Recommended Books re Teaching and Learning, Medical Education, and Family Medicine Education

Prepared by Wayne Weston MD, May 2019.

General Books on Teaching and Learning:

Brown PC, Roediger HL III, McDaniel MA: *Make It Stick – the Science of Successful Learning.* Cambridge Massachusetts: The Belknap Press of Harvard University Press, 2014.

Carey B: How We Learn: The Surprising Truth About When, Where, and Why It Happens. New York: Random House, 2014.

Ericsson A, Pool R: *Peak: Secrets from the New Science of Expertise*. London: The Bodley Head, 2016. A great overview of deliberate practice.

Hattie J, Yates G: *Visible Learning and the Science of How We Learn*. London: Routledge, 2014. Building on the previous book, John Hattie (Director of the Melbourne Education Research Institute at the University of Melbourne) teamed up with Gregory Yates (a researcher in the areas of cognitive information processing & social learning theory). This book provides a summary of much of the research underlying key concepts in education – the role of feedback, what does expertise look like, how knowledge is acquired and stored in the mind, the impact of cognitive load, memory & how it develops, thinking fast & thinking slow, etc.

Hattie J: *Visible Learning for Teachers – Maximizing Impact on Learning*. New York: Routledge, 2012. This is a remarkable book that summarizes the results of over 900 meta-analyses of studies about what makes a difference to learning. Although focused on classroom strategies, it has application to design of instruction, lecturing, small group teaching and some aspects of clinical teaching (relationship between teacher & learner & feedback). An Appendix lists the effect sizes of many influences on achievement.

Merry S, Price M. Carless D, Taras M: Reconceptualizing Feedback in Higher Education – Developing Dialogue with Students. London: Routledge, 2013.

National Academies of Sciences, Engineering, and Medicine: *How People Learn II – Learners, Contexts, and Cultures.* Washington: National Academy Press, 2018. (Available online free from the National Academy Press.) This book, authored by a large number of education experts, including psychological and cognitive scientists, summarizes recent research on learning from a variety of disciplines including neuropsychology and cultural and social psychology. It is an update of the

groundbreaking first edition published in 2010. In the summary of the book, the authors state: "In addition to expanding scientific understanding of the mechanisms of learning and how the brain adapts throughout life, they have continued to make important discoveries about influences on learning, particularly sociocultural factors and the structure of learning environments. At the same time, technological developments have both offered new possibilities for fostering learning and created new learning challenges." This is essential reading for serious scholars of education.

Palmer PJ: *The Courage to Teach – Exploring the Inner Landscape of a Teacher's Life.* 10th Anniversary Edition. San Francisco: Jossey-Bass, 2007. This is a remarkable book based on the premise that "good teaching cannot be reduced to technique but is rooted in the identity and integrity of the teacher...We teach who we are." Palmer inspires us to reflect on our work as teacher – he explores our good days and bad and the vital importance of self-knowledge to "serve our students and our scholarship well." This is a wonderful, thoughtful and thought-provoking book. It is exactly what we need when we are feeling like impostors on those horrible days when all our teaching plans fail. The accompanying CD contains a discussion among Palmer and his colleagues about the Center for Courage and Renewal.

Schön: Educating the Reflective Practitioner - Toward a New Design for Teaching and Learning in the Professions. San Francisco: Jossey-Bass, 1987. Schön argues that professionals tackle real-life problems using a reflective approach ("reflection-inaction" and "reflection-on-action") rather than the traditional approach of applying basic science to well-formed problems with clear-cut answers which he calls "technical rationality". In real-life, problems are messy, often involve considerable uncertainty and value conflict and every situation is unique so that the established theories may not apply. He argues that our curricula need to address the realities of practice and prepare our graduates for these messy indeterminate situations. Everyone involved in medical school curricula should read this book. Schön's earlier book, The Reflective Practitioner – How Professional Think in Action, is also a valuable read.

Schwartz DL, Tsang JM, Blair KP: *The ABCs of How We Learn*. (20 scientifically proven approaches, how they work, and when to use them). New York: WW Norton, 2016.

Books on Medical Education:

Bleakley A, Bligh J, Browne J: *Medical Education for the Future – Identity, Power and Location*. New York; Springer, 2011. This book anchors medical education in an understanding of identity formation. It is a challenging but worthwhile read.

Boudreau JD, Cassell E, Fuks A: *Physicianship and the Rebirth of Medical Education*. Oxford: Oxford University Press, 2018. This wonderful book describes an approach to medical education based on a person-centred and function-focused health care. Students are taught to explore with patients how their illnesses impair their ability

to achieve what matters to them and to provide care that addresses these impediments. Rita Charon states that the authors "challenge their readers to reimagine a medicine that respects patients, nourishes doctors, contributes to health, and enhances life. And then they tell us all how we can get there. They are as earnest as Job, as clear-eyed as Chekhov, as creative as William Carlos Williams, and as demanding as Osler." It is exciting to realize that the curriculum they describe is in place at the McGill medical school.

Cleland J, Durning SJ (editors): *Researching Medical Education*. Oxford: Wiley Blackwell, 2015. This text provides a concise overview of the many approaches to research in medical education.

Cooke M, Irby DM, O'Brien BC: *Educating Physicians – A Call for Reform of Medical School and Residency*. San Francisco: Jossey-Bass, 2010. The authors argue that professional formation is the central task of medical education.

Cruess RL, Cruess SR, Steinert Y (editors): *Teaching Medical Professionalism – Supporting the Development of a Professional Identity*. 2nd edition. Cambridge: Cambridge University Press, 2016. This is a superb description of teaching professionalism from the perspective of professional identity formation.

Dall'Alba G: Learning to be Professionals. New York: Springer, 2009. This text provides a challenge to the current approach to education in the health professions and offers an alternate model for the education of aspiring professionals including a valuable ontological approach to understanding the process of becoming a professional.

Dornan T, Mann K, Scherpbier A, Spencer J (Editors): *Medical Education – Theory and Practice*. Churchill Livingstone Elsevier, 2011. One of the two best BIG books on medical education.

Hafferty FW, O'Donnell JF (Editors): *The Hidden Curriculum in Heath Professional Education*. Hanover, New Hampshire: Dartmouth College Press, 2014.

Hafler JP (Editor): *Extraordinary Learning in the Workplace*. New York: Springer, 2011. This book addresses several concepts fundamental to clinical education – the formal & informal curricula; coaching, mentoring, and supervision; practical approaches to assessment; faculty development for workplace instructors; envisioning the future.

Hodges BD, Lingard L (Editors): *The Question of Competence – Reconsidering Medical Education in the Twenty-First Century*. Ithaca & London: ILR Press, 2012. Essential reading on competency-based medical education.

Holmboe ES, Hawkins RE: *Practical Guide to the Evaluation of Clinical Competence*. Philadelphia: Mosby/Elsevier, 2008.

Kalet A, Chou CL (editors): *Remediation in Medical Education: A Mid-course Correction.* New York: Springer, 2014. A comprehensive approach to analyzing and rectifying the many reasons why students fail to measure up to the demands of physicianhood.

Kern DE, Thomas PA, Hughes MT (Editors): *Curriculum Development for Medical Education – A Six-Step Approach*. 2nd Edition. Baltimore: The Johns Hopkins University Press, 2009. The best book on curriculum in medical education.

Levinson W, Ginsburg S, Hafferty FW, Lucey CR: *Understanding Medical Professionalism*. New York: McGraw Hill Lange, 2014. Of the many recent books on professionalism, this is one of the best and focuses on a competency-based approach. It's an interesting complement to the Cruess, Cruess & Steinert book above.

Ludmerer KL: *Let Me Heal – The Opportunity to Preserve Excellence in American Medicine.* Oxford: Oxford University Press, 2015. This is the 3rd in a series of books by Ludmerer on the history of medical education in the U.S. This one focuses on the history of the development of postgraduate medical education.

McKee A, Eraut M (Editors): *Learning Trajectories, Innovation and Identity for Professional Development*. New York: Springer, 2012.

Norman GR, van der Vleuten CPM, Newble DI (editors): *International Handbook of Research in Medical Education*. (Two volumes) Boston: Kluwer Academic Publishers, 2002. These two volumes provide an overview of research in all aspects of medical education. This will form the starting point for subsequent research and scholarship in medical education. Unfortunately, the price is prohibitive (at least \$727) for individual purchase but should be available in any well-stocked medical education library.

Scanlon L (Editor): "Becoming" a Professional – An Interdisciplinary Analysis of Professional Learning. New York: Springer, 2011. Similar to the book by Dall'Alba, this volume elaborates on an ontological understanding of health professions education.

Shields HM: *A Medical Teacher's Manual for Success: Five Simple Steps*. Baltimore: The Johns Hopkins University Press, 2011.

Swanwick T, Forrest K, O'Brien BC: (Editors): *Understanding Medical Education – Evidence, Theory and Practice.* 3nd Edition. Hoboken, NJ: Wiley-Blackwell, 2019. One of the two best BIG books on medical education.

Walsh K: Oxford Textbook of Medical Education. Oxford: Oxford University Press, 2016. Unfortunately very expensive (\$400) but it's very comprehensive. Also available as an online version.

Books on Faculty Development:

Beach AL, Sorcinelli MD, Austin AE, Rivard JK: *Faculty Development in the Age of Evidence – Current Practices, Future Imperatives*. Stirling Virginia: Stylus Publishing, 2016.

Boice R: *Advice for New Faculty Members – Nihil Nimus*. Boston: Allyn and Bacon, 2000. (Nihil Nimus – nothing in excess.) This book provides practical tips in three areas: teaching, writing, and the academic culture. It is full of practical and wise advice – it is one of my favourites.

Boice R: *The New Faculty Member - Supporting and Fostering Professional Development.* San Francisco: Jossey-Bass, 1992. This is a gem - very practical advice for new faculty members about how to get started and keep going. It gives good advice about how to organize your work to be able to write effectively. Also helpful are suggestions about forming effective networks of colleagues. This text is written to aid faculty developers to provide programs to assist new faculty members. The newer volume below is directed at the new faculty members themselves.

Gillespie KH, (Editor), Hilsen LR, Wadsworth EC (Associate Editors): *A Guide to Faculty Development – Practical Advice, Examples, and Resources*. Bolton Massachusetts: Anker Publishing, 2002.

Gillespie KJ. Robertson DL, and Associates: *A Guide to Faculty Development, 2nd Edition*. San Francisco: Jossey-Bass, 2010. Although both of these books were edited by Gillespie and have the same title, the chapter authors are mostly different.

Rayburn WF, Turco MG, Davis DA: *Continuing Professional Development in Medicine and Healthcare.* Philadelphia: Wolters Kluwer, 2018. Although focused primarily on CPD, many of the issues discussed are relevant to faculty development. The valuable chapter by Ivan Silver and Karen Leslie compares and contrasts faculty development and CPD.

Sorcinelli MD, Austin AE, Eddy PL, Beach AL: *Creating the Future of Faculty Development – Learning from the Past, Understanding the Present*. Bolton Massachusetts: Anker Publishing, 2006. Based on a study of nearly 500 faculty developers, this slim volume addresses key issues facing faculty development in higher education: structural variations among faculty development programs; goals, purposes, and models that guide and influence program development, top challenges facing faculty members, institutions and faculty development programs; potential new directions and visions for the field of faculty development.

Steinert Y (Editor): Faculty Development in the Health Professions – A Focus on Research and Practice. New York: Springer, 2014. This is the only book in this list focusing on faculty development in the health sciences.

Books on Family Medicine Education:

Alguire PC, DeWitt DE, Pinsky LE, Ferenchick GS: *Teaching in Your Office – A Guide to Instructing Medical Students and Residents*. 2nd Edition. Philadelphia: ACP (American College of Physicians) Press, 2008. (This is one of a 6-volume set on medical teaching published by the ACP Press. The other titles: *Teaching in the Hospital, Methods for Teaching in Medicine, Mentoring in Academic Medicine, Teaching Clinical Reasoning, Theory and Practice of Teaching Medicine*)

Freeman T: *McWhinney's Textbook of Family Medicine*. 4th edition. Oxford: Oxford University Press, 2009. (As mentioned below regarding the Greenhalgh book, this text does not discuss how to teach but focuses on what to teach. All teachers of family medicine should be thoroughly familiar with this beautiful book.

Greenhalgh T: *Primary Health Care – Theory and Practice*. Oxford: Blackwell Publishing, 2007. (This book is not really about teaching but it does provide an excellent overview of the discipline although she does provide a few pages on learning theory. The value of the book for teachers is that it provides a superb conceptualization of what it is we need to teach.)

Kelly L: *Community-Based Medical Education: A Teacher's Handbook*. London: Radcliffe Publishing, 2012.

Rubenstein W, Talbot Y: *Medical Teaching in Ambulatory Care*. Toronto: University of Toronto Press, 2013. Practical and brief (132 pages). The chapter on Special Learning Situations is a gem, outlining common problems in clinical teaching & what to do about them e.g., trainees with poor judgment; students with ethnic, racial or gender prejudices; argumentative or sycophantic students; trainees who are overconfident, shy, lazy, lying or abusing drugs.

Stewart M, Brown JB, Weston WW, McWhinney IR, McWilliam CL, Freeman TR: *Patient-Centered Medicine – Transforming the Clinical Method*. 3rd edition. London: Radcliffe Publishing, 2014. At the risk of bragging, I include our book here. It contains a large section on teaching and education (148 pages) as well as a detailed description of the patient-centered clinical method (PCCM) and a short section on research. It is important to acknowledge that the PCCM is not just about communication – it is a complete clinical method.