

Influence Of E-Content Based Teaching on Selected Skills in Kabaddi

V.Sundar¹ & Dr.T.P. Yokesh²

¹Ph.D., Research Scholar, Alagappa University College of Physical Education, Karaikudi, Tamilnadu, India.

²Assistant Professor, Alagappa University College of Physical Education, Karaikudi, Tamilnadu, India.

KEYWORDS

Multimedia,
Coaching, Kabaddi

ABSTRACT

To achieve the purpose of this study 30 male kabaddi players from Alagappa University College of Physical Education, Karaikudi were selected as subjects and their age ranged between 18 and 25 years. Group 'A' underwent teaching & coaching with e-content package and Group 'B' undergone no training. Experimental group undergone respective schedule for six weeks on alternate days. Teaching & coaching session in the field lasted for 60 minutes. The subjective rating was done by three qualified coaches on each skill selected in this study. The rating was done on 10 points scale by each coach and average on each skill was taken as individual score. Analysis of covariance, was used. It was also found that practicing skills with e-content package shown significant improvement than the control group.

1. Introduction

The use of multimedia computer assisted instruction as a supplement to traditional teacher-led approach produces achievement effects superior to those obtained with traditional instruction alone Christmann & Badgett (2000) and Schacter & Fagnano (1999). These findings are relevant to students of different ages & abilities and learning in different curricular areas. Jolicoeur & Berger (1986) stated the need for more empirical studies to prove that a software usage does improve learning. Empirical testing of multimedia effectiveness is not done extensively (Zane & Frazer, 1992). Kabaddi is getting popular after the rise of Pro Kabaddi and needs lot of research to promote the game world wide. The purpose of this study was to examine the influence of e-content based coaching on selected skills in Kabaddi.

Kabaddi is a traditional Indian sport that requires a unique combination of physical agility, mental sharpness, and teamwork (Sudhakar HH (2014), Nataraj HV (2008), Khanna GL (1996), Dey SK (1993), Majlesi M (2012)). With its growing prominence on both national and international platforms, there is a rising demand for research that can further the game's development. E-content-based coaching which uses multimedia tools for training . It could potentially change skill acquisition and performance in Kabaddi. By using such technology, athletes may benefit from more structured, visually engaging, and repetitive learning opportunities. It could complement and even surpass traditional coaching methods (Patel MM (2014), Mangesh P (2012)).

The purpose of this study is to examine the influence of e-content-based coaching on selected skills in Kabaddi. Specifically, it aims to explore whether multimedia-assisted training can lead to significant improvements in skill acquisition and performance among Kabaddi players when compared to conventional coaching or no training. Through this research, we hope to contribute to the growing body of knowledge surrounding Kabaddi training methodologies. It is useful to promote sport more effectively on a global scale.

2. Methodology

To achieve the purpose of this study 30 male kabaddi players from Alagappa University College of Physical Education, Karaikudi were selected as subjects and their age ranged between 18 and 25 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent teaching & coaching with e-content package and Group 'B' undergone no training. The teaching & coaching with e-content group were shown the content developed

electronically by the investigators and the other group was kept control. Experimental group undergone respective schedule for six weeks on alternate days. Teaching & coaching session in the field lasted for 60 minutes. The skills namely hand touch, toe touch, thigh hold, ankle hold, in Kabaddi were selected as variables. The subjective rating was done by three qualified coaches on each skill selected in this study. The rating was done on 10 points scale by each coach and average on each skill was taken as individual score. Analysis of covariance was used.

3. Result and Discussion

The results were presented in the following tables,

Table – I. Descriptive Analysis of Selected Skills Of Teaching & Coaching Combined With E-Content Package Group

Sl.No	Skills	Pre Test Mean	SD (±)	Post Test Mean	SD (±)	Adjusted Mean
1	Hand touch	3.26	1.09	8.13	0.74	8.13
2	Toe touch	4.53	0.91	7.86	0.73	7.84
3	Thigh hold	4.00	0.92	7.33	1.11	7.38
4	Ankle hold	3.53	1.12	7.66	0.81	7.63

The above table documents the pre & post tests means, standard deviations and adjusted mean values of teaching & coaching with e-content package group on selected skills in Kabaddi.

Table – Ii Descriptive Analysis Of Selected Skills Of Control Group

Sl.No	Skills	Pre Test Mean	SD (±)	Post Test Mean	SD (±)	Adjusted Mean
1	Hand touch	3.20	1.08	3.86	0.74	3.86
2	Toe touch	4.33	0.72	4.76	0.69	4.18
3	Thigh hold	3.53	1.12	3.60	0.63	3.54
4	Ankle hold	3.26	1.09	3.46	0.91	3.50

The above table documents the pre & post tests means, standard deviations and adjusted mean values of control group on selected skills in Kabaddi.

Table – Iii Computation Of Analysis Of Covariance On Teaching & Coaching With And Without E-Content Package Groups On Selected Skills In Kabaddi

Sl. No	Skills	Source of Variance	Sum of Squares	df	Mean Square	F
1	Hand touch	BG	136.54	1	136.54	238.95*
		WG	15.42	27	0.57	
2	Toe touch	BG	103.85	1	103.85	211.93*
		WG	13.47	27	0.49	
3	Thigh hold	BG	104.83	1	104.83	132.40*
		WG	21.37	27	0.79	
4	Ankle hold	BG	126.12	1	126.12	180.82*
		WG	18.83	27	0.69	

* Significant at 0.05 level

*F 0.05 (1,27) = 4.21

In table-III the results of analysis of covariance on hand touch, toe touch, thigh hold and ankle hold were 238.95, 211.93, 132.40 & 180.82 was greater than the required value 4.21 at 0.05 level of confidence. Since the observed 'F' value was greater than the table 'F' value on all selected variables. Hence there exists significant difference among the groups.

Figure I: Showing the mean values of teaching & coaching with e-content package group on selected skills in Kabaddi.

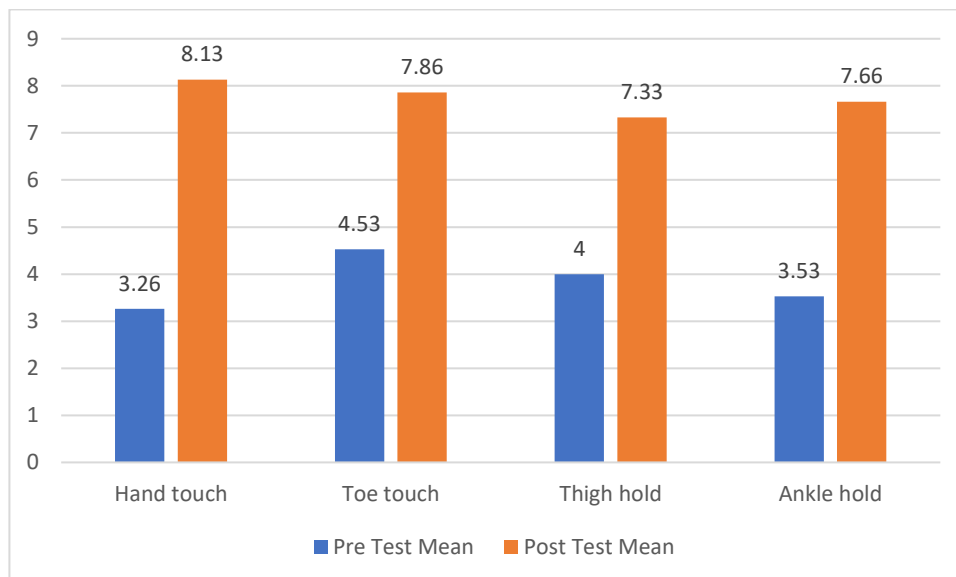
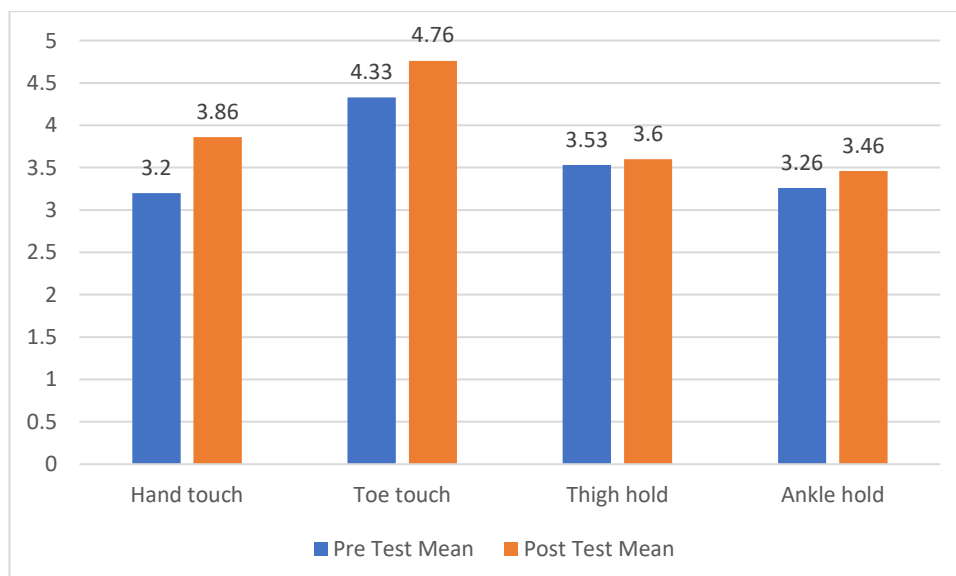


Figure II: Showing the mean values of control group on selected skills in Kabaddi.



Results

From the analysis of data, the following conclusions were drawn.

1. It was found that the teaching & coaching combined with e-content package showed significant improvement on all selected skills in Kabaddi.
2. It was also found that practicing skills with e-content package shown significant improvement than the control group.

The results clearly demonstrate that the group which underwent teaching and coaching combined with the e-content package showed significant improvements in all selected Kabaddi skills. The

experimental group displayed marked advancements in hand touch, toe touch, thigh hold, and ankle hold, as evidenced by the substantial increases in their post-test scores compared to the pre-test scores. On the other hand, the control group, which did not receive any multimedia-based intervention, exhibited little to no improvement in performance, indicating that traditional training methods alone may not be as effective in developing technical skills in Kabaddi players. The significant F-values obtained from the ANCOVA further validate that the differences between the groups were not due to chance but were the direct result of the e-content-based intervention. The effectiveness of multimedia tools in enhancing learning and skill development has been documented in various fields, and this study adds to the growing body of evidence that supports their use in sports coaching. The use of e-content provided the players with more interactive, repetitive, and visually engaging learning opportunities, allowing them to refine their skills more effectively than those in the control group.

4. Conclusion and future scope

This study highlights the potential of e-content-based coaching as a valuable tool for enhancing skill development in Kabaddi players. The findings suggest that incorporating multimedia tools into training can lead to significant improvements in performance compared to traditional methods or no training at all. By offering interactive and visually enriched content, e-content allows athletes to grasp complex skills more effectively and retain information through repetitive, structured learning. The significant improvement observed in the experimental group reinforces the idea that modern teaching approaches when integrated with traditional coaching, can enhance the overall training experience. As Kabaddi continues to gain global popularity, adopting innovative training methods like e-content-based coaching can contribute to the game's growth, further refining player skills and promoting the sport to a wider audience. Future research should explore the long-term effects of such training methods and extend their application to different age groups and skill levels in Kabaddi and other sports.

Reference

- [1] Sudhakar HH, Majumdar P, Umesh V, et al. Second to fourth digit ratio is a predictor of sporting ability in elite Indian male kabaddi players. *Asian J Sports Med.* 2014;5(3):e23073.
- [2] Nataraj HV, Kumar MC. Motor ability variables as predictors of performance of kabaddi. *J Sports Sports Sci.* 2008;31(3):12-8.
- [3] Khanna GL, Majumdar P, Malik V, et al. A study of physiological responses during match play in Indian national Kabaddi players. *Br J Sports Med.* 1996;30(3):232-5.
- [4] Kumar, S. Aanjan, P. Karthikeyan, S. Aanjana Devi, S. Poonkuntran, V. Palanisamy, and V. Navatharani. "Protecting Medical Images Using Deep Learning Fuzzy Extractor Model." In *Deep Learning for Smart Healthcare*, pp. 183-203. Auerbach Publications, 2024.
- [5] Dey SK, Khanna GL, Batra M. Morphological and physiological studies on Indian national kabaddi players. *Br J Sports Med.* 1993;27(4):234-42.
- [6] Singhai, A., Aanjankumar, S., & Poonkuntran, S. (2023, May). A Novel Methodology for Credit Card Fraud Detection using KNN Dependent Machine Learning Methodology. In *2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC)* (pp. 878-884). IEEE.
- [7] Majlesi M, Azadian E, Rashedi H. Correlation between anthropometric and physical fitness traits: A case study in Hamedan kabaddi team. *World J Sports Sci.* 2012;7(4):181-4.
- [8] Kalphana, K. R., S. Aanjankumar, M. Surya, M. S. Ramadevi, K. R. Ramela, T. Anitha, N. Nagaprasad, and Ramaswamy Krishnaraj. "Prediction of android ransomware with deep learning model using hybrid cryptography." *Scientific Reports* 14, no. 1 (2024): 22351.

- [9] Patel MM, Dutta NK. A review on selected physical and physiological components of inter collegiate kabaddi and kho-kho players. *GRA Global Res Anal*. 2014;4:139-47.
- [10] Kumar, S. Aanjan, Monoj Kumar Muchahari, S. Poonkuntran, L. Sathish Kumar, Rajesh Kumar Dhanaraj, and P. Karthikeyan. "Application of hybrid capsule network model for malaria parasite detection on microscopic blood smear images." *Multimedia Tools and Applications* (2024): 1-27.
- [11] Mangesh P. Significance of body height and its relation with skills used by shiv chatrapati chashak kabaddi player. *Shodh Sangam*. 2012;Special Issue:223-8.
- [12] Christmann. E. P., & Badgett. J. L. (2000). The comparative effectiveness of CAI on collegiate academic performance. *Journal of Computing in Higher Education*, 11(2), 91-103.
- [13] Elayaraja.M., Nageswaran, A. S. & Viswanathan, J. (2010). Effect of Interactive Multimedia (IMM) on Teaching basic Anatomy in Physical Education. *International conference proceedings on e-resources in higher education issues, developments, opportunities and challenges*. India.
- [14] Ivin.K.J., Suresh, K.M., Needhiraja,A. and Kalidasan, R. (2010). E-content based learning in physical education-with special reference to Kabaddi. *International conference proceedings on e-resources in higher education issues, developments, opportunities and challenges*. India.
- [15] Jolicoeur, K., & Berger, D. E. (1986). Do we really know what makes educational software effective? A call for empirical research on effectiveness. *Educational Technology*, 26 7-11.
- [16] Morrison, C. S., & Reeve, E. J. (1988). Effect of instruction and undergraduate major on qualitative skill analysis. *Journal of Human Movement Studies*, 15, 291-297.
- [17] Schacter, J., & Fagnano, C. (1999). Does computer technology improve student learning and achievement? How, when, and under what conditions?. *Journal of Educational Computer Research*, 20(4), 329-343.
- [18] Wilkinson, C. (1997). *Software: Choose a winner!* Strategies, 10, 13-16.
- [19] Wilkinson, C., Illier, R., Padfield, G., & Harrison, J. (1999). The effects of Volleyball software on female junior high school students' Volleyball performance. *Physical Educator*, 56(4), 202-209.
- [20] Zane, T., & Frazer, C. G. (1992). The extent to which software developers validate their claims. *Journal of Research on Computing in Education*, 24(3), 410-419.