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A comparative study on kinaesthetic perception and reaction ability between Kathak and Aerobics dancers

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Abstract

Dance is a form of art that normally involves rhythmic movement of the body and accompanied with music. When it comes to health dance can be a very effective way of establishing a lasting healthy living. Young girls can be engaged in physical activity through dance. Vigorous dance which does not associate any particular form or rhythmic movements can attribute to better health and well-being. The purpose of the study was to compare the Kinesthetic Perception and Reaction Ability among Kathak and aerobics dancers. The study was confined to 25 female dancers randomly selected as subjects from different dance academy of Paschim Medinipur and North 24 Parganas, west Bengal, age ranging from 13 to 15 years. 25 female aerobics dancers randomly selected as subjects from different dance academy of Paschim Medinipur and North 24 Parganas. Further the variables of the study was Kinesthetic Perception, Foot Reaction and Hand Reaction Ability. To compare the variables 't' test were used at 0.05 level of significant. The result showed that significant differences were found in Kinesthetic Perception (2.09*), Hand Reaction Ability (5.16*), and Ability (2.65*) between Kathak and aerobics dancers.

Keywords: Kinesthetic perception, Reaction ability, Kathak and Bharatanatyam Dancers.

Introduction

Performance, in the history of the world is crucial and it depends upon individual characteristically related matter. Better performance is required to become successful in our life. It was proved that, in the past, human being motivated in their physique and cultured to improve their fitness for every success, especially in wars. At that time, physical quality is important to conquer and rule the country. It is a symbol of brave and courage. This type of quality is directly or indirectly depends upon culture, tradition, genetics and way of leaving. Today everything is quite change, but fitness has marked its importance in modern generation. Its unique role cannot be criticized. Physical fitness is a broad thing and each and every component has its importance and necessity.

In dance kinaesthetic sense and reaction ability and flexibility are important components of motor performance because varieties figure of movement with appropriate music and rythem have been done therefore kinaesthetic sense and reaction ability and flexibility is essential elements, it almost necessary for any types of dancers. Kinaesthetics the sense which helps us detect weight, body position, or the relationship between movements in our body parts such as joints, muscles and tendons. In short, it is the muscle sense.

“Dance, although it has a visual component, is fundamentally a kinaesthetic art whose apperception is grounded not just in the eye but in the entire body”.

On the basis of any remarkable and amazing aspects of every one of our commonly designated five senses: taste, touch, smell, sight, and hearing. Human senses are endlessly interesting and in ways that we all can almost always personally experience because we are sensory beings. Yet, as is obvious, as we ticked through the various senses, while each in some way is involved or might be involved, none seemed to be essential to dancing. Taste seems negligible. Touch is certainly present in that dancers are always in contact with the floor and sometimes with one another, yet that didn't seem sufficient as “the dancer's sense.” Smell is possible in that dancers sweat and can smell themselves and other dancers, but that won't serve very well for the dancer's sense. Dancers usually depend on sight to relate to the space and to other dancers, but it certainly isn't necessary.

The sense most commonly invoked at this point is often referred to as the “kinaesthetic sense” and sometimes as “proprioception.” Kinaesthetic refers obviously to movement and we are somehow aware of our own movement, of the position of our bodies and the parts of our bodies by means other than the common five senses. Proprioception refers to neurological receptors located in the muscle fibres and the ligaments that sense load and tension on muscles and send that information to the spinal column or to the brain to let the brain know how things are going at the muscular and joint level. Proprioceptors functions to prevent injury, to maintain balance, to allow for awareness (usually unconscious) of the location of body parts relative to the rest of the body and to surrounding space. The kinaesthetic sensory motor proprioceptive gives integrate body and brain, experience and conceptual knowledge, perception and the perceptible. Dancing, as moving, both benefits from this aspect of all human movement and plays its own part in being heuristic as well as expressive, that is dancing is a means of investigating the world as well as a way of performing agentive actions. Dancing creates meaning and value as it also expresses meaning and value.

In dance reaction ability is an aspect of lead & follow that is seldom taught but a very important component to couples dancing. Reaction time affects both you and your partner and can be compensated for. The faster the dance, the more important reaction time becomes. The first component of reaction time affects how our body changes direction; moves from being stopped; or stops from moving. Any new dancer to Country Two Step finds reaction time a roadblock in moving forward on a quick. Thinking more about this concept we realize that while our feet are stepping to the beat of the dance our body is constantly and smoothly moving forward. If we absorb the reaction time needed to get moving in the first place with a forward body movement we also find that we must move our body before the first beat of music. This motion is made in anticipation of the first step. The second component to reaction time is thinking. (Don't laugh!) The newer the dancer, the more thinking before moving. Thinking takes time and, thankfully dancing mostly involves repetitive skills and so called "muscle memory. The third component is the reaction time of your partner. The leader has the responsibility to gauge how quickly the follower can react and move. The leader must lead the follower before she commits herself to a move, a direction of motion, or a step. The reaction time is a very real component of dancing. Be aware of it and overcome it with skill and practice. According to Judy and I have developed an easy exercise for couples to use in becoming aware of lead, follow & connection. If you are interested come see us at our Sunday Social dance.

Purpose of the study

The purpose of the study is to find out the difference on Kinaesthetic Perception and Reaction Ability between Kathak and Aerobics Dancers.

Methods

25 female Kathak dancers and, 25 female Aerobics dancers from Medinipur and North 24 Parganas Districts were selected randomly for this study.

- Kinesthetic Perception was measured by the Distance Perception Jump and is recorded in centimeters.
- Hand Reaction Ability was measured by The Nelson Hand Reaction and is recorded in centimeter.
- Foot Reaction Ability was measured by The Nelson Foot

Reaction Test and is recorded in centimeter.

To compute all the results ‘T’ test was employed at 0.05 level of significant.

Finding

Table: Mean, Standard Deviation and ‘t’ Ratio of Kinesthetic Perception and Reaction Ability among Kathak and Aerobics Dancers

Variables	Kathak Dancers	Aerobics Dancers	‘t’ Ratio
	MEAN±SD	MEAN±SD	
Kinaesthetic Perception	58.09±24.67	44.63±20.24	2.091*
Hand Reaction	93.34±27.30	136.85±30.99	5.160*
Foot Reaction	75.32±21.97	95.78±30.76	2.652*

Significant at 0.05 level of confidence, Tab 0.05 (48) =2.000

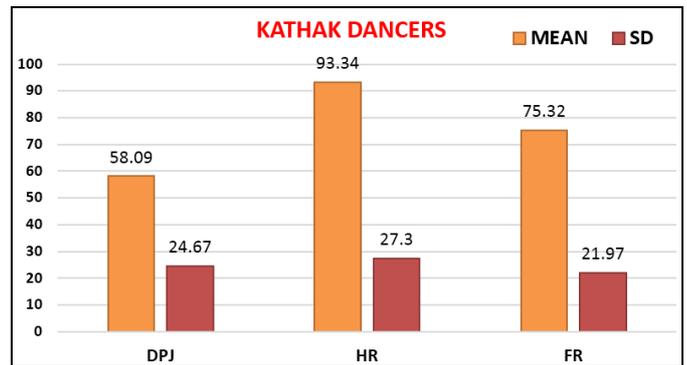


Fig 1: Graphical presentation of Mean and SD of Kathak Dancers

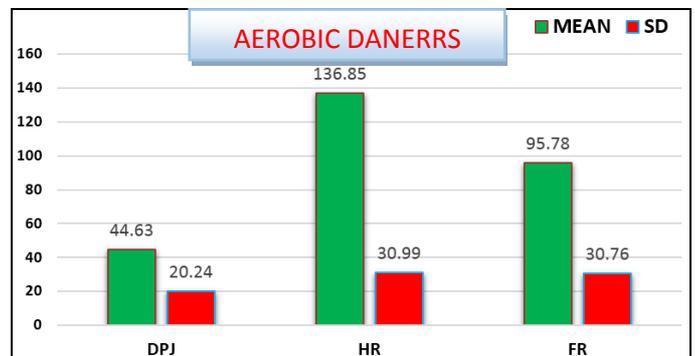


Fig 2: Graphical presentation of Mean and SD of Aerobics Dancers

Discussion of Finding

From the Table it revealed that the Mean and Standard Deviation of Kinaesthetic perception in Kathak Dancers was 58.09±24.67, as well as in Aerobics dancers was 44.63±20.24 and ‘t’ ratio between two groups was 2.019*, there was significant difference between two groups. Mean and Standard Deviation of Hand Reaction Ability in Kathak Dancers was 93.34±27.30, as well as in Aerobics dancers was 136.85±30.99 and ‘t’ ratio between two groups was 5.160*, there was significant difference between two groups. Mean and Standard Deviation of Foot Reaction Ability in Kathak Dancers was 75.32±21.97, as well as in Aerobics dancers was 95.78±30.76 and ‘t’ ratio between two groups was 2.652*, there was significant difference between two groups.

Conclusion

On the basis of obtained results following Conclusions were drawn:

- Significant difference was found in kinesthetic perception between Kathak and Aerobics dancers.
- Significant difference was found in Hand Reaction Ability between Kathak and Aerobics dancers.
- Significant difference was found in Foot Reaction between Kathak and Aerobics dancers.

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