

# **Mismatch Analysis of Classroom Furniture and Student Body Dimensions in Public Elementary Schools in District V Manila, Philippines**

**Jazel Ann M. Atienza, Consuelo A. Ortiguerra, Ma. Elisa Rosario D. Tapuro,  
Christian Oliver A. Cruz, MscErg, PTRP**

## Abstract

Research suggests that mismatch between the classroom furniture dimensions and student body dimensions is a possible cause of musculoskeletal syndromes among school pupils. This study aims to identify possible mismatch between school furniture dimensions and student body dimensions in public elementary schools in District V, Manila, Philippines. One hundred fifty three grade three students from co-educational public elementary schools in District V, Manila, Philippines, whose ages range from 8-10 years, were selected through simple random sampling. Five types of furniture were used by the pupils in the classroom (f1, f2, f3, f4 and f5). Mismatch was calculated using objective data analysis. A modified Nordic Questionnaire was used to inquire about perceived regional discomfort caused by the school furniture. Mismatch between the anthropometric characteristics of the pupils and the dimensions of the furniture were determined using the criteria described by Parcels et al (2001). Results show that there is a mismatch between the classroom furniture dimensions and the body dimensions of the subjects specifically between the popliteal height and seat height, buttock-popliteal length and seat depth, and table height and elbow rest height. Cultural and psychosocial factors, along with the cognitive stage of the subjects, may have accounted for the discrepancy between subjective and objective data.