Chapter 19
Electronic Portfolio Encouraging Active and Reflective Learning:
A Case Study in Improving Academic Self-Regulation through Innovative Use of Educational Technologies

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EXECUTIVE SUMMARY

At the Centre for the Study of Learning and Performance (CSLP) in Montréal, the authors have developed, tested, and disseminated to schools in the Canadian provinces of Québec and Alberta, without charge, an Electronic Portfolio Encouraging Active and Reflective Learning (ePEARL). ePEARL is designed to be faithful to predominant models of self-regulated learning (SRL; e.g., Zimmerman, 2008; Zimmerman & Schunk, 2011), scaffolding and supporting learners and their educators from grade one through grade twelve and beyond. In a series of empirical studies, the

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authors have explored the impact of ePEARL on the development of students' SRL skills and their literacy skills, also researching classroom implementation fidelity and teacher professional development. The case study presented herein briefly explains the development of ePEARL, the authors' research program, and issues in the scalability and sustainability of knowledge tools in secondary schools. Using triangulated data sources from teachers and learners, this case study presents three vignettes and discusses the design and implementation of ePEARL in scholastic settings across the Canadian provinces of Québec and Alberta. The discussion case provides in-depth analysis of learners' portfolios in ePEARL, as well as teacher perceptions related to integration of electronic portfolios in classrooms.

ORGANIZATION BACKGROUND

Established 25 years ago at Concordia University in Montréal, the Centre for the Study of Learning and Performance (CSLP) consists of dozens of researchers and graduate students spanning nine institutions. The CSLP conducts solution-oriented research on learner success and the fulfillment of learning potential. Our overall focus is to develop evidenced-based tools and strategies that positively impact learners both within the K-11 sector, as well as in postsecondary education. The CSLP's work targets deliverable solutions regarding what can be done directly in the classroom, including novel applications of technology to basic learning processes.

The objective of provincial ministries of education in Canada has been to integrate technology across the curriculum with a special emphasis on the development of active and meaningful learning. In support of this objective, we have focused our partnership activities on the design, development, testing, and dissemination of evidence-based educational software —ABRACADABRA (early literacy), ISIS-21 (information literacy), and recently ELM (emergent mathematics)—all amalgamated within the Learning Toolkit (LTK), with an electronic portfolio entitled ePEARL serving as the hub.

As these tools have evolved, we have worked with our partners on researching their effectiveness by conducting rigorous, groundbreaking research establishing the effectiveness of the LTK. We have also worked with our partners on dissemination and worked with them in creating professional development materials to support teachers and students in the use of our tools. Our support includes face-to face professional development, embedded multimedia, just-in-time scaffolding, and online forums. Indeed this aspect of knowledge mobilization—scalability and sustainability—has become a joint research focus.