

Guest Editorial

Children and Ergonomics, Part 2

It is, again, an honor to serve as the guest editor for another special issue of *WORK: A Journal of Prevention, Assessment and Rehabilitation*, that focuses on ergonomics issues concerning young people. This is the second of two issues dedicated to the memory of Cheryl Bennett, whose passion and profession merged in her efforts to educate parents, teachers, school administrators, and her fellow ergonomists about the importance of applying ergonomics principles to the work of children, that being learning and the design of learning environments. The articles in this second issue provide additional interesting insights on current research concerning ergonomics and young people in a variety of age groups and learning and performance settings, from authors around the world.

The contributions by two groups of authors, each lead by Rice, both address the core objective of the discipline of human factors/ergonomics: developing an understanding of the humans in a system and designing that system to facilitate the successful performance of those humans operating in it. Both of Rices' papers examine military personnel in their roles as students in the portion of their training that occurs just after basic training, and are concerned, in one case, with reducing performance-limiting musculoskeletal injuries that occur during that advanced training, and in the other case, improving the graduation rate from their advanced training by understanding and addressing differences in learning styles, success orientation, and other student characteristics related to performance.

Menendez and colleagues provide two contributions that are concerned with methodologies employed in the study of upper extremity musculoskeletal disorders (MSDs) in college students. In one study, they use handheld computers to collect data on symptoms, to document and provide information about symptom temporal variability over the course of a semester. In their second and related study, they compared the correspondence of two different evaluation methods with re-

ported MSD symptoms. These companion pieces also demonstrate the feasibility of conducting longitudinal research on college students.

Adolescent students and computer use is the focus of two studies in this issue. Siu and Tse provide the results from a survey on computer use and the prevalence of musculoskeletal discomfort in a large sample of younger teenagers in Hong Kong. Korkmaz and Sommerich describe a study of high school students engaged in participatory learning and teaching about healthy computing, as part of an effort to reduce computer use-related MSD occurrence in students and provide students more control over their learning environment.

In addition to these studies focused on computer use, several papers in this issue explore other potential school-related risk factors for students' musculoskeletal discomfort. Effects of classroom layout and design of classroom furniture on grade school students in Sri Lanka is described in the contribution by Jayaratne and Fernando. Effects of classroom furniture on grade school and high school student in one Midwestern city in the US is described in the contribution by Brewer et al. Both sets of authors found mismatches between furniture dimensions and student anthropometry to be extremely common, practically the norm rather than the exception. However, findings of associations with MSD symptoms were mixed; thoughtful discussions about their findings are provided by the authors. Rudolph and Griffiths provide a technical note about mismatches between classroom furniture and users in a university setting. They found that new classroom tables were ready for laptop computers (Ethernet and power were wired in), but the table height and clearance was not sufficient for many of the laptop PC users (university students). The authors include discussion of their assessment and recommendations. Musculoskeletal discomfort and potential linkage to backpack use is the subject of the paper by Talbott et al. Their study

focused on grade school and high school students, and investigated weight, backpack features, and time worn.

As with the first special issue of *WORK* (Volume 32, Number 3), we hope readers find this second special issue to be both informative and inspirational. The systems in which students perform clearly do affect their performance. This has been shown in numerous studies, including studies that appear in this issue. Yet there is still much to discover; some of the voids are identified by authors whose works appear in this issue and these voids should be seen by readers as opportunities for future investigation. Research about and with stu-

dents can be challenging, but also very interesting and rewarding. Readers are asked to consider what contributions they might be able to make in this arena. . . .

Carolyn M. Sommerich, Ph.D.

Guest Editor

1971 Neil Avenue

210 Baker Systems

Columbus, OH 43210, USA

Tel.: +1 614 292 9965

Fax: +1 614 292 7852

E-mail: sommerich.1@osu.edu