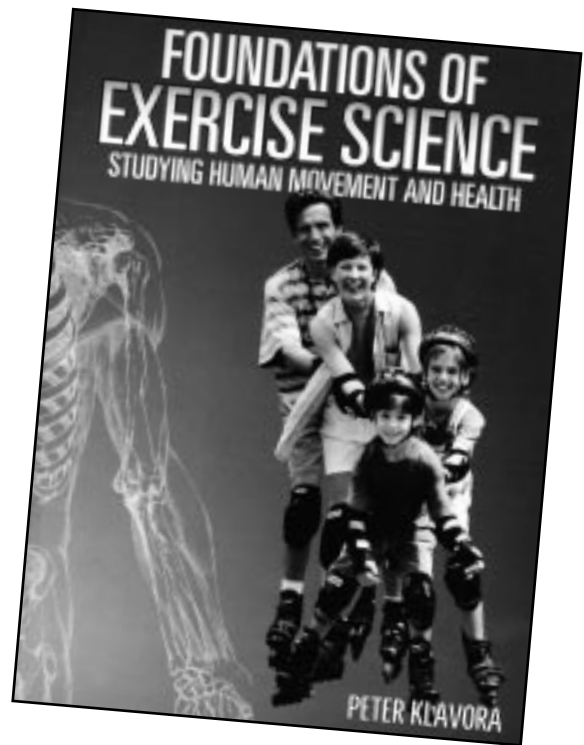


## Foundations of Exercise Science: Studying Human Movement and Health (2004)

**Author: Peter Klavora**

Both David Chorney, Ph.D. from the Faculty of Physical Education at the University of Lethbridge and Ken Lodewyk, Ph.D. from the Physical Education and Kinesiology Department at Brock University offer their insights on Peter Klavora's text.

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According to David Chorney, *Foundations of Exercise Science: Studying Human Movement and Health* offers a diverse range of well-researched, vital information for all educators studying, teaching, or researching in the fields of Kinesiology, Health Education or Physical Education. This text is a well-written compilation of five distinct categories further subdivided by related chapters within each category.

Written as Unit One, this first section of the text focuses on *The Biological Basis of Human Movement*. In particular, chapters related to human anatomy, biomechanics, and how muscles work when exercised, are highlighted. Captivating images and a very educationally sound explanation of these and other aspects of human movement are well presented.

Unit Two highlights *Human Performance* with specific chapters dedicated to fitness improvement, nutrition, and performance enhancing substances. A plethora of visually stimulating charts, photos and graphs bring meaning to the written word and offer the reader a wide range of content to absorb and contemplate.

Unit Three targets the all-encompassing term *Motor Development* and contains specific chapters directed at growth and development, information processing in motor learning, along with discussions on how skill acquisition occurs within motor learning practice. This is a very important section of the text as it provides the kind of content and knowledge that permeates all fields of study in health and physical education.

Unit Four addresses the theme of *Physical Activity and Sport in Society*. This chapter does well to discuss the social context issues and often-debated controversies that sport and physical activity

have been known to create. An abundance of photos, anecdotes with a strikingly clear Canadian focus are presented in this fourth unit of the text.

The Fifth and final unit of content in Klavora's text target the topics of research methods and statistical concepts. The author has included these key areas as a means to bring together and show the relationship between the content previously discussed in the text and to show how research and understanding statistical concepts can take learning and knowledge acquisition one step further for both the teacher and the student.

In conclusion, this textbook offers all educators from a variety of backgrounds within the fields of Kinesiology, Health Education, and Physical Education an opportunity to further their content knowledge in order to help educate students under their tutelage. The information is current, well researched, and substantially Canadian in content, which allows all educators from across Canada an alternative to other texts which they may have felt obligated to use in the past. I would recommend this text for all educators who desire an all-

encompassing text that can be easily utilized for many different courses offered in post-secondary institutions across Canada focusing on programs related to Health, Kinesiology, Physical Development and Motor Learning.

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According to Ken Lodewyk, *Foundations of Exercise Science: Studying Human Movement and Health* is suitable for senior high school or introductory university exercise science courses. The price is fair (\$46.95 for the 548 page binder version) and the scope of the content is comprehensive. The wide range of presented topics align well to, and progress logically through, curricular outcomes for university preparation courses in exercise science.

The textbook has been sanctioned by both the Ontario Physical and Health Educator's Association (OPHEA) and the Ontario Ministry of Education for use in the Grade 12 Exercise Science course (PSE4U). The credentials of the contributing authors and academic reviewers (university faculty) validate the content, which, though perhaps quite challenging or initially overwhelming for the typical grade 12 student, can be appropriate developmentally if utilized selectively according to contextual factors like prior knowledge, motivation, and available time. Including valuable input from teacher and student reviewers when developing the resource(s), likely contributed to the numerous large, attractive, energetic images (e.g., colorful and current pictures, graphics, and illustrations). A caution to consider is that, if too dominant, such images can minimize the importance of the narrative by distracting learners away from the critical content in that narrative thereby reducing overall comprehension (Garner, Gillingham, & White, 1989).

Physical and health educators – particularly those striving to foster understanding (rather than just recall) and critical literacy skills like communication, thinking, and inquiry – will likely value the logical and inter-related organizational pattern of the book along with the useful supplemental instructional resources like the Teacher's Guide with a test bank (\$46.95), Student Workbook (\$12.95), and Graphics Package (\$263). The expressive style in the text is seemingly free from gender or cultural bias and flows naturally relative to that of more scientific or scholarly writing that frequently includes trivial statistics and details about empirical research that can be too

advanced for the cognitive level of this intended audience. The visual (i.e., headings, sub-headings, highlighted vocabulary, matrices) and the organizational design features of each chapter (introductory statements, graphic organizers) are useful aids to learning; yet, potential for deeper comprehension might be enhanced if advance organizers were used more effectively before each chapter or unit to activate students' prior knowledge and, if application exercises (i.e., short lists of interesting cerebral challenge questions involving short case studies) were embedded periodically with the narrative instead of mainly in the student workbook.

In conclusion, as Tyree, Fiore, and Cook (1994) assert: "An ideal text is not necessarily defined by this particular list of features. Rather, an ideal text is seen as a resource that has been informed in its design selection, and application by experts in relevant fields of thinking . . . and by invested constituents . . . in assuring its accessibility to the broad range of learners within a specific learning context" (p. 363). Having considered these factors, Klavora and his associates are to be commended for this valuable contribution to their targeted audience.

## References

- Garner, R., Gillingham, M., & White, C.S. (1989). Effects of "seductive details" on macroprocessing and microprocessing in adults and children. *Cognition and Instruction*, 6, 41-57.
- Klavora, P. (2004). *Foundations of movement science: Studying human movement and health*. Toronto: Sports Books Publisher.
- Tyree, R.B., Fiore, T.A., & Cook, R.A. (1994). Instructional materials for diverse learners. *Remedial and Special Education*, 15, 363-378.

The *PHE Journal* would like to thank both David Chorney, Ph.D. and Ken Lodewyk, Ph.D. for writing a book review on Klavora's (2004) text. If you are interested in submitting a book review to the PHE Journal, please contact Rebecca Lloyd, Ph.D., the PHE Journal Editor at [PHEJournal@cahperd.ca](mailto:PHEJournal@cahperd.ca).

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