

July 2011

Research and Innovation in Learning

Research Update

Center for Technology in Learning



National Science Teacher Association Includes Christopher Harris's Article in "Top 10 Reads" List

Harris's co-authored article on effectively enacting inquiry-based science instruction has been selected as a top ten worth reading!

Each year, the NSTA highlights 10 manuscripts identified as worth reading for its members. Among this year's 10 manuscripts is one by CTL's Christopher Harris and Devorah Rook, *Managing Inquiry-Based Science: Challenges in Enacting Complex Science Instruction in Elementary and Middle School Classrooms*. The article describes five interconnected management areas that need to be addressed when managing an inquiry-oriented K-8 science classroom. It introduces a pyramid model as a framework for thinking about these management areas and presents a brief review of what the research literature says about each area. The article proposes that enacting inquiry-based instruction requires a different kind of approach to classroom management that takes into account the close-knit relationship between management and instruction. This perspective recognizes the pervasive nature of managing the classroom for inquiry learning. Read the [complete article](#).

Design-Based Implementation Research Workshop

On June 9-10, SRI researchers in collaboration with the University of Michigan held a workshop at the Presidio of San Francisco on the topic of design-based implementation research. Design-based implementation is a model of research and development in which researchers and practitioners work collaboratively to develop and test innovations that foster alignment, coordination, and iterative refinement of supports for improving teaching and learning across multiple levels and settings of complex educational systems.

The workshop, funded by the National Science Foundation, brought together researchers, leaders in school districts and science centers, curriculum developers, and funding agency representatives. The purpose of the gathering was to build a network aimed at developing and improving methods of conducting design-based implementation research. A [wiki](#) open to anyone who wishes to join will serve as a gathering place for sharing ideas and connecting to others engaged in this work.

Check Out Our Latest Podcast on Digital Textbooks by Jeremy Roschelle

[New Visions for Interactive Learning](#)

Bulky and expensive paper textbooks are going away, and now is the time for publishers to take advantage of learning science research that can revolutionize teaching. More than sources of information, digital textbooks can become a place for students and teachers to interact. In this podcast, education researcher Jeremy Roschelle explains how SRI International is building dynamic textbooks that drive kids to learn more. Hear about initial tests of an innovative interactive digital textbook to enhance middle grades mathematics teachers' understanding of core concepts in proportionality and their understanding of ways that technology can be used to enhance instruction.

 [Listen now.](#)



Learn About How We Are Improving Community College Student Readiness



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Upcoming Event

CTL and the Lawrence Hall of Science are organizing a **Cyberlearning Summit**, with a format inspired by the TED series of talks, to share visions of cyberlearning across research communities and with policy makers. This summit will occur on November 29, 2011 in Washington, DC. Vision, strategy, and challenges for cyberlearning will also be captured in a community wiki that is currently under development. For more information, contact cyberlearning-info@sri.com.

The Latest News

American Education Research Association **Honors Barbara Means** for Outstanding Educational Technology Research

SRI Research Validates **Effective Math Education** Approach for Teaching Complex Concepts to Middle School Students

Two Las Vegas **High Schools Pilot NASA and SRI Climate Change Education Project**

Coming in our September Issue!

With an all-star team from CAST, SDSU, SFSU, and Inverness Research, we are designing a **Dynabook** for preservice teachers. This digital space engages teachers around videos of typical student struggles, provides social tools for teachers to share insights, incorporates principles of Universal Design for Learning, and enables authentic assessment of teacher learning.

SRI is helping develop a service called the **Federal Learning Registry**, a simple and inexpensive system for distributing information about learning resources and their use. Open and commercial education resources are migrating to many digital platforms as computing takes on new forms and as learning becomes more self-directed and reliant on digital and Internet-based systems.

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In this podcast, Louise Yarnall explains what SRI researchers are doing to improve community college student readiness. Expertise in the complementary areas of assessment and program development inform educators at the classroom and policy levels. These assessments provide greater insights to improve overall education.



Listen now. Or check out our [community college publications](#).

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