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Comparison of Agility Between HPE and Non-HPE Girl Students of Secondary School

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Abstract

The main purpose of this research paper was to compare agility between HPE and Non- HPE students +2 level in Jana Prabhat secondary school, Kathmandu. The total of 40 students were taken for the study. The participants were 20 girl students of HPE and 20 girl students Non-HPE. These respondents were taken through purposive cum random sampling method. H. D. Edgren and AAHPER Youth Physical Fitness test was used by the researcher to find out the agility of HPE and Non- HPE students. The test battery included two test items namely shuttle run, Side-step and squat thrust. According to the significance comparison of the data with the help of z-test, the researcher found that no significance different in shuttle run, side step and squat thrust.

Keywords: Agility, shuttle run, side-step, squat thrust, test batteries, ability, balance.

Introduction

Physical education is one of the behavioral and practical subjects. The aim of physical education is to develop physical, mental, social and emotional aspect of students through the physical activities (Bailey, 2006). In physical education, students get many more opportunities for practicing and learning varieties of recreational games, sports and other athletic activities that are of immediate value and that also can be enjoyed throughtout life (Bocarro et al., 2008).

Physical education is important part of general education and educational process that has on its aim for the improvement of human performance and enhancement of human development through the medium of physical activities and sports. It helps people to adjust in society. It makes human life more creative and productive. The main objective of physical education is to help a person for all round development like physical, mental, social, intellectual and emotional aspects. Students with HPE can keep sound mind, promote human performance, maintain emotional balance and good posture and healthier life. It is based on physical activities and sports. Practice of physical activities not only develops sportsmanship in students but also their discipline, good moral and proper use of leisure time. It is concerned with the development of knowledge and attitudes. Physical education helps for conductive lifelong learning and life span participation in game and sports field (Bucher, 1992).

In context a physical education in Nepal there was only one college established in

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2013, where physical education was taught as compulsory and formal subject. It was college of education (Maharjan, 2055). Later in 2028 BS. the government applied the curriculum all over the country in which the physical education was included as a subject in faculty of education. Physical in that time and as education program has been continuously conducted since then in certificate and Bachelor level as compulsory, major and minor subjects from 2028 B.S. According to the new curriculum 2049, the health and physical education is compulsory subject for class 1 to 8 and it is an optional subject for class 9 and 10. Similarly, in +2 level course also, physical education is included as an optional subject. The students have got a chance to learn about different types of games and sports like volleyball, basketball, football, Kho-Kho, Kabadi, Cricket, Badminton, table tennis, Athletics, etc. By involving in different sports, they learn about discipline, friendship co-ordination etc. Physical agility is also basic factor of physical and motor development.

It is significantly related to good health, longevity and well being for all people. An appropriate level of agility can be developed through the physical education and sports programs. It also helps us develop other factors such as respiratory and cardiovascular efficiency, flexibility, endurance, strength which are necessary daily needs of human beings.

Agility refers to the controlled ability change position and direction rapidly and accurately (Bosco, 1983). It may be defined as the physical ability which enables an individuals to rapidly change body position and direction in a precise manner (Nelson and Johnson, 1988). It is a factor which affect motor ability of human beings for the better performance in different physical activities such as stepping shot running playing different Sports and Games.

Agility is an important aspect and component of motor ability which is the most essential factor for the better performance of the players in every game and sports. Motor ability is the representative of the fundamental or general abilities for various physical activities. The basic components of the motor ability are agility, speed, power, reaction time and balance which are essential for better and improved sports and physical performance.

It helps in predicting potential in different, sports activites. Through the test of measuring agility, physical education teacher can determine which students in the class are more agile and which ones need for the training and work in agility in order to improve performance in their particular sports activities.

Agility is not similar for all students. It is different from place to place and person to person. It is necessary to study the agility level of students. There are many factors such as economic condition, family and bodily condition along with cultural values, health and fitness. It is the cause of difference in agility of female students in Nepal. This research was intended to evaluate the agility of HPE and Non-HPE girl students from +2 level.

Objective

The main purpose of this paper was to compare the agility between the health and physical education and non-health and physical education girl students.

Methodology

The research was based on descriptive design in quantitative nature. Data used in this paper were collected from the primary sources. To collect the data, the researcher applied the two ready made standardized, test items of agility, which were already recommended by H.D. Edgren and AAHPER Youth Physical Fitness Test Battery. The data were compared between health and physical education and non-health and physical education girl students +2 level of Jana Prabhat Secondary school, Kathmandu. Purpusive cum random sampling method were used in selecting respondents. They were selected 20 girl students of health and physical education and 20 girl students of non- health and physical education of +2 level from Jana Prabhat secondary school, Kathmandu. All together there were 40 respondents. The collected data were analyzed by simple statistical method such as mean, standard deviation and z- test etc.

Finding and Discussion

The researcher applied the two items of H.D. Edgren and AAHPER Youth Fitness test and compare the itemwise agility between +2 level health and physical and non-health and physical girl students.

Table 1 : Comparison of Shuttle Run between HPE and Non-HPE students.

Description	HPE	Non-HPE
Mean	12.72	13.02
Standard deviation	0.79	0.63
Coefficient of variation	6.21	4.83
Calculated z-value	0.31	
Tabulated z- value at 0.05 level	1.96	
Conclusion	Not Significant	

The above table shows that the mean score of HPE girl students is 12.72 second and the mean score of Non-HPE girl students is 13.02 seconds on shuttle Run test. From the duration of time of mean score, the HPE girl students have finished shorter time than Non- HPE girl students. Hence, from the mean of raw score, HPE girl students

were faster than Non-HPE ones in fix distance running with changing direction that means HPE student are more agile than the Non-HPE students. This shows that the

mean score of shuttle run of girl students of HPE were slightly better than non HPE girl students. The calculated z-value was 0.31 and the tabulated z-value is 1.96 at 0.05 level. Therefore, it was found that there is no significant difference between HPE and Non-HPE girl students.

Table 2: Comparison of side-step between HPE and Non-HPE students.

Description	HPE	Non-HPE
Mean	18.1	19.5
Standard deviation	2.07	2.47
Coefficient of variation	11.43	12.66
Calculated z-value	1.38	
Tabulated z- value at 0.05 level	1.96	
Conclusion	Not Significant	

The table 2 shows that mean score of HPE girl students is 18.1 and mean score of Non-HPE girl students is 19.5 in side step test. The mean score of HPE students is slightly better than Non-HPE Students. The researcher used z-test to see the significant difference between the means of two groups. Calculated z value was 1.38 and the tabulated z - value is 1.96 at 0.05 significance level. The Calculated z value is smaller than tabulated z value at 0.05 level of significance. So, it was found that there is no significant difference between the mean of two groups. By seeing the difference between the mean score and the difference at 0.05 level of significance the researcher concluded that HPE girl students showed better performance in side-step than Non HPE girl students.

Table 3: Comparison of Squat Thrust between HPE and Non-HPE students.

Description	HPE	Non-HPE
Mean	13.20	12.10
Standard deviation	1.41	1.76
Coefficient of variation	10.68	14.54
Calculated z-value	1.54	
Tabulated z- value at 0.05 level	1.96	
Conclusion	Not Significant	

The above table shows that the mean score of HPE students is 13.20 and mean score of Non-HPE students is 12.10 in squat thrust. The mean score of HPE student is slightly higher than Non-HPE student. The researcher used z-test to see the no significant different between the means of two groups. Calculated z-value was 1.54 and the tabulated z-value is 1.96 at 0.05 significance level. The calculated z-value is smaller than tabulated z-value at 0.05 level of significance. Therefore, it was found that there is no significant difference between of mean score of HPE and Non-HPE students.

Conclusion

Test items of H. D. Edgren and AAHPER Youth Physical Fitness Test which includes shuttle run, side-step and squat thrust were used to measure agility of HPE and Non-HPE students. No significant difference was found between the means of HPE girl students and Non- HPE girl students while applying z- test at 0.05 level of significance level on shuttle run, Side-step and squat thrust test.

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