

## Classroom Furniture and Student Body Dimensions in East Malaysian Primary Schools\*

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**Abstract.** This study investigates the mismatch between chair and desk dimensions and student body dimensions. The objective of this study is to determine whether design improvement and further study is required in order to improve the conditions in Malaysian primary schools. The supplied standard government issued classroom furniture was measured and anthropometrics measurements data were collected from 120 students from two pilot study schools in Kuching, Sarawak covering all age groups. The pilot data indicate a substantial degree of mismatch between the student body dimensions and the classroom furniture. The chair is either too high or too deep for the students. The data also shows that the desk is too high for most of the students. The result is of great concern which could affect students in other school throughout Malaysia and pose a great risk of back problems among students in Malaysia. Further investigations and detail studies are suggested in order to provide better understanding of the problem and improve the condition

**Keyword:** classroom furniture, Malaysia primary students, anthropometric mismatch

**Abstrak.** Studi ini menyelidiki ketidakcocokan antara ukuran bangku dan meja dengan dimensi tubuh siswa. Tujuan studi ini adalah untuk menentukan apakah perbaikan desain dan studi lebih lanjut diperlukan untuk memperbaiki kondisi di sekolah dasar Malaysia. Perabotan standar ruang kelas yang dipasok oleh pemerintah, diukur dan data ukuran antropometrik dikumpulkan dari 120 siswa (dari segala umur), dari dua sekolah yang dijadikan proyek contoh di Kuching, Sarawak. Data dari proyek contoh menunjukkan bahwa ada tingkat ketidakcocokan yang tinggi antara dimensi tubuh siswa dan perabot ruang kelas. Bangku yang digunakan terlalu tinggi atau terlalu dalam untuk para siswa. Data juga menunjukkan bahwa meja terlalu tinggi untuk sebagian besar siswa. Hasil ini patut diperhatikan karena dapat mempengaruhi pula siswa-siswi lain di sekolah lain di seluruh Malaysia dan dapat mengakibatkan cedera punggung untuk siswa-siswi Malaysia. Diperlukan penyelidikan lebih lanjut dan studi yang lebih menyeluruh untuk lebih mengerti masalah ini dan memperbaiki kondisi tersebut.

**Kata kunci:** perabot kelas, siswa sekolah dasar Malaysia, ketakcocokan antropometrik

Malaysian school children spend a large part of their day sitting in a classroom environment comprising the normal school hours as well as the almost daily routine of tuition classes. This prolonged sitting posture most often without support from a backrest makes them susceptible to risk

of suffering negative effects from badly design and ill fitting furniture [1]. Furniture wrongly designed and ill fitted to the characteristics of a child can result in defective posture and the establishment of pathological states which could affect their performance in focusing in class and faster

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