



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2018; 3(1): 334-335

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www.theyogicjournal.com

Received: 23-11-2017

Accepted: 24-12-2017

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## Analyse of coordinative abilities among dancers and rhythmic gymnasts

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### Abstract

The purpose of the study was to compare the coordinative abilities among dancers and rhythmic gymnasts. The selected coordinative abilities twenty dancers and rhythmic female gymnasts in the age group of 19 to 23 were selected as subjects for the study. The data was collected by administering various coordinative ability tests as suggested by Peter Hirtz. All the tests used were demonstrated and explained to the subjects prior to their administration. The subjects were given a chance to practice to become familiar with the test through practice. There was no time limit in performing the test but the subjects were required to put in their best. To find out the significant difference between dancers and rhythmic gymnasts in the five coordinative abilities t-test was used for testing. The level of significance was chosen at 0.05 level.

**Keywords:** Coordinative abilities, dancers, rhythmic gymnasts

### Introduction

Gymnastics is a technical sport in which performance is evaluated on the basis of the technique of different kinds of simple and complicated elements on various apparatuses.

Gymnastics is one of the spectacular sports which has laid its magic spell and which is gaining increasing popularity all over the world. The art of gymnastics calls for experimental skill, extraordinary stamina, intensive practice, unusual presence of mind, lots of courage and above all total equilibrium of mind, body, bringing about a synthesis and harmony of mental and physical aspects of compose poetry in gymnastics.

Gymnastics is the art of performing various types of physical exercise and feats on skills on different kinds of apparatus and also on floor.

Dance is one of the essential forms of human's expression and communication. People seem to dance for a variety of reasons from its birth, and have developed different dance types as different forms of expression, as members of a socio-cultural community, an aspect which forces the role of dance as a particular form of social interaction and brings to dance the character of a culturally determined "program" where social, historical and environmental factors together with the physical, psychological and mental features of the individual. Dance has developed different types throughout its historical path. However, dance as a form of physical activity entails great physical and psychological demands.

The purpose of the study was to compare the coordinative abilities among dancers and rhythmic gymnasts. The selected coordinative abilities were: -

- (i) Orientation ability
- (ii) Differentiation ability
- (iii) Reaction ability
- (iv) Balance ability
- (v) Rhythm ability

### Collection of data

Twenty dancers and rhythmic female gymnasts in the age group of 19 to 23 were selected as subjects for the study. The data was collected by administering various coordinative ability tests as suggested by Peter Hirtz.

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All the tests used were demonstrated and explained to the subjects prior to their administration. The subjects were given a chance to practice to become familiar with the test through practice. There was no time limit in performing the test but the subjects were required to put in their best.

**The data collections for all selected coordinative abilities test are follows:**

1. Numbered Medicine Ball Run Test (to measure the Orientation Ability)
2. Backward Medicine Ball Throe Test (to assess the Differentiation Ability)
3. Long Nose Test (to measure the Reaction Ability)

4. Ball Reaction Exercise Test (to measure the Reaction Ability)
5. Sprint at Given Rhythm (to measure the Rhythmic Ability)

**Statistical procedure**

To find out the significant difference between dancers and rhythmic gymnasts in the five coordinative abilities t-test was used for testing. The level of significance was chosen at 0.05 level.

**Findings**

**Table 1:** Comparison of the means of coordinative abilities of dancers and rhythmic gymnasts

S. No.	Variables	Mean of dancers	Mean of Rhythmic Gymnasts	DM	QDM	t
1.	Orientation ability	16.77	16.67	0.1	0.40	0.811
2.	Differentiation ability	7.1	7.15	0.005	0.05	0.944
3.	Reaction ability	1.63	1.68	0.05	0.71	0.47
4.	Balance ability	6.99	6.90	0.09	0.32	0.787
5.	Rhythm ability	7.15	7.1	0.11	0.28	0.74

\*Significant  $t_{0.05(38)} = 2.02$

**Results and Discussion**

1. There was no significant difference between dancers and rhythmic gymnasts in the orientation ability as the calculated value (0.81) was less than the table value (2.02) at .05 level of significant.
2. In case of differentiation ability of dancers and rhythmic gymnasts no significant difference was seen as the calculated value (0.94) was less than the table value (2.02) at .05 level of significance.
3. In the case of reaction ability, there was no significant difference as the calculated value (0.47) was less than the table value (2.02).
4. Balance ability also had also similar outcome as there was no significant difference between dancers and rhythmic gymnasts as the calculated value (0.78) was less than the table value (2.02).
5. The same case was observed in the case of rhythmic ability of the dancers and rhythmic gymnasts as the calculated value (0.74) was less than the table vale (2.02).

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