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Book Review

A Review of "Minds Online: Teaching Effectively with Technology"

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Miller, M. D. (2016). *Minds Online: Teaching Effectively with Technology.* Cambridge, MA: Harvard University Press.

Abstract

Distance educators are increasingly in demand, as online programs and degrees become more readily available. Minds Online is a straightforward must-read for anyone who teaches in higher education, especially, though certainly not limited to, those teaching online. Established upon the cognitive psychology in understanding how learners assimilate knowledge, this book serves as a guide to understanding how to improve as an innovative, effective educator through technology usage, so that students are maximally engaged and reaping the benefits of the course, whether self-paced or face to face.

Keywords: *teaching with technology, online learning, multimedia, digital learners, cognitive psychology*

As the demand for online offerings continues to increase and prompt transformation in academia, there is a growing need for effective online educators. Miller's targeted audience focus is online instructors; however, face-to-face and hybrid instructors should benefit as well, since technology is a major component in live classrooms. Miller's audience may include both seasoned and new instructors in higher education.

Chapter One

Miller's introduction states that the book, "is about how cognitive science can help us shape and refine the ways in which we use technology to promote learning" (p. 1), however, it really explains and offers so much more information to its readers. The first chapter, Is Online Learning Here to Stay?, begins by clarifying why the demand for online learning has increased. Unfortunately, none of this is new information; yet,

someone new to the field would greatly benefit from learning about trends in higher education and the demands for online learning.

Chapter Two

The first part of Miller's second chapter, Online Learning: Does It Work?, is likely to be common knowledge for many. In spite of this, readers' interests will be piqued when the author details how much effort is required by online students compared to those attending face-to-face classes. Miller deconstructs the rigorous demands of online classes despite the skepticism heard by many opponents of online learning. Surprisingly, Miller claims that only ~30 percent of online faculty members actually believe in the value and legitimacy of the online learning environment. Miller did not disclose how she came to this conclusion, but this certainly opens the door for additional research and dialogue.

Chapter Three

The third chapter, The Psychology of Computing, delivers more information about the psychological aspect of technology than some readers may care to know; but, if you enjoy reading about myths and claims that have been made against users of technology (i.e., computers make you antisocial, online games are linked to ADHD, etc.), then you will enjoy this section. Miller is a professor of psychology, and so she is able to dissect these claims and explain

truths and falsehoods against them. She provides pedagogical implications, explaining how this information specifically translates into teaching with technology. Parts of this section were particularly informative, and educators will likely gain insights from this chapter. For example, one topic discusses the digital immigrant versus the digital native, and the preconceived notions many have about how these two groups of people view and interact with technology. She also discusses the pitfalls technology can bring to the classroom. Face-to-face, online, and hybrid instructors can benefit from the particulars, as they are relevant to various teaching contexts.

Chapters Four through Six

In the following three chapters, Miller explains the theoretical understanding of attention, memory, and thinking, respectively. Again, if the psychology behind these topics is not appealing, simply gloss over it and skip to the sections entitled What [insert Attention, Memory, Thinking] Means to Online Teaching and Learning. If readers choose to skip the sections that report on this underlying psychology, it will not impede their understanding of subsequent chapters, making the book user-friendly and more of a helpful reference resource. Within these three chapters, Miller delivers strategies centered on gaining and keeping students' attention, improving their memory of content and critical thinking skills, and tackling problem-based learning. The strategies discussed are useful to veter-

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an and novice educators, in both online and live classroom settings.

The sixth chapter is noteworthy and needs to be highlighted apart from the other two chapters. This chapter has the most information that would be beneficial to those who are new to teaching. Individuals, who are new to higher education, but have a K-12 or similar teaching background, will find this information a bit elementary; however, those who enter the education field should not skip this chapter.

Chapters 7 and 8

The final chapters, Incorporating Multimedia Effectively and Motivating Students, are two of the strongest because the context of the information is broad and can be easily applied to different learning environments. In the seventh chapter, Miller explains the importance of determining what role technology should have in a course, how students' learning styles need to be considered, and how to accommodate diversity among learners. One implication is that students may or may not have sensory limitations, and therefore may or may not be overloaded from too much technology.

In the eighth chapter, Miller discusses typical, but necessary, motivation topics, including procrastination, self-management skills, and growth mindset. She includes a section on gamification, in which students become players in game-like activities that promote learning. This topic is quickly gaining attention, though resources

are not widely available in every field. Hopefully, new research in this area will spur the onset of software development and branch out to a range of disciplines. The topics covered in these two chapters include information readers can relate to in one way or another. Regardless of teaching environment, Miller has framed the material so that it is applicable to various institutional settings.

Chapter 9

The closing chapter, Putting It All Together, is the icing on the cake. Miller lists cognitive principles with guiding questions, and then pairs them with *tools and techniques*, which are suggestions of how or what to implement to address specific issues. Following this section is the Cognitively Optimized Sample Course Plan, which is an author-created syllabus demonstrating how the principles would be applied in a course. In 16 pages, the aptly named chapter delivers a well-constructed syllabus that demonstrates an application of her guiding principles and practices based on the psychology of online teaching and learning.

Conclusion

New faculty members in higher education have wide-ranging requirements as part of their orientations or introductory seminars. Some universities even require the completion of a course prior to being extended a job offer. Miller's text would complement any orientation/introductory seminar because of

the wealth of information that is delivered, and the broad scope of topics that are covered. Moreover, Miller's claim in the second chapter regarding the low percentage of faculty who truly believe in online learning (unintentionally) underscores how her book would be a well-suited text for professional development. I would not recommend the entire book be studied by seasoned educators; however, specific chapters and/or portions of chapters could be very effective in swaying online educators' doubtful minds, and would breathe new life into *all* educators who are in search of implementing fresh, innovative techniques and strategies to their online teaching.

Dr. Amanda M. Butler is an elementary teacher in Bartow County, Georgia, and teaches graduate students and pre-service teachers in both face-to-face and online formats. She completed her B.S. in Elementary Education at Western Illinois University, M.S. in Curriculum, Instruction, and Assessment at Walden University, and Ed.D. in Reading Education at Nova Southeastern University. Her research interests include teacher preparation/course development, teacher–student relationships, poverty and literacy, and struggling readers.