



The effect of Linear and Nonlinear Training on the Impact of Long Badminton Service in People with Down Syndrome

Oral Presentation

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Abstract

Introduction: This study aimed to investigate the effectiveness of nonlinear and linear training methods in moving and acquiring badminton long service skills. Forty-five participants with Down Syndrome were trained in three groups of badminton long service using both linear and nonlinear training methods and the control group.

Methods: The linear method is based on traditional methods. In contrast, the non-linear method is based on ecological dynamics (using the participants' knowledge of the environment in which badminton was played and with the help of educational videos that They were shown) designed and executed. The accuracy of the extended service, which included passing the ball over the net, was selected for further analysis. Frequency and descriptive tests were used for data normality, and then MANOVA method was used to examine the significant differences between the groups.

Results: It should be noted that all three groups were more advanced in long service than the pre-test. It was found that the nonlinear approach in passing the ball over the net in the long badminton service was similar to the linear group, but considering the disorder of the participants and unconscious processing, individual differences and special needs of the task are more effective.

Conclusion: The current study showed that by using the different training methods like linear and mostly nonlinear methods, it is possible to train people with disorders like Down Syndrome; the coaches can improve the quality of those people.

Keywords

Linear training; Nonlinear training; Badminton; Physical education; Down syndrome; Learning