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Comparison of Anthropometric Measurements among the Students of Education and Physical Education

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Abstract – The world of sports is growing with the force of competition and enlarging scientific studies of human movement. Nature of sports is dynamic and for load it is progressive. It's limited to "what has been", but it's goal is to fix new targets. The field of Sports and Physical Education are international disciplines because they expand international understanding and worldwide brotherhood in present politically conflicting lives. Sport movements are considered as one of the major adhesive forces for developing world peace. The objectives of the study were to study and compare the Anthropometric Measurement among the students of Education and Physical Education in Western Uttar Pradesh. The study was delimited to the 600 undergraduate students of Western Uttar Pradesh and Further, delimited to anthropometric measurement variables i.e. Standing Height, Sitting Height, Leg Length, Arm Length and Body Weight. Before setting the hypothesis the research scholar undergone the related studies in the area of particular subject and consulted experts in this regards. On the basis of their advice & suggestions and the experience of the research scholar it was hypothesized that: There will be a significant difference in Anthropometric variables i.e. Standing Height, Arm Length, Leg Length, Sitting Height and Body Weight among the students of Education and Physical Education. The total numbers of 600 subjects (300 from Education and 300 from Physical Education).were selected from 10 different districts of western Uttar Pradesh and further, 30 students from each district of each category were selected. To compare anthropometric measurement among the students of Education and Physical Education, 't-test' was applied.

Conclusion: Analysis of the result was found significant differences between the mean scores of education and physical education students in relation to Standing Height, Leg Length, Arm Length, Sitting Height and Body Weight as their t-value was found 8.284, 15.924, 4.344, 7.881 and 2.996 which were higher value than the required value at 0.05 level of significance. The result of the study also showed that all parameters of anthropometric measurements i.e. Standing Height, Leg Length, Arm Length, Sitting Height and Body Weight of Physical Education Students were found greater than Education students of Western Uttar Pradesh.

Keywords: Anthropometric Measurements, Education Students and Physical Education Students.

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INTRODUCTION

The world of sports is growing with the force of competition and enlarging scientific studies of human movement. Nature of sports is dynamic and for load it is progressive. It's limited to "what has been", but it's goal is to fix new targets. The field of Sports and Physical Education are international disciplines because they expand international understanding and worldwide brotherhood in present politically conflicting lives. Sport movements are considered as one of the major adhesive forces for developing world peace. It may also serve as one of the effective means in solidifying national integration and developing national character. The sport has become the media of international relationship of the countries.

Sports are an important aspect of life. They play an important role in the mental, physical, and social development of the nation. The past few decades have seen humans on this field in innovation. Games are increasingly becoming sophisticated technology, with the expansion of educational facilities in the country; they are getting popularity as a separate profession. More youths are participating in sports as

a daily specialty of their lives. Participation in sports and physical fitness enhances a discipline and social harmony. (Sadri, 1993).

The craving for a medal in Asian and other international tournaments has catalyzed sports scientists to pick up “interest in exploring all the aspects and possibilities which can contribute to enhance sports performance to understand heights”. It has been seen, that “much of the human physiology is controlled by human psychology”. The research on effect of anxiety on sports performance has become a major subject for sports psychologists in recent years. To consider a person's performance, the degree of perceived concern is an important factor.

Anthropometric measurements are measurements of the structure of the human body, which are taken on specific sites to give measurements of length, circumference and width. Anthropometry attempts to measure human physical characteristics carefully and legally, and thus causes them to specify functional limitations and benefits. Sports scientists have attempted to maximize the methods of anthropology through the complete research done in this field, so that nowadays human sciences can be widely used in physical education studies.

The normal pattern of healthy growth is quite similar from one person to another, but there is quite a different variability in size and the rate of development in different ages, for the whole body and its specific parts. The entire body and its parts should, therefore, be measured, and studies of development are substantially synonymous with measurement.

The Far-East and especially its multi-national southern countries represent an “open area” for the human biologists, since neither the results of nation-wide nor representative regional data collection were published. Following the functional approach, the scientific study of growth and development inform us about the present and also the future health status of the developing generations (Malina and Bouchard 1991).

STATEMENT OF THE PROBLEM

The purpose of the Research is to compare the Anthropometric measurements among the students of Education and Physical Education.

OBJECTIVES OF THE STUDY

The objectives of the study were to study and compare the Anthropometric Measurement among the students of Education and Physical Education in Western Uttar Pradesh

DELIMITATIONS

The study was delimited to the 600 undergraduate students of Western Uttar Pradesh and further, delimited to Anthropometric measurement variables i.e. Standing Height, Sitting Height, Leg Length, Arm Length and Body Weight.

LIMITATIONS

The state of mind, dietary habits, geographical conditions and their socioeconomic background of the subjects might have affected the result of this study, hence considered as limitation of the study.

HYPOTHESIS

Based the available review literature, expert advice & suggestions and own understanding of researcher, it was hypothesized that: There will be a significant difference in Anthropometric variables i.e. Standing Height, Arm Length, Leg Length, Sitting Height and Body Weight among the students of Education and Physical Education.

SELECTION OF SUBJECT

The total numbers of 600 subjects (300 from Education and 300 from Physical Education).were selected from 10 different districts of western Uttar Pradesh and further, 30 students from each district of each category were selected.

SELECTION OF VARIABLES AND CRITERION MEASURES

To compare the anthropometric measurement, among the students of education and physical education, Standing Height (SH), Leg Length (LL), Arm Length (AL), Sitting Height (SH) and Body Weight (BW) were considered as research variables. Standing Height (SH) was measured with Stadiometer, Leg Length (LL), Arm Length (AL), Sitting Height (SH) were measured with the help of steel tape and Body Weight (BW) was measured with the help of weighing machine.

TESTERS COMPETENCY

Test-retest method was employed by conducting the measurements on 10 subjects on two different days before taking the final measurements on all the subjects for assessing tester’s competency.

COLLECTION OF DATA

The data for the study were collected from the 600 undergraduate students (300 from Education and 300 hundred from Physical education) who were selected from the government, semi-government or private colleges of ten Districts of Western Uttar Pradesh.

STATISTICAL TECHNIQUE

To compare anthropometric measurement among the students of Education and Physical Education, ‘t-test’ was applied.

FINDINGS OF THE STUDY

TABLE-1

Comparison of Anthropometric Measurements between the Students of Education and Physical Education

Variable		Education Students	Physical Education Students	t-ratio
Standing Height (SH)	Mean	171.28	174.45	8.284*
	S.D	05.18	04.13	
Leg Length (LL)	Mean	74.11	80.57	15.924*
	S.D	04.81	05.51	
Arm Length (AL)	Mean	60.03	61.09	4.344*
	S.D	03.36	02.51	
Sitting Height (SH)	Mean	87.74	89.76	7.881*
	S.D	03.65	02.54	
Body Weight (BW)	Mean	70.92	72.29	2.996*
	S.D	06.32	04.77	

*Significant at .05 level, t-value required to be significant at 599 df =1.960

It is evident from table-1 that significant difference was found between the mean scores of education and physical education students in relation to Standing Height, Leg Length, Arm Length, Sitting Height and Body Weight as their t-value was found 8.284, 15.924, 4.344, 7.881 and 2.996 which were higher value than the required value at .05 level of significance. It shows that the anthropometric measurements of physical education students were found greater than Education students of Western Uttar Pradesh.

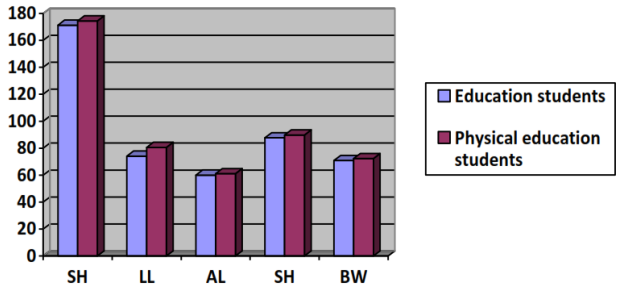

Figure-1

Graphical Representation of comparison of Anthropometric Measurements between the Students of Education and Physical Education

CONCLUSION

Analysis of the result was found significant differences between the mean scores of education and physical education students in relation to Standing Height, Leg Length, Arm Length, Sitting Height and Body Weight as their t-value was found 8.284, 15.924, 4.344, 7.881 and 2.996 which were higher value than the required value at .05 level of significance. The result of the study also showed that all parameters of anthropometric measurements i.e. Standing Height, Leg Length, Arm Length, Sitting Height and Body Weight of Physical Education Students were found greater than Education students of Western Uttar Pradesh.

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