



## The Effect of Cognitive Games on Mental Rotation of Badminton Expert Junior Girls

### Poster Presentation

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### Abstract

**Introduction:** Various studies have shown that play and motor activities, especially games that involve a person in cognitive problems, can improve the functioning of the nervous system and cognitive processes in people; even this effect has been seen in people with cognitive disorders. Parents often think about their child learning to play with a device and engaging in important physical and cognitive activities for their child's development. Therefore, the aim of the present study was to investigate the effect of cognitive games on the mental rotation of skilled badminton teenage girls in Kermanshah.

**Methods:** The research method was semi-experimental with pre-test, post-test, and control group design. The sample of this study was selected in an accessible and purposeful way: 30 skilled girl badminton players with the age range of 12-14 years, Subjects with an average weight of 44 kg and an average height of 150 cm were randomly divided into two groups (15 in the experimental group, 15 in the control group). Were located the subjects were first assessed in the pre-test, then the experimental group participated in the cognitive games exercise, which included eight weeks and two sessions per week for 45 minutes in their training program. Both groups participated in the post-test. Univariate analysis of covariance was used to compare pre-test and post-test and research groups.

**Results:** The findings showed a significant difference between the post-test in the experimental and control groups. This indicates that the intervention reduced the error in the variables of mental rotation.

**Conclusion:** In general, cognitive exercises for sixteen sessions have been effective and beneficial on the mental rotation of skilled badminton teenage girls.

### Keywords

Cognitive games-mental rotation; junior girls-badminton expert

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