

Keynote presentation

Assessing who is learning and how

J. Michael Spector

Learning Systems Institute
Florida State University

Most would agree that it is important to assess the progress of learners so as to help learners identify areas in which they might focus attention and to help instructors and designers identify areas in which they might consider refinements in future offerings. Likewise, most would probably agree that within the educational technology community there has been a trend to use new and innovative technologies to support ever more complex learning situations. Assessing the progress of learning with regard to simpler learning tasks using well established technologies is a problem that is well understood. However, when learning involves complex and ill-structured problem solving tasks (e.g., crisis management, environmental planning, engineering design, medical diagnosis, etc.) and when powerful technologies are available to support learning, it becomes a significant challenge to determine how individual learners are doing and whether particular instructional approaches, strategies and technologies are effective.

In this presentation, an assessment methodology relevant to this problem will be presented and discussed. The methodology is based on the notion that how an individual thinks about representative ill-structured problems will reflect relative levels of comprehension and competency. Annotated causal influence diagrams are used to capture problem conceptualizations and used to indicate progressive development of understanding based on previous conceptualizations and those of highly experienced problem solvers. A Web-based tool will be demonstrated along with preliminary results of using this methodology and the tool.

Bionotes

J. Michael Spector is Associate Director, Learning Systems Institute, and Professor, Instructional Systems, at Florida State University. He serves on the International Board of Standards for Training, Performance and Instruction (ibstpi) as Executive Vice President, and is Editor of ETR&D-Development.

Author contact details

J. Michael Spector, MC: 2540, Learning Systems Institute, Florida State University, Tallahassee, FL 32306, USA. Email: mspector@lsi.fsu.edu.

Copyright © 2006 Spector, J. M.

The author(s) assign to ascilite and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author(s) also grant a non-exclusive licence to ascilite to publish this document on the ascilite web site (including any mirror or archival sites that may be developed) and in electronic and printed form within the ascilite *Conference Proceedings*. Any other usage is prohibited without the express permission of the author(s). For the appropriate way of citing this article, please see the frontmatter of the *Conference Proceedings*.