



Criminalistics Section – 2011

A98 Online Laboratory Analysis Training: Feasible or Not?

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After attending this presentation, attendees will understand adult learning related to online courses, described as a theory called “andragogy.” The andragogy hypothesis states that online adult learning should focus more on the application and less on the content being taught. Strategies such as case studies, tabletop application, role-playing, simulations, group projects and discussions, and self-group evaluations are most useful for adult learning.

This presentation will impact the forensic science community by demonstrating strategies such as case studies, tabletop application, role- playing, simulations, group projects and discussions, and self-group evaluations are most useful for adult learning.

The University of Central Florida’s National Center for Forensic Science and Institute for Simulation has developed two online courses.

One online training course is well suited for first responders to a Chemical, Biological, Radioactive, Nuclear, and Explosives (CBRNE) incident. However, the online training for laboratory personnel completely with “no hands-on” training for the examination and identification of high explosives may be another story.

Malcolm Knowles emphasizes that adults are self-directed - they expect to take responsibility for decisions about their own learning and professional development. Adult learning courses delivered online must accommodate this fundamental aspect. Andragogy makes the following assumptions about the design of learning: (1) adults need to know why *they* need to learn something; (2) adults need to learn *experientially*; (3) adults approach learning as *problem-solving*; and, (4) adults learn best when the topic is of *immediate value*.

Professional development has become a critical challenge across all federal, state, and local agencies. Research has consistently demonstrated that training which provides only information and theory-based content results in little more than an increase of knowledge—*not skills*. Simulations and advanced learning technologies provide an effective tool for the preparation and maintenance of competencies required for responding to the various dynamic and critical situations; they also provide greater knowledge retention and expand/refine skills, resulting in overall improved job performance, employee satisfaction, and employee retention.

Online Courses, Andragogy, Adult Learners