.45), indicating a significant improvement in underarm volley performance.

Figure 2

Pre-test and post-test mean scores of the video analysis with the specific drills group on underarm volley



Back Row Overhead Twist Smash

Table 3

Mean Difference, Standard Deviation, and *t* Value of the video analysis with the specific drills group on Back Row Overhead Twist Smash

Group	*Mean*	*MD*	*SD*	*SEM*	*df*	*t*	*Table Value*
Pre-test	13.85	8.29	2.41	0.91	6	15.88*	2.45
Post-test	22.14		1.57	0.59			

*Significant at 0.05 level.

The calculated *t* value (15.88) was higher than the table value (2.45), indicating a significant improvement in back row overhead twist smash performance.

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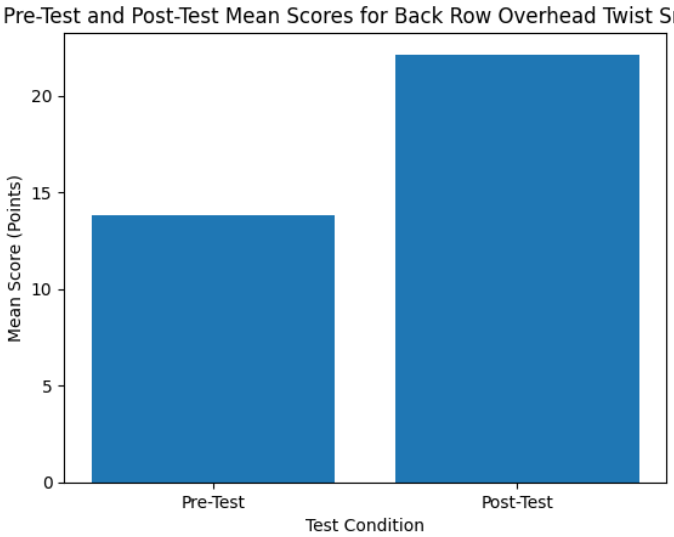
Figure 3
Pre-test and post-test mean scores of the video analysis with the specific drills group on the back row overhead twist smash.



Discussion

The findings of the present study revealed significant improvements in selected skill performance variables among school ball badminton players following video analysis integrated with specific drills. The results suggest that video-based feedback combined with specific skill drills enhances the technical proficiency of athletes.

Video analysis allows athletes to observe their own performance and identify technical errors, which helps improve skill execution. Rhoads et al. (2014) reported that video-based feedback facilitates motor learning by enabling athletes to compare their movements with ideal performance models.

Similarly, Potdevin et al. (2018) found that video-assisted instruction improves movement accuracy and technical performance by allowing athletes to analyze movements through replay and slow-motion observation. This type of augmented feedback enhances motor coordination and skill refinement.

The improvements observed in the present study are also supported by the findings of Lorains et al. (2015), who reported that video-based training improves decision-making ability and skill execution among athletes. In addition, Mödinger et al. (2022) demonstrated that video feedback enhances athletes' awareness of movement mechanics and contributes to better motor skill learning.

Therefore, the results of the present study confirm that **video analysis integrated with specific drills is an effective method for improving skill performance variables among school ball badminton players.**

Conclusion

Based on the findings of the study, it was concluded that video analysis integrated with specific drills significantly improved selected skill performance variables among school ball badminton players. Significant improvements were observed in low serve, underarm volley, and back row overhead twist smash after the training intervention. The findings highlight the importance of incorporating video-based feedback in sports training programs to enhance technical skill development among young athletes.

References

Arumugam, S., & Subramanian, P. (2019). Effect of specific training on selected skill performance variables among ball badminton players. *International Journal of Physiology, Nutrition and Physical Education, 4*(1), 1545–1547.

Kumar, R., & Singh, K. (2017). Influence of skill training on performance variables of ball badminton players. *International Journal of Physical Education, Sports and Health, 4*(2), 120–123.

Lorains, M., Ball, K., & MacMahon, C. (2015). Video-based perceptual training and its influence on decision making and agility in sport. *Sports, 4*(1), 1–15.

Mödinger, M., et al. (2022). Effects of video feedback on motor skill acquisition in sports training. *Journal of Human Sport and Exercise, 17*(2), 320–330.

Potdevin, F., et al. (2018). The use of video feedback to improve motor skill learning in physical education. *European Physical Education Review, 24*(3), 350–366.

Rhoads, M., et al. (2014). Video-based visual feedback to enhance motor learning in physical education: A systematic review. *German Journal of Exercise and Sport Research, 44*(3), 255–266.