Agility Power among Youngster Girls between Yadav and Non-Yadav Community of Parsa District

A Thesis Submitted to the Department of Physical Education in Partial Fulfillment for Master of Education in Physical Education

Submitted by

Bipin Kumar Yadav

Central Department of Education

Faculty of Education

Tribhuvan University

Kirtipur, Kathmandu

September, 2023

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September, 2023

Thesis Submitted Date: 4th Sept. 2023 **Viva Date: 10th Sept. 2023**

Declaration

I hereby, declare that to the best of my knowledge, this thesis is my original and no part of it was earlier submitted for the candidature of research degree to any University, College or Educational Institution. Whatever subject matter I have presented in this thesis report belongs to my own work except some cited texts.

Date: 1st September, 2023 …….

Bipin Kumar Yadav

Recommendation Letter

This thesis entitled **"Agility Power among Youngster Girls between Yadav and Non-Yadav Madheshi Community of Parsa District"** is an independent work of Mr. Bipin Kumar Yadav, completed under my supervision.

It has prepared for the requirement of the partial fulfillment of a Master's Degree in Physical Education. To the best of my knowledge, the study is original and carries useful information in the field of Agility Power among Youngster Girls between Yadav and Non-Yadav Madheshi Community.

Therefore, I recommend this thesis to the evaluation committee for final evaluation and viva-voce.

Date:4th September, 2023

……..

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Physical Education Department, CDED,
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Certification Page

The thesis entitled **"Agility Power among Youngster Girls between Yadav and Non-Yadav Madheshi Community of Parsa District"** was prepared and submitted by Bipin Kumar Yadav for partial fulfillment for the requirement of Master's Degree in Physical Education has been approved.

The Evaluation Committee	**Signature**
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Viva Date: 10th September 2023

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Abstract

The study entitled **"Agility Power Among Youngster Girls between Yadav and Non-Yadav Madheshi Community of Parsa District "** The main purpose of the study was to find out and compare the agility power of Yadav and Non-Yadav girl students of Parsa district. The study also aimed to analyze the present situation of agile power among them. This study was based on comparative cum analytical research design. Altogether 100 students of secondary level (11 and 12 class) were selected as respondents. Among them the number of Yadav girls students was 50 and Non-Yadav girls students was 50 only. Among two secondary schools were selected whereas, the respondents i.e. students were selected using random sampling procedure for this research work.

In this study Shuttle Run of AAHPER Fitness Test Battery was used by the researcher to find out the agility power of Yadav and Non-Yadav girls students. The test battery included one test item i.e. Shuttle Run test which measure Agility Power of an individual. For the comparison of test scores, statistical treatment such as Mean, Standard Deviation, Coefficient of Variation, Z-test were applied and calculated. The researcher found that there is significance difference in Shuttle Run test, which was concluded using Z-test among the two different respondents groups. The agility power was found better in Yadav girl students with comparison to Non-Yadav girl students. This means, the Yadav group is better in Agile aspect. Furthermore, the attraction towards police and arm force enrolment seems to push the agility power among Yadav group and they were had more involved in sporty activities than counterparts.

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Chapter 1. Introduction

Background of the Study

Physical education is an integral part of the total educational process and has its aim the development of physically, mentally, emotionally and socially fit citizens through physical activities. Which have been selected with the view to release these outcomes (Bucher, 1992, p. 9).

Physical fitness refers to the ability of a person to live a full and balanced existence. Being physically fit means having one's heart, blood vessels, lungs and muscles functioning at peak efficiency. Peak or optimum efficiency means the high level of health condition we need for taking part in daily task and recreation of enthusiasm and pleasure (Jha, 2004, as cited by Sharma, 2017, p. 2).

Physical education is an integral part of the total educational process and has its aim to develop physically, mentally, emotionally and socially fit citizens through the medium of physical and sports activities which have been selected with a view to releasing, these outcomes. Physical education is an educational process that aims the improvement of human performance and enhancement of human development through the medium of physical activities selected to realize this outcomes. In this definition, education is broadly defined as representing the ongoing process of learning and total development that occurs throughout lifespan. Physical education includes the acquisition and refinement of motor skills, the development and maintenance of fitness for optional health and well-being, the attainment of knowledge about physical activities and exercise and the development of positive attitude towards physical activities as a means to improve human performance. (Bucher, 1992, as cited by Chiluwal, 2019, p. 1).

Agility refers to the controlled ability to change position and direction rapidly and accurately. (Retrieved from Wikipedia. com).

Agility is the ability to demonstrate vigorous physical action. It includes speed, power, strength, balance, endurance and ability. A person who is physically fit has the ability to combine these traits into smooth, effective purposefully and to meet

confidently the problem and crisis which are among live expectation (Carlson, 1971 as cited by Rai, 2017, p. 1).

Physical education is that phase of the whole process of education which is concerned with vigorous muscular activities and related responses. and with the modification in the individual resultant from those response (Nixon and cozen, 2003 as cited by Bhatt, 2016, p. 4).

What does it mean to be physically fit? Physical fitness is defined "A set of attributes teat people or achieve that relates to the ability to perform physical activities" (USDHHS, 1996). In others world, it is more than being able to run a long distance or lift a lot of weight at the gym. Being fit is not defined only by what kind of activities you do, how long you do it, or at what levels of intensity. While these are important measures of fitness, they only address single areas. Overall fitness is made up effective main components: cardio respiratory endurance, muscular strength, muscular endurance, body composition and flexibility (US Department of Health Human Service, 1996 as cited by Bista 2019, p. 11).

Fitness testing has been commonly used as an assessment of young people fitness both in schools and in public health. The health related components of one's fitness cardiovascular body composition, flexibility, muscular endurance or strength are tested because their relation to health/disease outcomes in later life. It could be argued that among other factors a young person's fitness may determine how much physical activity they actually participate in. In a pediatric population Cale and Harris point out that circumstance such as biological, maturity, heredity amongst others contribute to fitness level (Cale and Harris, 2009 as cited by Shahi, 2017, p. 89).

In Many developing countries, women do no found physical facilities suitable and friendly to their gender and level. Women friendly sports refers to conductive atmosphere and appropriate facilities, easier to use for improving physical fitness and sports skills along with equipments suitable for them as per recommendation, friendly and inspiring environments. They need an encouraging peaceful easily available and useable as well as free of ragging, testing and sexually harassing environment for exercising, participating and developing sports field.

In developed educated and civilized countries, women going to gym hall, fitness and spa club, playing various game and sports competition has become a day to day activity for better health and physical fitness. People think free and take easy in such aspects and encourage women to take part in sports activities. But in developing countries there are various types of people and communities where participation of women in sports becomes the subject of hot discussion topic of social and family prestige and aspect of male domination. The traditional families, some religious group and conservative communities where awareness cannot digest and accept the outgoing women who are engaged in different types of sports activities. There are many personal, social and cultural factors which do not allow females to participate in game and sports.

In the world, sports is necessary for all men and women as equal right in all sector so today our nation emphasizes to participate the women in the field of games and sports. Our nation invested some budget but output is not satisfactory. According to game and sports statistics, Nepalese girls are more willing to participate in games and sports. But in the Madheshi girls, it is not satisfactory. So, it is still great issue for the context of Nepal. This research focuses to measure and find out agility power.

Statement of the Problem

Physical fitness is very importance for very human being to have healthy life. Physical education helps to improve our agile power which helps to develop sound and good performance.

Agility is the capacity to change course, controlling the direction and position of one's body while maintaining momentum. It is important in all ball games and combat sports. There are numerous methods to test agility and many of them were developed for specific sports.

Each games and sports were very high –speed physically fitted and mentally adequate applied game. In the school, district, Zonal, national and international be the poor foundation of agility power for games and sports. It is clear that agility power differs from each individual but the reason is yet unknown. All the students can't get equal opportunity to know their agile power. So, the researcher selected the topic

"Agility Power among Youngster Girls between Yadav and Non-Yadav Community of Parsa District.

Research Objectives

The main objective of this research is to compare agility power test between Yadav and Non-Yadav madheshi eleven and twelve girl students of Parsa district. The specific objectives are as following.

i. To identify the level of agility power of Yadav and Non-Yadav girls.
ii. To compare the agility power between Yadav and Non-Yadav girls.

Rationale of the Study

The aim of physical education is the all round development of human beings which includes the overall development of body and mind. It is impossible to fulfill the aim of education without agility power. The significances of the study were as follows:

i. This study would be helpful to other researchers and related activities for further study in the field of agility power.
ii. This study would be helpful to the trainers to develop the training program of Agility Power.
iii. This study would be helpful the planer to make Agility Power test plan for players.
iii. This study would be useful to provide the actual status of Agility Power among the Yadav and Non-Yadav girls.

Hypothesis of the Study

This research study hypothesized that there is significance difference in Shuttle Run test between Yadav and Non-Yadav girl students.

Delimitations of the Study

The delimitations of this study were as follows:

i. The study would be focused on the agility power test.

ii. Shuttle Run of AAHPER fitness test was applied.
iii. The girl students of grade 11 and 12 were involved.
iv. This respondents were taken from both Yadav and Non-Yadav community.
v. This study area was delimited to Parsa district.

Definition of the Key Terms

Physical Education: It is the process of behavior modification and psychological improvement through physical activities.

Physical fitness: Physical fitness is the capacity of individual to perform given physical task involving muscular effort.

AAHPER: The Revised AAHPER Youth Fitness Test is a battery of six test items designed to give a measure of physical fitness for boys and girls in grades 5-12. The tests were selected to evaluate specific aspects of physical status which, taken together, give an overall picture of fitness.

Agility: It is the ability to an individual to change body position and direction rapidly in a precise manner.

Speed: Speed is the distance moved per second.

Power: Power is the ability to release maximum physical force in the short period of time.

Strength: Strength is the ability to overcome the resistance or to act against the resistance. It is product of voluntary muscles contraction during the work

Flexibility: Flexibility is defined as range of movement of the joint or around the joints.

Test: A test is a specific tool of measurement and implies a response from the person being measured.

Madhesi: The Madhesi (Also madyadeshi or Maheshi) are an indigenous group based predominantly in the Terai region in Nepal. Their name means those from the middle country and is derived from the Sanskrit Madhya des.

Participation: Participation means the active involvement in all decisions relate to the objectives. The primary purpose of participation is to encourage community self-determination and this faster sustainable development. (FAO, 1990)

Games: Games are the competitive nature in which major activities involving skills, tactics, change of movements, athletes process on the part of two or more person who plays according to the set of rules e.g. Football, volleyball, cricket, basketball, kho-kho

Chapter 2. Review of Literature

Review of related literature is a very important part of thesis. It gives the essential idea for the study. Literature is needed to gain knowledge and ideas for the study to researcher. Some people have more research in this field of sports and physical education built in difficult to find related literature with own problem.

Review of Theoretical Literature

Sharma, (2017) defined that the "physical activity," "exercise," and "physical fitness" are term that describes different concepts. However, they are often confused with one another, and the terms are sometimes used interchangeably. Physical activity is defined as any bodily movement produced by skeletal muscles that result in energy expenditure. The energy expenditure can be measured in kilocalories. Physical activity in daily life can be categorized into occupational, sport, conditioning, household, or other activities. Exercise is subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or framework for comparing studies that relate physical activity, exercise, and physical fitness to health. (Corbin, 1978, as cited by Sharma, 2017, p. 7).

Bista, (2019) defined that the Physical fitness includes the elements of strength, muscular endurance, cardio respiratory endurance and flexibility .Recently, more and more physical educators are adding weight control or freedom from obesity, as a component of physical fitness. The impetus for this no doubt came from the medical profession. The many medical problems associated with obesity call for cooperative efforts between the medical fields and physical education. Although the causes of obesity are complex, lack of physical activity is a major behavior characteristics held in common by a large percentage of obsess persons. Moreover, regular physical exercise has been shown to be an effective means for reducing fat and maintaining sufficient muscles mass, physical fitness is sometimes defined in terms of the capacity to do work. In this context, obesity is definitely a negative factor and thus the avoidance of obesity qualifies as a viable component of health related physical fitness. (Johnson & Nelson, 1988, as cited by Bista, 2019, p. 16 & 17).

Review of Empirical Literature

Bucher, (1992) mentioned that many of today's activities have their predecessor in history. For example, the first recorded Olympic date to 776 BC in ancient Greece. Yoga, athletics and sports has influenced from ancient societies. Many more facts that will help physical educators to understand the present better can be gained by consulting the past. It is interesting to note the various purposes for which physical education and sports have existed in the lives of people from different societies and cultures. From ancient times to the present, either directly or indirectly, physical activities have played a part in life in human beings. Sometimes such activities have been motivated by a factor such as the necessity for learning and livelihood, wherein other instances it has resulted from the desire to lives full time. Moreover, it is clear that the motto of physical education and sports are directed towards the betterment of human beings not only physically but also socially, emotionally, psychologically and spiritually as well.

Sedai, (2005) studied about "A study of attitude towards physical education of studying in bachelor degree." His main purpose was to find out the student's attitude towards physical education . The researcher was applying readymade tools from Admes scale in this study collected the data. It was concluded that whole respondents had positive attitude towards the physical education.

Khanal, (2005) studied about "Parental influence on sports participation of their daughter." The objectives of this study were to find out the parental reaction towards sports participation of their daughter, to compare the reaction between the parents of sports participant's girls and non-participant girls, to find out the sports girls reaction on sports participation. This research descriptive type and the population of this study were all girls were studying in class 10 and their parents. The researcher had used purposive sampling method. For this study used Bhullar J. readymade tool. It was concluded that parent's attitude towards their daughter and son's participation was similar.

Gurung, (2006) conducted a researcher on "Comparative study on physical fitness of indigenous and non indigenous youth in Gorkha district." The objective of this study was to find out the physical fitness o indigenous and non- indigenous

youths. The researcher applied the purposive can census method. In this study, the main source of data collection wares all high school level indigenous and non indigenous boy's student of Gorkha district. In the conclusion, the composite mean of indigenous youths was slightly non–indigenous better than youths. When compared each factor separately the indigenous youth was found significantly better in arms 'strength and legs' power than the non – indigenous youth, Non –indigenous youth was found better in speed, but in other 5 components, indigenous youth was found better than the non-indigenous youths.

Bastola, (2007) entitled a research "A comparative study of physical fitness between HPE and non–HPE students of PCL level of Kathmandu valley". The purpose of the study was to measure and compare the physical fitness of HPE and non HPE student of PCL level. The population of the study was the HPE and non HPE student of PCL level from different government and private campuses of Kathmandu valley. The researcher used purposive cum random sampling method and AAHPER physical fitness test battery was used as the researcher tool to collect the required data. No significant difference was found in sit ups, standing board jump, shuttle run and 50-yard dash but in pull ups and 600 yard run, there was significant difference in physical fitness between HPE and non HPE students. So, the research concluded that HPE students have better physical fitness than non-HPE students.

Chaudhari, (2009) as cited by Mudvari (2017) conduct a research on "Comparison of motor fitness between the Tharu and Yadav student of Birgunj sub-metropolitan city." The objectives of this study were to measrue the motor fitness of the boys of Tharu students in +2 level of Birgunj Sub-metropolitan city. To measure the motor fitness of the boys of Yadav in +2 level Birgunj Sub-metropolitan city and compare between the boys of the Tharu and thr boys of Birgunj Sub-metropolitan city. The researcher applied the purposive sampling method. In this study, the main sources of data collection were all college of HPE subject student of Birgunj Sub-Metropolitan City. In conclusion of this study, in chin–up, Straddle chin ups and vertical jump tests were the Tharu students perform better than Yadav students. The Yadav students were better than Tharu student in standing board jump.

Acharya, (2009) studied on this study comparison of physical fitness status of Arghakhanchi and Kapilvastu districts higher secondary school student. The main

purpose of the study was to find out the physical fitness status of higher secondary school students. The main sources of the data and study population were the student of Arghakhanchi and Kapilvastu district's higher secondary school 20/20 student from Kapilvastu and Arghakhanchi district by using Random sampling method. The researcher found the significant difference between Arghakhanchi and Kapilvastu higher secondary school. He applied readymade AAHPER youth fitness test Batteries. It was concluded that the physical fitness of the Arghakhanchi higher secondary school student was significantly high performance then Kapilvastu higher secondary school students.

Shrestha, (2011) studied on " A study of attitude towards physical education among the girls volleyball player of Kirtipur municipality." The main objective of this study was to find out the attitude towards physical education among the girls volleyball player. The populations of this study were all the secondary level school students. In this study the purposive and random sampling method were used. Car attitude scale was the main tool for this study. This study had formed most of the respondents agree with the positive effect of physical education.

Shrestha, (2012) conducted a research on "Comparison physical fitness between the girls students of public and private secondary school in Dhading district". The main purpose was to measure and compare the physical fitness of girl students of public and private secondary school. The research had used purposive cum random sampling method; the researcher used comparative cum analysis design. Youth physical fitness test was used as the research tools to data collect the required data. The research concluded that the level of physical fitness of public and private school girl student were comparatively better then private school girls in Dhading district.

Basnet, (2013) conduct "Comparative study of physical fitness between Sherpa and Chhetri boy students of secondary school in Solukhumbu district" The main purpose of the study was find out and compare the physical fitness between Sherpa and Chhetri student. The researcher had used descriptive and analytical design. The researcher had used main tools of data collection readymade test battery of AAHPER Physical fitness test. He concluded the physical fitness of Sherpa student was comparatively better then Chhetri students in this study.

Bhat, (2013) conducted a research on the title "The attitude of girl students towards the participation in sports in Dadeldhura district." The general objective of this study was to identify the attitude of girl students toward sports activities. This study was descriptive type. The population of study was bachelor level girl students. In this study was purposive sampling method used. Carr and Adams attitude scale was the main tools for this study. In this study had showed, they were quietly positive towards sports and physical activities.

Sharma, (2014) conducted a research on "Physical fitness level among the secondary school's boy student high attitude and low attitude in Solukhumbu district. The main objective of the study was found out the physical fitness level of secondary boy school students. Quantitative research design was applied in this study. in this study, the main source of data were the higher secondary level Magarand Chhetri boys' student of Baglung district, in conclusion was found slightly better than Magar student. After viewing the average pass score it can be concluded that the level of physical fitness of Chhetri and Magar higher secondary level student was not found good.

Maharjan, (1985) as cited by K.C. (2016) concluded with significant differece among the performance of boarding school general public school students of Kathmandu district. He also found students of boarding school showed better performance on motor performance. He selected 200 subjects randomly for the study from boarding and general school of Kathmandu District. He applied JCR motor fitness test including vertical jump, chin-up and shuttle run.

Joshi, (2016) concluded a research on "A comparison of physical fitness of status of girls students between institutional and community higher secondary school in Lalitpur district. The main objective was to find out the physical fitness status of girls students in institutional and community higher secondary level of Lalitpur district. Descriptive comparative research design was applied in this study. In this study, the main sources of the data were the girl's student of secondary level of Lalitpur district. In conclusion the above stated result prove that significance different was not found between the physical fitness of community school's girl student in this study area of Lalitpur district.

Neupane, (2016) conducted a study entitled "Status and role of district sports development committee for the development of sports in dang district." The objectives of this study were to find out the role of the District Sports Development Committee for the development of sports activities of District Sports Development Committee. This study was based on descriptive cum quantitative nature, the researcher had used both primary and secondary data. He had found that DSDC has no long term plan for the development of sports.

Ikeda, (1962) as cited by Rai (2017) Japanese Scholar compared the physical fitness of children in Lowa and within the age of nine to ten using the test battery having test items like sit-up, standing board-jump etc. He found that in spite of the Lowa children behavior, taller and longer legs, the Tokyo children scored better in all performance tests except in sit-up. A comparison of the physical education program in these school was also made which showed that the Tokyo children has more chances for developing physical activities then of the Lowa group.

Rai, (2017) conducted the research work on "Comparison of physical fitness between basketball and karate players of APF club." The objectives of t find out the status of physical fitness of basketball players of APF club, to compare the physical fitness of basketball and karate players of APF club. The researcher had used descriptive and comparative design researcher main tools of data collections readymade test battery of AAHPER Physical fitness test. It was concluded that the Basketball players have more physically fit.

Timilsina, (2019) concluded a research on "Physical fitness among ethnic and non-ethnic girl students of Gorkha district." The main objective was to compare the physical fitness among ethnic and non-ethnic students. Comparative cum analytical research design was applied in this study. In conclusion the above stated results prove that significance difference was found between the physical fitness of ethnic and non-ethnic students.

Chiluwal, (2019) concluded a research on "Comparative study on physical fitness between indigenous and non- indigenous students in Lanjung district." The main objective was to compare the physical fitness between indigenous and non-indigenous students. Comparative cum analytical research design was applied in this

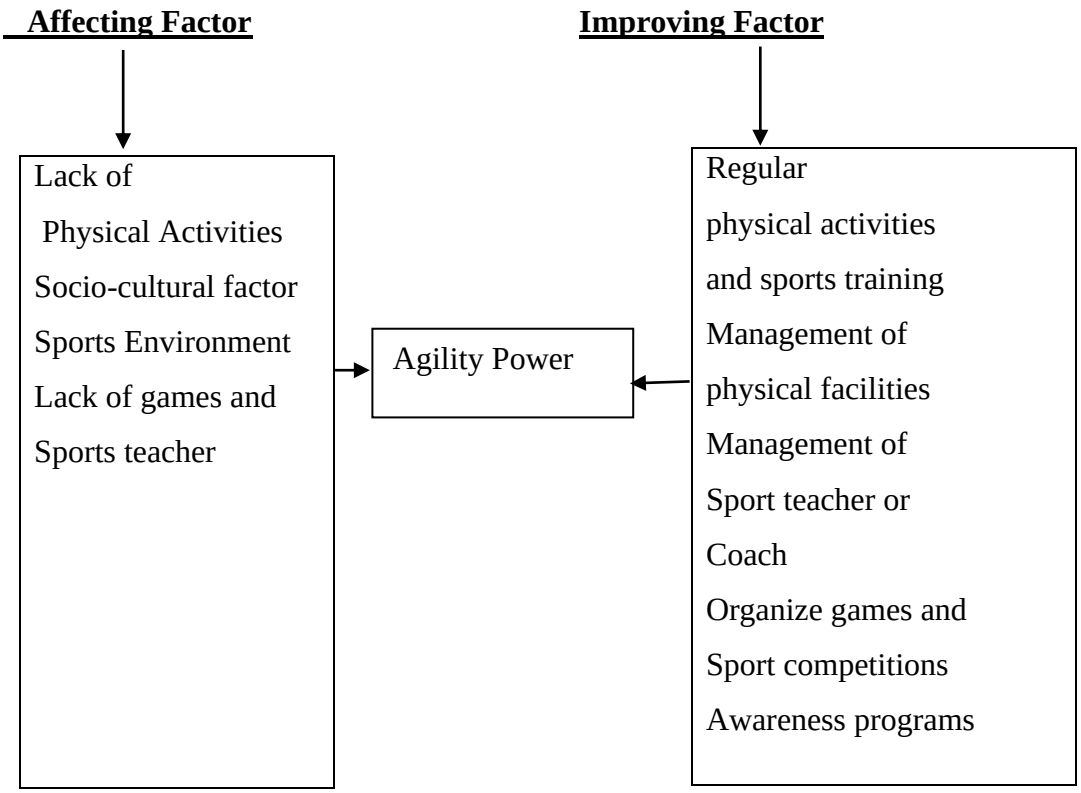
study. In conclusion the above stated results prove that significance difference was found between the physical fitness of indigenous and non-indigenous students.

Implication of the Review for the Research

The reviews of related literature implication and helped to design the chapters as well as methodology of this study. The reviews literatures were also helped research tool, sample population and deciding the number of respondents from selected events. The researcher follow other necessary report, newspaper, books journals, website etc.

Conceptual Framework

The conceptual framework is the developed by the theoretical framework so that it is the one part of the theoretical framework. This framework shows the relationship between factors, dependent variable and independent variable reference to agility power of 11 and 12 class from Yadav and Non-Yadav girl students.



Above, the pictorial shows that effecting factors and improving factors of agility power, the variables are related to the study about comparison of agility between girl

students of Yadav and Non-Yadav in Parsa district. Regular physical activities, physical facilities, management of sports teacher, sports competitions and awareness programs are the causative variables of agile test. These causative variables effect on agility power performance.

In 21st century men and women have equal rights in all sectors. According to histories record game and sports proved that women are also able to play different types of games and sports activities. They can do, what men can do. So now days, Nepalese girls are increased to participate in games and sports. But participation of Madheshi girls in games and sports are poor as compared to other Nepalese community girls. Madheshi girls have to face various barriers to participate in games and sports but also, they have participated in games and sports. Madheshi girls will participate freely as other Nepalese girls if such types of barriers are removed from the societies and they can break various past records created in games and sports.

Chapter 3. Research Methodology

This research was conducted on agility power test between Yadav and Non-Yadav girl students of secondary level (11 and 12 class) in Parsa district. This chapter describes the research design, sources of data, delimitation of the study, sampling procedure, sample size, data collection tools, validation of tools, data collection technique and analysis and interpretation of data which are as follows:

Research Design

This study was based on comparative cum analytical research design. The data was compared between Yadav and Non-Yadav girl students of 11 and 12 class of Parsa district. This was used to find out the agile power existing situation of Yadav and Non-Yadav girl students.

Sources of Data

This study was based on primary data obtained from the selected respondents. The primary data was taken from Yadav and Non-Yadav Madheshi girls of Parsa district.

Sampling Procedure and Sample Size

The researcher would be applied random sampling method for this research work. The researcher was select 50 respondents from Yadav girls and Non-Yadav 50 girls. Altogether, there were all together 100 respondents for this research purpose.

Table 1

Sample Population, Sampling Procedure and Sample Size

S.N.	Name of the School	Total population				Sample size				Sampling Technique
		Yadav		Non-Yadav		Yadav		Non-Yadav		
		11	12	11	12	11	12	11	12	
1	H. K. M. C.	19	20	21	17	12	13	12	13	
2	N R S. S.	21	25	16	26	12	13	12	13	
	Da.P.									Random sampling
	Total	40	45	37	43	24	26	24	26	method

Data Collection Tools

For data collection purpose, an AAHPER Physical fitness test battery was used in this study. The test battery included. (Jha. A. K. 2010, p. 192).

(1) Shuttle Run

Description of Test Items

(a) Shuttle Run

Objective: these items to measure the test of agility power of body.

Reliability: 0.88

Equipments: Two wooden blocks, 2 inches x 2 inches x 4 inches, stopwatch, marking tape and play ground or field

Description: Two parallel lines will marks on floor 30ft. Blokes of two wood behind one of the line as indicated in the figure 1.The subject will started from behind the other line. On the signal "ready and whistle", the subject runs to the blocks, pick up one block and turn back to the starting line and place the block behind the line, he then run back again and pick the second block, which he carried back across the starting line. Researcher will use the split second timer stopwatch so four subject will allowed to run at time. Three finish judges; one records and one starter will there for the better judgment.

Rule: Allow two trails with some rest in between.

Scoring: Better time of the two trials will recorded in the nearest attempt of a second.

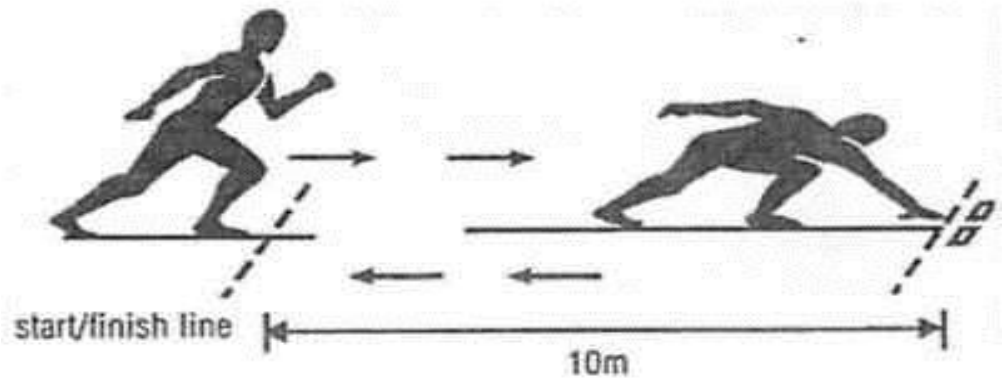


Figure 1
Shuttle Run

Data Collection Procedures

In the process of data collection, the researcher visited the selected school with the recommendation letter from the department of physical education. The researcher requested the principal to provide time and manage respondents. The researcher describes the purpose of the research and requested to the respondents to provide time for test. The researcher managed the whistle, stopwatch, score-sheet etc. The researcher informed the respondents to administer the test. After preparing procedure the researcher conducted the test and recorded the score of all selected girl students. While conducting tool, at first the researcher demonstrated the test item among the selected respondents. After that administer test by the help of assistant scorer. The researcher checked, corrected, demonstrated shuttle run. The assistant scorer recorded the score of the respondents on the notebook systematically.

Validation / Standardization

The tool was already valid by AAHPER in 1960. So, the researcher did not conduct any trail test to the validation of this test item.

Data Analysis

There are many scientific methods in research for analysis and interpretation of data. It is the backbone of the research because it shows the findings and analysis of all the item of respondents. Without analysis, raw data doesn't give any meaning itself. After collecting the required data, the researcher used manual method for analysis and interpretation of data. The collected raw data was tabulated, analysis and interpreted as per the objective of the study. Some statistical measures and methods such a Mean, Standard Deviation, Coefficient of Variation, Z- test and T-score etc. were applied to analyze and interpret the data.

Ethical Considerations

The study was based on contributions of the agility power among youngster girls between Yadav and Non-Yadav community of Parsa district. The respondents were assured of their privacy and no harm through this study. Respondents weren't forced to participator the respondent's name and other personal things were kept at top confidential in this research and collected data weren't used in any other area and field.

Chapter 4. Results and Discussion

In this chapter, all the information collected from the field were tabulated, analyzed and interpreted as per the objective of the study. The researcher collected using one test item of AAHPER Youth Physical Fitness test battery. The data were used to compare the Agility Power between Yadav and Non-Yadav girl students. By using Z-test, the researcher had tried to find the differences between the Agility Power of selected group of students in this chapter.

Comparison of Shuttle Run Score of Yadav girl Students between HKM Campus and NRS School

The researcher applied only one test item recommended in AAHPER Youth Physical Fitness test. By using the collected data, the researcher compared the agility power of the students of Yadav and Non-Yadav girl students. The Shuttle Run was comparison is done hereby.

Table 2

Comparison of Shuttle Run Score of Yadav Girl Students between HKM Campus and NRS School

Statistical Treatment	**HKM Campus**	**NRS School**
Mean	13.77	13.88
Standard Deviation	2.2	1.01
Coefficient of Variation	15.79	7.27
Calculated Z-value	0.22	
Tabulated Z- value at .05 level	1.96	
Conclusion	Not Significant difference	

The above table shows that the mean score of HKM Campus girl students is 13.77 seconds and the mean score of NRS School girl students is 13.88 seconds on shuttle run test which means that HKM Campus girl students were more agile than NRS School girl students. But the difference in mean scores cannot show the difference between the agility power of HKM Campus and NRS School girl students. The standard deviation and coefficient of variance in data was higher among HKM Campus girl students in Shuttle Run test. So, the researcher applied Z-test to have been seen that there is no significant difference between the means of HKM Campus

and NRS School girl students. The calculated Z-value was 0.22 and the tabulated Z-value was 1.96 at .05 level of significance. Calculated Z-value is greater than the tabulated Z-value at .05 level of significance.

So, the researcher concluded that there is no significance difference between the means of two group i.e. HKM Campus girl students Agility Power is better that NRS School girl students being based on Shuttle Run test. The performance of HKM Campus girl students was found better Shuttle Run test. Furthermore, the HKM Campus girl students have more facilitated for sports environment than counterparts.

Comparison of Shuttle Run Score of Non- Yadav girl Students between HKM Campus and NRS School

Table 3

Comparison of Shuttle Run Score of Non-Yadav Girl Students between HKM Campus and NRS School

Statistical Treatment	**HKM Campus**	**NRS School**
Mean	14.06	14.71
Standard Deviation	1.13	1.47
Coefficient of Variation	8.05	9.99
Calculated Z-value	1.75	
Tabulated Z- value at .05 level	1.96	
Conclusion	Not Significant difference	

The above table shows that the mean score of HKM Campus girl students is 14.06 seconds and the mean score of NRS School girl students is 14.71 seconds on shuttle run test which means that HKM Campus girl students were more agile than NRS School girl students. But the difference in mean scores cannot show the difference between the agility power of HKM Campus and NRS School girl students. The standard deviation and coefficient of variance in data was higher among NRS school girl students in Shuttle Run test. So, the researcher applied Z-test to have been seen that there is no significant difference between the means of HKM Campus and NRS School girl students. The calculated Z-value was 1.75 and the tabulated Z-value was 1.96 at .05 level of significance. Calculated Z-value is greater than the tabulated Z-value at .05 level of significance.

So, the researcher concluded that there is no significance difference between the means of two group i.e. HKM Campus girl students Agility Power is better that NRS School girl students being based on Shuttle Run test. The performance of HKM Campus girl students was found better Shuttle Run test. Furthermore, the HKM Campus girl students have more participate in games and sports at campus.

Comparison of Agility Power test between Yadav and Non-Yadav Girl Students.

By administrating test of Shuttle Run on Yadav and Non-Yadav girl students, the researcher found the result as following:

Table 4

Comparison of Shuttle Run between Yadav and Non-Yadav Girl Students

Statistical Treatment	**Yadav**	**Non-Yadav**
Mean	13.82	14.38
Standard Deviation	1.00	1.31
Coefficient of Variation	7.27	9.12
Calculated Z-value	2.40	
Tabulated Z- value at .05 level	1.96	
Conclusion	Significant difference	

The above table shows that the mean score of Yadav girl students is 13.82 seconds and the mean score of Non-Yadav girl students is 14.38 seconds on shuttle run test which means that Yadav girl students are more agile than Non-Yadav girl students. But the difference in mean scores only cannot show the difference between the ability of Yadav and Non-Yadav girl students. The standard deviation in data was higher among Non-Yadav girl students in Shuttle Run test. So, the researcher applied Z-test to see the significant difference between the means of Yadav and Non-Yadav girl students. The calculated Z-value was 2.40 and the tabulated Z-value was 1.96 at .05 level of significance. Calculated Z-value is greater than the tabulated Z-value at .05 level of significance.

So, the researcher concluded that there is significance difference between the means of two groups i.e. Yadav girl students Agility Power is better that Non-Yadav girl students being based on Shuttle Run test. The performance of Yadav girl students was found better Shuttle Run test. The involvement in daily domestic activities like

farming in agricultural sector, lifting, walking and more involved in sporty activities among Yadav girls students might be the reason for better agile status. Furthermore, the attraction towards police and arms force enrolment seems to push the agility power among Yadav girl students.

Testing of Hypothesis

Previously it was hypothesized that there is significance difference in Yadav and Non-Yadav girl students from data analysis, interpretation and finding of the study. It was found that the mean score of significance difference between Yadav and Non-Yadav girl students in Shuttle Run test. While applying Z-test between the two groups at 0.05 level of significance, Yadav girl students had better performance than Non-Yadav girl students on Shuttle Run test. Thus, on the above ground previously stated hypothesis can be accepted.

Key Findings

From this research, the findings were determined on the basis of actual test. Findings were made after the statistical analysis of obtained data from the respective respondents selected for the study. Some major findings of the research are listed below:

(i) The researcher found significant difference at.05 significance level between the means of Yadav and Non-Yadav girl students on shuttle run test while applying Z-test. The mean score of Yadav girl students was 13.83 seconds and Non-Yadav girl students were 14.38 seconds. So, mean score of Yadav girl students is less than non-Yadav girl students, which indicate that Yadav girl students are more agile than Non-Yadav girl students regarding this test.

(ii) It was found from the study that there is significant difference between Yadav and Non-Yadav girl students in Shuttle Run test because the tabulated Z-value (1.96) is less than calculated Z-value (2.40).

Discussion

Agility is that an ability of the body to change direction quickly. The main objective of this study was compared the agility among girl students between Yadav and Non-Yadav girls students. Also, it was hypothesized that students of Yadav girl students are better on components of agility test than the students of Non-Yadav girl students.

In this research, the researcher is intended to measure the agility test of Yadav and Non-Yadav students of Parsa district. There two respondent group live on same region but they have different way of living, types of field of working involved and lifestyle. The objective of the research to measure and compare the agility test of Yadav and Non- Yadav girl students of Parsa district and also to analyze it present status of agility test.

The research based on descriptive with quantitative research design. It was applied convenient cum purposive sampling method. The sources of data were taken from Hari Khetan Multipl Campus and Shree Nepal Rastriya Secondary School Da.P. from Parsa district. Eleven and twelve class student were taken for sample whereas 50 students were taken from each school. Altogether, there were 100 girl students as for the respondents. Thus sample size was designated within 100 respondents. The numbers of student were delectated random sampling method. The data obtained was analyzed with reference to the objective by using statistical tools such as, mean, standard deviation, coefficient of variance and z-test. The components of physical fitness was used i.e. shuttle run was applied to measure the agility power.

This means there is significance differences in agility power between girl students. Moreover the load and intensity in sporting activities, as well as supportive factors in exercise, physical work, parental support, campus environment, social environment, social thought, sports opportunity and sports perspective were seen identical in Yadav girl students. Furthermore, the attraction towards police and arms force enrolment seems to push the agility power of Yadav girl respondents have involved in games and sports activities than Non-Yadav girl students.

Chapter 5. Conclusions and Implications

Conclusions

This research title was "Agility Power among Yongster Girls between Yadav and Non-Yadav Community of Parsa District." The main objetives of this study were to identify the level of agility power and comparing the Agility Power among girl students between Yadav and Non-Yadav girls. The Shuttle Run of AAHPER youth fitness test was applied to measure the agility power. The study was based on comparative cum analytical research design was used for this research work. Simple random sampling method was applied for sampling procedure. Altogether 100 girl students of 11 and 12 class were taken as the respondent of this study whereas 50 students were taken from each campus or school. The primary data obtained from Yadav and Non-Yadav girls students

The researcher was calculated the standard scores from the test items. For the purpose of test items of Agility Power whether, the researcher found that, there is significant difference in Agility Power between the Yadav and Non-Yadav girls of two respondent groups. The mean score for Yadav girl students was 13.83 seconds and Non-Yadav girl students were 14.38 seconds. So, mean score of Yadav girl students is less than Non-Yadav girl students. The tabulated Z-value 1.96 is less than calculated Z-value is 2.40. The statically measure was indicated that the Yadav girls score was found greater than Non-Yadav girls. The Z-test score was applied as statistical test at 0.05 significance level. Furthermore, the Yadav girls have more involved in physical works e.g. physical working, walking, sporting activities and the attraction towards police and arms force enrolment seems to push the agility power. The Agility powers regarding various sports programs e.g. regular exercise, physical work, sports participate programmed should be launched in Nepal to develop the Agility Power of people. The Agility Power research should be conducted to develop the fitness norm of this nation.

Implications

A physical activity is most essential subject to our health of an individual. It helps the physical, mental social and emotional aspect of an individual. The nation should create the fitness unified policy, motivated towards sporting activities and

more participating people throughout this fitness related research. The policy should made regarding various educational programs, awareness programs and further research areas for further development girl students attitude towards physical exercise and sporting activities.

Policy Related Implications

(i) Physical education should be taught in school to improve the agility fitness status.
(ii) The curriculum development centre of Nepal should suggest including games and sports as a compulsory subject from primary to higher level education.
(iii) The nation, campus management committees and teachers can make the policies to involve their girl students in sports based physical activities.
(iv) The district sport development committee/ municipality is suggested to support to organize inter-school and intra-school games and sports competition to enhance physical fitness: agility, speed, flexibility, endurance, strength, balance, power, coordination, reaction time etc.

Improvement Related Implications

(i) The arrangement and availability of physical facilities should be provided to inclusive among all students.
(ii) The motivating factors should be encouraged to the students to enhance the physical fitness status.
(iii) Regular training and coaching programs should be provided to the girl students.
(iv) All the students should be encouraged to participate in different games and sports.

Further Areas of Research Implications

The base on this study the researcher recommends the following points for further areas of research:

(i) Further researcher can be conducted the physical fitness research in any title e. g. endurance, flexibility, reaction time etc.

(ii) The researcher can take large area, more number of respondents and a different cast and religion to find out the agility status of other areas.

(iv) A comparative study can be undertaken on the subject of physical education among girl students between other groups. .

(iv) Researcher can conducted the experimental study i.e. impact of exercise in physical fitness between control and experimental groups.

(v) Comparative study in any title of sports and physical education can be conducted between two groups e.g. regional, provincial and national level.

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"Appendix A,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Yadav Girl Students of HKM Campus in Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	14.32	0.25
2	12.27	2.4025
3	13.35	0.2209
4	12.95	0.7569
5	13.03	0.6241
6	15.10	1.6384
7	13.55	0.0729
8	15.49	2.7889
9	14.79	0.9409
10	13.40	0.1764
11	15.09	1.6129
12	12.88	0.8836
13	16.02	4.84
14	12.89	0.8649
15	12.92	0.81
16	13.30	0.2704
17	13.53	0.0841
18	13.26	0.0036
19	14.09	0.0729
20	12.56	1.5876
21	13.87	0.0025
22	14.48	0.4356
23	13.55	0.0729
24	13.48	0.1156
25	14.09	0.0729
Total	**344.26**	**21.6014**
Average	**13.77**	

$$Mean\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{344.26}{25} = 13.77$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{21.6014}{25}} = 2.2$$

$$\text{C. V.} = \frac{\sigma}{\bar{x}} \text{ x } 100\% = \frac{2.2}{13.77} \text{ x } 100\% = 15.97$$

"Appendix B,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Yadav Girl Students of NRS School in Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	13.10	0.5184
2	15.21	1.9321
3	14.44	0.3844
4	15.66	3.3856
5	13.08	0.5476
6	14.72	0.81
7	15.28	2.1316
8	13.18	0.4196
9	15.42	2.56
10	14.88	1.1236
11	12.98	0.7056
12	12.88	1.0404
13	14.00	0.0324
14	14.98	1.3456
15	13.26	0.3136
16	14.39	0.3249
17	12.06	3.0976
18	13.01	0.6561
19	12.15	2.7889
20	14.18	0.1296
21	13.32	0.25
22	12.42	1.96
23	13.06	0.5776
24	14.33	0.2601
25	15.09	1.6129
Total	**347.08**	**25.5226**
Average	**13.88**	

$$\text{Mean}\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{347.08}{25} = 13.88$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{25.5226}{25}} = 1.01$$

$$\text{C. V.} = \frac{\sigma}{\bar{X}} \text{ x } 100\% = \frac{1.01}{13.88} \text{ x } 100\% = 7.27$$

"Appendix C,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Non-Yadav Girl Students of HKM Campus in Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	12.72	-2.7556
2	13.70	-0.4624
3	14.13	-0.0625
4	13.14	-1.5376
5	13.89	-0.2401
6	14.25	-0.0169
7	13.87	--0.1849
8	14.29	-0.0081
9	14.76	0.1444
10	13.63	-0.5625
11	14.24	-0.0196
12	13.95	-0.2304
13	12.44	-3.7636
14	15.17	0.6241
15	13.35	-1.0609
16	14.90	0.2704
17	13.88	-0.25
18	14.63	0.0625
19	16.52	4.5796
20	11.65	-7.4529
21	15.25	0.7569
22	16.45	4.2849
23	12.85	-2.3409
24	13.77	-0.3721
25	14.31	-0.0049
Total	**351.74**	**32.0487**
Average	**14.06**	

$$Mean\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{351.74}{25} = 14.06$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{32.0487}{25}} = 1.13$$

$$\text{C. V.} = \frac{\sigma}{\bar{X}} \text{ X } 100\% = \frac{1.13}{14.06} \text{ x } 100\% = 8.05$$

"Appendix D,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Non-Yadav Girl Students of NRS School in Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	12.65	-2.9929
2	15.75	1.8769
3	14.89	0.2601
4	16.18	3.24
5	15.90	2.3104
6	14.77	0.1521
7	13.00	-1.9044
8	14.90	0.2704
9	17.10	7.3984
10	16.29	3.6481
11	14.85	0.2209
12	14.66	0.224
13	16.00	2.6244
14	15.45	1.1449
15	16.63	5.0625
16	14.86	0.2304
17	12.09	-2.1904
18	11.26	-9.7344
19	13.08	-1.69
20	15.19	0.6561
21	13.55	-0.6889
22	12.97	-1.9881
23	14.73	0.1225
24	15.07	0.4761
25	16.10	2.9584
Total	**367.92**	**54.0657**
Average	**14.71**	

$$\text{Mean}\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{367.92}{25} = 14.71$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{54.0657}{25}} = 1.47$$

$$\text{C. V.} = \frac{\sigma}{\bar{X}} \text{ X } 100\% = \frac{1.47}{14.71} \text{ x } 100\% = 9.99$$

"Appendix E,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Yadav Girl Students of Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$	S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	14.32	0.25	28	14.44	0.3844
2	12.27	2.4025	29	15.66	3.3856
3	13.35	0.2209	30	13.08	0.5476
4	12.95	0.7569	31	14.72	0.81
5	13.03	0.6241	32	15.28	2.1316
6	15.10	1.6384	33	13.18	0.4196
7	13.55	0.0729	34	15.42	2.56
8	15.49	2.7889	35	14.88	1.1236
9	14.79	0.9409	36	12.98	0.7056
10	13.40	0.1764	37	12.88	1.0404
11	15.09	1.6129	38	14.00	0.0324
12	12.88	0.8836	39	14.98	1.3456
13	16.02	4.84	40	13.26	0.3136
14	12.89	0.8649	41	14.39	0.3249
15	12.92	0.81	42	12.06	3.0976
16	13.30	0.2704	43	13.01	0.6561
17	13.53	0.0841	44	12.15	2.7889
18	13.26	0.0036	45	14.18	0.1296
19	14.09	0.0729	46	13.32	0.25
20	12.56	1.5876	47	12.42	1.96
21	13.87	0.0025	48	13.06	0.5776
22	14.48	0.4356	49	14.33	0.2601
23	13.55	0.0729	50	15.09	1.6129
24	13.48	0.1156	**Total**	**691.26**	50.4996
25	14.09	0.0729	**Average**	**13.82**	
26	13.10	0.5184			
27	15.21	1.9321			

$$Mean\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{691.26}{50} = 13.82$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{50.4996}{50}} = 1.00 \text{ C.}$$

$$\text{V.} = \frac{\sigma}{\bar{x}} \text{ x } 100\% = \frac{1.0049}{13.82} \text{ x } 100\% = 7.27$$

"Appendix F,"

Calculation of Mean, Standard Deviation and Coefficient of Variation of Non-Yadav Girl Students of Shuttle Run Test

S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$	S.N.	Raw Score(X)	$X^2=(X-\bar{X})^2$
1	12.72	-2.7556	28	14.89	0.2601
2	13.70	-0.4624	29	16.18	3.24
3	14.13	-0.0625	30	15.90	2.3104
4	13.14	-1.5376	31	14.77	0.1521
5	13.89	-0.2401	32	13.00	-1.9044
6	14.25	-0.0169	33	14.90	0.2704
7	13.87	--0.1849	34	17.10	7.3984
8	14.29	-0.0081	35	16.29	3.6481
9	14.76	0.1444	36	14.85	0.2209
10	13.63	-0.5625	37	14.66	0.224
11	14.24	-0.0196	38	16.00	2.6244
12	13.95	-0.2304	39	15.45	1.1449
13	12.44	-3.7636	40	16.63	5.0625
14	15.17	0.6241	41	14.86	0.2304
15	13.35	-1.0609	42	12.09	-2.1904
16	14.90	0.2704	43	11.26	-9.7344
17	13.88	-0.25	44	13.08	-1.69
18	14.63	0.0625	45	15.19	0.6561
19	16.52	4.5796	46	13.55	-0.6889
20	11.65	-7.4529	47	12.97	-1.9881
21	15.25	0.7569	48	14.73	0.1225
22	16.45	4.2849	49	15.07	0.4761
23	12.85	-2.3409	50	16.10	2.9584
24	13.77	-0.3721	**Total**	**719.32**	86.1144
25	14.31	-0.0049	**Average**	**14.38**	
26	12.65	-2.9929			
27	15.75	1.8769			

$$Mean\left(\bar{X}\right) = \frac{\sum X}{N} = \frac{719.32}{50} = 14.38$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}} = \sqrt{\frac{86.1144}{50}} = 1.31$$

$$\text{C. V.} = \frac{\sigma}{X} \text{ X } 100\% = \frac{1.3123}{14.38} \text{ x } 100\% = 9.12$$

"Appendix G,"

Shuttle Run Test

Calculation of Z-test Between Yadav Girls Students HKM Campus and NRS School

$$Z-test=\frac{\bar{X}_1-\bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1}+\frac{\sigma_2^2}{N_2}}}=\frac{13.88-13.77}{\sqrt{\frac{(1.01)^2}{25}+\frac{(2.2)^2}{25}}}=\frac{0.11}{\sqrt{\frac{1.0201}{25}+\frac{4.84}{25}}}=0.22$$

Calculation of Z-test Between Non- Yadav Girls Students HKM Campus and NRS School

$$Z-test=\frac{\bar{X}_1-\bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1}+\frac{\sigma_2^2}{N_2}}}=\frac{14.71-14.06}{\sqrt{\frac{(1.47)^2}{25}+\frac{(1.13)^2}{25}}}=\frac{0.56}{\sqrt{\frac{2.1609}{25}+\frac{1.27169}{25}}}=1.75$$

Calculation of Z-test Between Yadav and Non-Yadav Girls Students HKM Campus and NRS School

$$Z-test=\frac{\bar{X}_1-\bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1}+\frac{\sigma_2^2}{N_2}}}=\frac{14.38-14.82}{\sqrt{\frac{(1)^2}{50}+\frac{(1.31)^2}{50}}}=\frac{0.56}{\sqrt{\frac{1}{50}+\frac{1.7162}{50}}}=2.4$$

"Appendix H,"

Formulae for Different Calculations

$$Mean\left(\bar{X}\right) = \frac{\sum X}{N}$$

$$SD(\sigma) = \sqrt{\frac{\sum x^2}{N}}$$

C. V. = $\frac{\sigma}{\bar{X}}$ x 100%

$$Z - test = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}$$

Z-Score = $\frac{X - \bar{X}}{\sigma}$

T-Score = 50+10Z (Number Based Event)

T-Score =50-10Z (Time Based Event)

Where,

X= Raw score

$\bar{X}_1$= Mean of first Group

$\bar{X}_2$= Mean of Second Group

σ_1= Standard Deviation of first Group

σ_2= Standard Deviation of Second Group

N_1= Sample size of first Group

N_2= Sample size of Second Group

C.V. = Coefficient of Variation