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Comparative study of selected physical fitness component of hilly and non-hilly region physical education student of West Bengal

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Abstract
Aim of the study was to evaluate and compare the motor fitness in Boy Hilly and non Hilly region of belonging West Bangal. involved in Physical fitness were selected to Test as subjects for this study. The researcher divided the entire 60 sample into Two groups. Boy Hilly and Non Hilly region (N=30), Hilly (N=30 Non Hilly) groups, which were compared with each other. tested on Explosive Power, 2.Musculer Endurance, 3. Speed, 4. flexibility. Agility. cardiovascular endurance In order to find out the significance of differences between Hilly region Physical education student Mean score:- 7.53, 26.9, 75.43, 11.31, 7.52 and 191.03.Non Hilly region Physical education student Mean score:- 6.46, 24.43, 71.66, 12.15, 7.74, and 198.16 Hilly (SD). 2.08, 3.89, 4.51, 0.56, 0.64, 15.94 Non Hilly (SD) 2.52, 3.51, 5.20, 0.83, 0.38, 25.56.Mean Deviation, 1.06, 2.47, 3.76, 0.84, 0.22, 7.13 (Dm) standard error of deferent of Mean. -0.59, 0.96, 1.25, 0.26, 7.07, 5.50 and t-ratio 1.78, 2.58, 3.01, 3.18, 0.31, 1.29. were computed. To measured Physical fitness component of Selected Subject five fitness component test was used it, 1. The present study was carried out with a view to compare the muscular strength, muscular endurance, agility, explosive strength, speed, and cardiovascular endurance, of hilly and non-hilly region players. The results Hilly and Non Hilly region Physical education Student The reason that physical exercise is going to develop fitness qualities and motor Physical fitness the Continuation Practice, and they have performed more, formulated hypothesis is Statistically is accepted. it was hypothesized that there might be significant difference in AAHPER fitness test battery between hilly and non-hilly region players.

Keywords: Hilly, non hilly, physical education student. AAHPER fitness test

1. Introduction
Each of us has been given at birth a set of essential genetic characteristics that can't be altered. We will be tall or short or somewhere in between because our ancestors were tall or short or somewhere between.

While we may be perfectly fit, in excellent health, we won't be able to run as fast as someone else in the same good condition simply because we have shorter legs or the width of our pelvis won't allow us greater speed. Some people have a naturally higher maximum oxygen uptake than others, and thus have more success in endurance competitions than those not similarly endowed; it might be the person with the shorter legs. Strictly speaking physical fitness means that a person possessing it met certain physical requirements. Those requirements may be anatomical (structural), Physiological (functional) or both. An anatomical fitness may require a person to be of a certain height and weight, or have specified dimensions of various parts of the body. Physiological fitness may require a person to be able to withstand certain temperature, or altitude, or able to perform specific physical tasks involving muscular efforts. A person may be perfectly fit to met some of those requirements and yet be unfit for others. However, a reasonable physical fitness programme based on individual needs and interests is a very logical solution for overcoming the harmful health effects from living a highly mechanized and technical society.

(Kansal, 1996) [10] found that physical fitness is not a static factor and it varies from individual to in the same person from time to time depending on factors. components including additional five motor performance variable (power, speed, agility, balance and reaction time), important mainly for success in sports.

In other word, motor fitness refers to the efficiency of basic movements in additional to the physical fitness.

(Dr. Yuwraj Shrivastava, Ganesh Khandekar Prem Shankar dwivedi) On the basis of the analysis of data the Basketball and Hand ball Players were having better mean values Explosive Power, Speed and Agility approximate similar and dissimilar mean miner values muscular endurance and flexibility Hand ball players. Performed better than the Basket ball male players.

Physical fitness is the capacity of the heart, blood vessels, lungs and muscles of function at optional efficiency. Optimal efficiency means the most favourable health needed for the enthusiastic and pleasurable participation in daily tasks and recreation activities. Optimal physical fitness make possible of life style that the unfit cannot enjoy. To develop and maintain physical fitness requires vigorous efforts by the total body.

(Amit Kumar) 2014 [11]. On the basis of the analysis of data the Rural Basket ball Players were having better mean values among speed and Explosive strength than Urban Basketball players. Basket ball Rural players performed better than the Urban male players. (Sandip Sankar Ghosh, Sayanti Banerjee 2015. It can be concluded from the results of the study that in speed, agility & sociability thenormal girls are better than the deaf and dumb girls but the flexibility of the Deaf & Dumb girls are better than the normal girls. (Anindya Bhowmik, Sujan Barman, Ajoy Bag.) 2015 [12]. On the base of t test the present study it was conclude that there is significant difference in power, agility and strength. It also conclude that Jangalmahal area both male & female students power, agility, and strength have better then non Jangal Mahal or normal area student.

A player or sports person lives in a particular space, geographical area in which he is familiar with nature's elements like water-falls, food, land, wind, trees. He has to face many challenges while living with these natural forces. Indirectly he develops himself into a mentally and physically strong character and person. His day to day activity like fishing, hunting, jumping, horse-riding, rafting, swimming, running etc makes him a skilled and strong person. He becomes strong while crossing these challenges in his life. In a way, his routine prepares him for the life's challenges. His physic becomes more strong, muscular and active. So he gets advantages in sports activity and games. While the non-hilly person or students receive some facility at home and in society. The hilly areas are unstable or difficult to work, walk or run. These areas create obstacles in running and walking. So the hilly area students are familiar with the challenges like how to maintain energy-level, strength and speed. It gives them benefit in sports like running and jumping where they can run or jump more easily or effortlessly than non-hilly students.

In the present study, with the help of different tools and methods the researchers have tried to investigate the difference in the performance of the hilly and non-hilly students. Physical education performs a pivotal role in the students' career, life and personality.

2. Methodology

2.1 Sample

Sixty (N=60)) subjects were randomly chosen for this study of which 30 (Hilly Student N=30) were (N=30) were Hilly and Non Hilly regions players. The age of the 18 to 25 ranged from years. They were selected from subjects was selected from University of west Bengal Selected five Physical fitness variable i.e. Speed, Agility, Muscular endurance, and Explosive power Component for the present study. The Physical fitness tests were followed to measure components. The measured by Speed, measured by 50mdash, measured by Agility measured by Shuttle Run Muscular endurance measured by Bent-Knee Sit-ups for 01 min. 600Yardrun/walk test and explosive Power leg was measured by standing broad jump test. Mean, Standard deviation (SD) and t - test were the statistics used in this study for data Level of significant difference between two groups was set at0.05.

2.2 Tools

Test items of AAHPER Youth Physical Fitness Test To Measured By Physical fitness component of selected subject fitness component test was used it, 1. Explosive Power, 2. Muscles power 3. Endurance, 4. Speed, 5. Agility. 6. cardiovascular endurance.

2.3 Statically Analysis

Statistical analysis of Mean + Standard Deviation (SD) and t-test were the statistics used. in this study for data Hilly and Non hilly region Significant Mean difference between two groups was set at 0.05. For Statistic calculations IBM SPSS statically of version 21 was used. Dissimilarly, statistically significant differences SIT UPS 26.9 (Hilly Region student), STANDING BROAD JUMP 75.43, (Hilly Region student) 600YARDRUN/WALK, 198.16, (Non Hilly Region student)were observed between Hilly and Non Hilly region and Minor Similarity, PULL-UPS,7.52.Hilly SHUTTLE RUN,12.15 Non Hilly, 50 YARD DASH,7.52 Hilly on components of motor fitness, The findings of statistical analysis revealed that the sit up (t = 2.58), standing broad jump(t = 2.99), shuttle run (t = 4.54), showed significant differences between the hilly and non-hilly region players, whereas pull up (t = 1.78), 50 yard dash (t = -1.60) and 600 yard run/walk (t=1.29) did not show significant difference between the selected players of both region. From the findings it was also learnt that hilly region players were significantly superior than the non-hilly region players in sit up, standing broad jump and shuttle run.

Table 1: Descriptive Statistics of Hilly and Non Hilly region on various components of motor fitness of west Bengal Physical education Student.

S. No	Component	Two Groups	Mean	Standard deviation
1	Pull Ups	Hilly	7.53	2.08
		Non-hilly	6.46	2.52
2	Sit Ups	Hilly	26.9	3.89
		Non-hilly	24.43	3.51
3	Standing Broad Jump	Hilly	75.43	4.51
		Non-hilly	71.66	5.20
4	Shuttle Run	Hilly	11.31	0.56
		Non-hilly	12.15	0.83
5	50 Yard Dash	Hilly	7.52	0.64
		Non-hilly	7.74	0.38
6	600yardrun/Walk	Hilly	191.03	15.94
		Non-hilly	198.16	25.56

Table 2: Significance of differences between mean scores of Hilly and Non Hilly regions of Physical education Student on various components of motor fitness

S. No	Component Test	Male Physical Education Student							Value
		Hilly Student		Non Hilly Student					
1	PULL UPS (No of Sit-Ups)	Mean	SD	Mean	SD	MD	Standard error of deferent of mean DM	t-value	Degree of Freedom
		7.53	2.08	6.46	2.52	1.06	0.59	1.78	
2	SIT UPS(No of Sit-Ups)								
		26.9	3.89	24.43	3.51	2.47	0.96	2.58	(58) Significant level 0.05 of Tabulated value 2.000
3	STANDING BROAD JUMP (Inch)								
		75.43	4.51	71.66	5.20	3.76	1.25	3.01	
4	SHUTTLE RUN Min. sec.								
		11.31	0.56	12.15	0.83	0.84	0.26	3.18	
5	50YARDDASH (Second)								
		7.52	0.64	7.74	0.38	0.22	7.07	0.31	
6	600YARDRUN/WALK (Second)	191.03	15.94	198.16	25.56	7.13	5.50	1.29	

The mean scores of various component of physical fitness of Physical Education Student belong to Hilly and Non hilly region in the west Bengal have been depicted in figures 1.

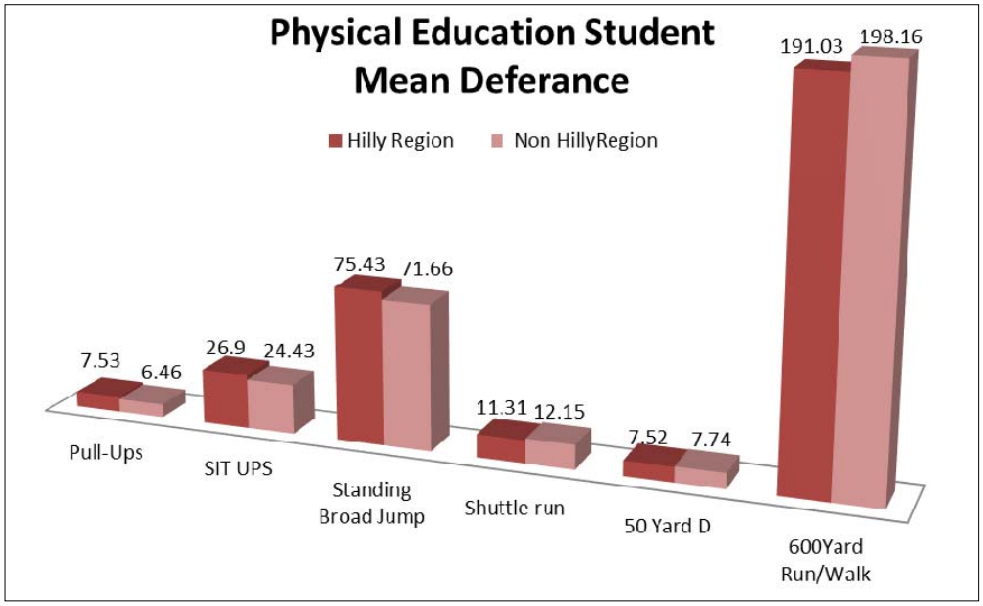

Fig 1

3. Discussion and Result

When we refer Table -02 it was reveals that computed T- value was greater than the table value and data was to find-out the means that was also significant. From the statistical analysis of the data, it was found the Physical Fitness Hilly and Non Hilly region Physical education Student were mean values approximate similar and dissimilar mean miner values. good Qualities of Both Group Hilly and Non Hilly region Physical education Student The reason that physical exercise is going to develop fitness qualities and motor Physical fitness the Continuation Practice, and they have performed more, formulated hypothesis is Statistically is accepted.

4. Conclusion

On the basis of the analysis of data the Hilly and Non Hilly region Physical education Student were having better mean values approximate similar and dissimilar mean miner values Hilly region Physical education Student Performed better than the Non Hilly region Physical education student.

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