

Keynote Speaker

Geoff Norman, McMaster University, Hamilton, Canada

Title: "The things we know, the things we think we know but don't, and the things we don't know but should"

Short abstract

Education is undergoing a quiet revolution resulting from findings in cognitive psychology that can lead to substantial gains in learning with minimal investment

Long abstract

It is now more or less accepted that all educational interventions are created approximately equal. Systematic reviews comparing problem-based learning with conventional instruction tend to show quite small effects. Systematic reviews show that various digital technologies (virtual patients, e-learning) have typical effect sizes of 1.0 when compared to no instruction but 0.0 when compared to any alternative. Such findings provide little basis for continuing to conduct research comparing curricula, yet we persist in advocating the virtues of one learning method over another. Such persistent beliefs in the face of negative evidence are pervasive in education

Conversely, contemporary educational psychology has identified a number of powerful educational interventions that can lead to large learning gains with minimal investment. Some examples are mixed practice, distributed practice, test-enhanced learning. Yet these strategies remain largely unknown to the medical education community.

In this talk, I will systematically explore things we think work that don't, and things that do work that we don't know about. I will then advance some reasons why this may be the case, and some suggested strategies to avoid these problems in future.

Geoff Norman, PhD, is Professor of Clinical Epidemiology and Biostatistics, McMaster University. He received a B.Sc. in physics from the University of Manitoba in 1965 and a Ph.D. in nuclear physics from McMaster University in 1971, and subsequently a M.A. in educational psychology from Michigan State University in 1977. He is the author of 10 books in education, measurement and statistics, and over 200 journal articles. He has won numerous awards, including the Hubbard Award from the National Board of Medical Examiners, the Outstanding Achievement Award of the Medical Council of Canada, the Distinguished Scholar Award of the American Educational Research Association, and the Karolinska Prize for Lifetime Achievement in Medical Education . He presently holds a Canada Research Chair. He was elected to the Royal Society of Canada in 2007. He received an honorary doctorate from Erasmus University, Rotterdam in 2010.

