

UNIVERSITI TEKNOLOGI MARA (UiTM)

**THE SURVEY OF ANTHROPOMETRIC VARIATION FOR
CLASSROOM FURNITURE DESIGN FOR PRIMARY STUDENT**

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DECLARATION

“I hereby declare that submissions is my own work and that, to the best to my knowledge and belief, it contains no material previously published or written by another neither person nor material which to a substantial extent that has been accepted for the award of another degree or diploma university of other institute, except where due to acknowledgement has been made in text”

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Abstract

Objective: This study identifies the adequate number of school furniture design that can suit the children of all age groups in Malaysia primary school.

Method: A survey has been conducted and the anthropometric data was recorded by using anthropometric form. The anthropometric of 241 students in Sekolah Kebangsaan Parit 9, Sekinchan, Selangor having the age range of 7 – 12 years (standard 1-6) measured.

Results: All the anthropometry dimensions measured of the students increase with age that is from standard 1 to standard 6. The mean between standard 1 and standard 6 are from 3.8% to 31.3%. The mean between standard 1 and standard 3 are from 1.6% to 10.9% and in case of standard 4 and standard 6 vary from 2.1% to 12.2%. The differences between mean values of standard 1 and standard 2 are from 1.3% to 6.4% while between standard 3 and standard 4 are from 0.1% to 8.2% and in case of standard 5 and standard 6 are from 1.3% to 8.2%.

Discussion: The mean differences of body dimensions were extremely large when compared between the students of grade 1 and grade 6. Therefore, design for single group (grade 1-6) will not be suitable for matching user body dimension and furniture dimension. The mean difference between the group of furniture design selected for two age group (grade 1-3 and grade 4-6) and for three age group (grade 1-2, grade 3-4, grade 5-6) were small.

Conclusion: It is suggested to formulate furniture design for two different age groups, one for the first three grades (grade 1-3) and one for the last three grades (grade 4-6) of primary school. Otherwise there are chances for misfit between the school furniture and the anthropometric dimensions of the students. This study can give benefit information to Malaysian OSHA, Ministry of Education (Malaysia) and school furniture designer.

Keywords: student, anthropometry, school furniture, primary school, musculoskeletal disorder (MSD)

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