ONLINE SCIENCE LEARNING: Best Practices and Technologies

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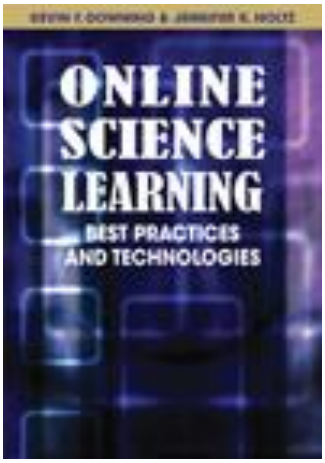
Reviewed by TOJDE



This essential publication is for all research and academic libraries, especially those institutions with online and distance education courses available in their science education programs. This book will also benefit audiences within the science education community of practice and others interested in STEM education, virtual schools, e-learning, m-learning, natural sciences, physical sciences, biological sciences, geosciences, online learning models, virtual laboratories, virtual field trips, cyberinfrastructure, neurological learning and the neuro-cognitive model. The continued growth in general studies and liberal arts and science programs online has led to a rise in the number of students whose science learning experiences are partially or exclusively online. character and quality of online science instruction.

ABOUT THE AUTHORS

Kevin F. DOWNING is an associate professor at DePaul University's college for adult learners, the School for New Learning. His research interests include the investigation of Miocene fossil mammals in the western United States and Pakistan, the character of small mammal diversity and paleoecology through volcanic disturbances and global cooling maxima, the record of stratigraphic and paleogeographic change during the Himalayan Orogeny, and the application of 3-D virtual laboratories for geological instruction in distance learning settings. He was one of the three faculty tasked with establishing the distance education (DE) program for adults at DePaul, is the author of several science course guides for the DE program, and regularly teaches online science courses. Dr. Downing has published widely in paleontology and stratigraphy, and has presented papers on the application of 3D learning objects to online geoscience education. Dr. Downing received BS degrees in astronomy and geology from the University of Illinois at Urbana, a Master of Science in Teaching degree in geology from the University of Florida, and a PhD in geoscience with emphasis in paleobiology from the University of Arizona.

Jennifer K. HOLTZ is an assistant professor at DePaul University's college for adult learners, the School for New Learning. Her areas of interest include the actual act of research and characteristics of researchers, how creativity affects both teaching and learning in the sciences and the implications of brain research to learning. Since joining DePaul University, she has authored multiple distance course guides in the sciences and teaches almost exclusively online, including the mentoring of distance students. Dr. Holtz has published widely in clinical sciences, clinical education, and in distance learning and assessment in the sciences. Her PhD is in adult, continuing and occupational education with emphasis in research education, from Kansas State University; her master's is in gerontology with clinical emphasis, from Wichita State University, and her bachelor's is in biology with emphasis in human biology, from Kansas Newman College (now Newman University).

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