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Anthropometric measurements of teenagers

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ABSTRACT

Anthropometry is the measurement of certain parameters of the human body. Anthropometry has also been used to study the growth and development of school aged children and adolescents. Anthropometric data can be used as a basis for general standards and specific requirement in the design of new systems and in the evaluation of existing ones. In this study, 31 anthropometric variables were measured. The results obtained were subjected to the statistical analysis and presented in table forms as the mean, SD, minimum, maximum and percentile according to gender. The findings may provide some useful data for architects and designers for developing furniture for teenagers at school and home.

KEY WORDS : Anthropometry, Teenagers, body measurement, Percentile

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Anthropometry is the science dealing with the static and dynamic measurements of human body and needs to be studied for developing proper, comfortable and convenient setups so as to enable the worker to compute the activities without postural stress. Since long time anthropometry has been used to study the growth and development of school age and adolescents.

Anthropometry is the study of people in terms of their physical dimensions and their capabilities. It includes the measurement of human body characteristics, such as height, weight, breadth and distance between anatomical points.

Oxford dictionary gives the meaning of term anthropometry as, "the measurements of human body with view to determine its average dimensions at different ages and in different classes".

The need for anthropometric data arises because people are different in age, sex, geographical regions, even different occupations and all these influence human body dimension. Anthropometric data can be used as a basis for general standards and specific requirements, in the design of new systems and in the evaluation of existing ones. The reason for applying anthropometric data to the selection of design of tools, equipments, workstation etc. is to make sure that the design can be used easily, comfortably and productively by all workers who will be required to use it.

The review provides a guideline to formulate the problem precisely and hence account of studies is given below.

Mououdi(1997) took 28 anthropometric measurement of 179 students of both sexes at the university of Teheran to determine the static anthropometric characteristics of the students.

Parcells *et al*. (1999) took anthropometric measurements of students' body dimensions to study mismatch between students' body dimensions and furniture that they use.

Ten anthropometric measurements were taken by Jeong and Park (1993) from 1248 subjects (age range 6-17 years) to study the sex differences in interrelationship between body dimensions, to provide suitable sizes of chair and desk for boys and girls.

In order to determine, the anthropometric characteristics of university girl students, Gonen and Kalnkara (1993) took 20 anthropometric measurements of 204 students and the results were used as data base for designing and planning for the ready-made wear industry and places like school, laboratory, theatre, conference halls etc.

The present study was carried out to study the anthropometric measurements of teenagers.

RESEARCH METHODS

This study was conducted in Parbhani city. The data to be used for study of the anthropometric characteristics of the students was obtained from student of three schools and one college. Total 300 teenagers (150each of girls and boys) within age range 13-18 years were selected