The Technology Integration and Evaluation (TIE) Research Lab:
Innovative Directions in Educational Research

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Abstract: This poster profiles the new $750,000 Technology Integration and Evaluation (TIE) Research Lab at the University of Victoria (Canada), which has been funded by the Canada Foundation for Innovation, British Columbia Knowledge Development Fund, Dell, Telus, Knowledge North, the University of Victoria, and SMART Technologies. The lab houses three high definition video conferencing codecs, a recording/streaming server, various SMART products, eight research workstations, mobile laptop labs and two experimental classrooms for deployment of the aforementioned equipment. This poster will showcase the current directions for research. Conversations surrounding opportunities for collaboration will be welcome.

Purpose of the Lab

The Technology Integration and Evaluation (TIE) Lab is a Canadian Foundation for Innovation funded research laboratory in the Faculty of Education at the University of Victoria. The purpose of the TIE lab is to strengthen research excellence regarding the appropriate use of networked and computer-mediated technologies for enhanced communication, learning, and motivation across educational, professional, and health sectors. The TIE lab provides state-of-the-art Infrastructure for systematically researching optimal e-learning conditions, tools, processes and products.

TIE Lab Facilities

The Technology Integration and Evaluation (TIE) Research Lab consists of 2000 sq. ft. which includes a full video conferencing room with recording and analysis capabilities, research space with eight work stations, and an experimental classroom for conducting research studies. Specific technologies include three high definition codecs (fixed, minimally portable, and highly portable ranging from 4-way to 8-way), three mobile laptop carts, smart boards, document cameras, senteo handhelds, airliner slate, Brigit conferencing, Elluminate, and various recording and analysis tools.

Importance of TIE Lab Research Activities

The TIE lab infrastructure supports contemporary calls for rigorous research in the area of e-learning as well as priorities set by the federal and provincial governments and the University of Victoria. The Government of
British Columbia Premier's Technology Council aims to make B.C. a leader in all areas of e-learning and recommends that the Government: 1) Continue research on e-learning in post-secondary education, and 2) Work with other provinces to research and evaluate e-learning strategies in post-secondary settings. An equally supported focus is the deployment and evaluation of technology in K-12 settings in order to support theory development and best practices.

Current projects include:

- the deployment and evaluation of various TIE Lab technologies in local K-12 school settings
- connecting preservice teachers and inservice teachers by supporting the execution of preservice course lesson plan activities that integrate technology in real K-12 classrooms
- the application of innovative analysis tools for researching video conferencing settings
- the evaluation of innovative global education initiatives and practices using video conferencing
- exploration of multi-access or choice learning in distributed e-learning courses using video conferencing
- investigation of self-, co-, and shared- regulation of learning within technological contexts

The author will present the TIE Lab facilities, discuss current projects, future directions, and invite participants and vendors to discuss partnerships on similar projects.