THE LEARNING TOOLKIT 2011

The Learning Toolkit (LTK) is a suite of state-of-the-art software tools developed, tested and disseminated without charge to educators by the Centre for the Study of Learning and Performance (CSLP) in collaboration with our partners at LEARN. The tools in the LTK promote the development of essential educational competencies, including literacy, inquiry, self-regulation and shortly, numeracy. They are powerful and flexible tools, each with a unique focus and strength, which both supplement and support classroom instruction. To see demonstration videos and to explore the tools please go to http://doe.concordia.ca/cslp/ under Knowledge Mobilization. That's a great way to learn more.

CSLP • CEAP
Centre for the Study of Learning and Performance
Centre d'études sur l'apprentissage et la performance

ABRACADABRA

ABRACADABRA promotes the teaching and learning of English reading and writing skills among youngsters, especially those at risk of school failure.

It consists of 32 instructional activities and 17 stories that combine to create hundreds of challenging and engaging tasks for learners at a broad range of difficulty levels.

In ABRA, choices abound in terms of the story genre selected, the literacy sub skill to be learned, and even the difficulty level of an activity. These choices afford great flexibility to teachers and learners; the game-like interactive activities insure a high degree of engagement, turning the hard work of learning how to read into an enjoyable time of learning success. Teachers may focus on whole-class instructional activities, small group work, or individual remedial or enrichment activities. They may elect to focus on contextualizing activities by emphasizing the ABRA stories first since there is no prescribed order for engaging in activities.

The big news for 2011

is the addition of a large number of instructional materials, job aids, and the expansion of the teacher's manual to increase support for ABRA, especially when it is used in combination with Level 1 of ePEARL, our portfolio tool that encourages students' self-regulation of learning. Using the two tools together should help facilitate student reading comprehension and writing even further. We are also very pleased and excited that work has begun on the French adaptation of ABRA. Monique Brodeur, Dean of Education at UQAM, along with colleagues there, are working with the CSLP's Design and Development team on this exciting adaptation. A French prototype of ABRA will be released at the end of 2012 or early in 2013. In the interim, three of the ABRA books have been translated into French and are available from within PERLE.

La petite poule rousse

ABRACADABRA is based on the best available research on how children learn to read and the best available research on using technology for learning. Research is the bedrock on which ABRA, and our other tools, were designed and developed. ABRA has also been the subject of extensive efforts at validation over the years. Consequently, it is fair to claim that ABRA is both evidence-based and evidence-proven.

ABRACADABRA

There are more than a dozen studies exploring the impacts of ABRA on various facets of children's reading skills.

Research on ABRACADABRA: Best Evidence on Impacts

Reading Skill	k (# of comparisons)	Average Effect Size	Percentile Advantage
Alphabetics	21	+0.396	15.39
Fluency	19	+0.187	7.42
Comprehension	11	+0.340	13.31
Overall	51	+0.306	12.02

Some of these are modest studies while others are ambitious large-scale and longitudinal investigations complete with random assignment of classes to experimental and control conditions. We thought it would be useful to take the best of these studies, either quasi-experiments or true experiments, and summarize the findings. As you can see from the table, the positive effects of ABRA hold for all types of reading skills and measures even under stringent conditions of experimentation compared to other forms of reading instruction. Furthermore, the effects of ABRA are not trivial in size; ABRA produced noticeable gains in learning compared to traditional means of reading instruction.

The results of the two large experiments, one in Canada and one in Australia, are still being carefully analyzed. Among other things, we are exploring length and quality of student exposure to ABRA where we expect that high quality implementations will reveal even larger effects of using ABRA than those we have reported here.

We thank the teachers and students in the research schools in the Sir Wilfrid Laurier, English Montreal and Ontario school boards.

We are very pleased to announce that ABRA has won two awards: The CNIE-RCIE Award of Merit in the *Innovation in Overall Use of Technology for Learning and Teaching/innovation dans l'utilisation de technologies d'apprentissage et d'enseignement category* and the AECT Design and Development Outstanding Practice Award.

LTK Training Institutes

Through the generous funding of the Max Bell Foundation, the CSLP continues to hold training institutes to develop expertise in the use of our tools. Our first Vancouver two-day institute in the fall was a huge success with attendees from numerous British Columbia school districts. Another advanced LTK training day unfolded in the Quebec English school boards during Fall 2010, as did a Nova Scotia Institute in early 2011.

Our first ever **International LTK Institute** will be held in Montreal, May 18-20, 2011. All are welcome to attend however space is limited. Details may be found on the CSLP website under Spotlight.
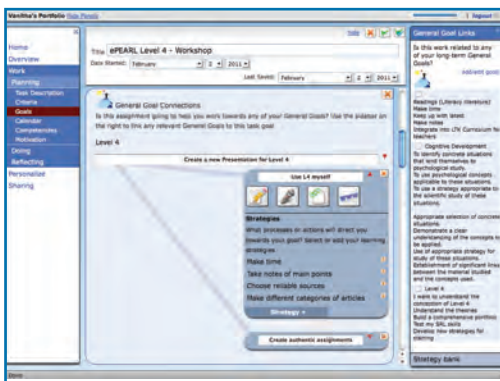
ePEARL

Our web-based, bilingual (French, English) electronic portfolio tool is designed to scaffold and support student self-regulation, including planning, doing, and reflecting, as a key learning strategy for knowledge acquisition. It also serves as a multimedia container for student work whether that work takes the form of text, audio, video, images, or some combination thereof.

The existing levels of sophistication make ePEARL age-appropriate for students from early elementary school through secondary school. The subject of two longitudinal, pan-Canadian studies, ePEARL is the only electronic portfolio in the world that has documented learning gains as well as changes in students' learning habits.

ePEARL features in Levels 1-3 include: personalizing the portfolio; setting general or task-specific goals; creating new work via a text editor and/or audio recorder or linking to work created elsewhere; reflecting on work; sharing work; obtaining feedback from teachers, peers and parents; evaluating personal motivation; editing work and saving revisions as a new version; and sending work to a presentation portfolio for archiving and exporting.

ePEARL also contains a rich collection of video vignettes to assist students and teachers to understand and use both the tool and the SRL processes it is designed to strengthen. ePEARL is intended for use in all school subjects.

Our team is currently working with seven Quebec English school boards, along with LEARN to study how ePEARL and ABRA can be used together in the development of literacy skills in Cycle 1 beginning readers. A variety of classroom resources have been designed to help support the teachers' use of the two tools, and these will be posted on http://grover.concordia.ca/epearl/resources over the summer, following their field testing this spring.

New Initiative

MATHKNOW, a numeracy tool, is currently in the initial stages of design and development. It will be modeled after ABRA and we hope to have a working prototype ready sometime in 2012.

A long time in the making, Level 4 of ePEARL is finally here.

Designed for pre-service and in-service teachers, as well as older secondary students and postsecondary students, Level 4 offers dramatically new levels of sophistication and control.

Rather than make superficial modifications to the 'look-and-feel' of Level 3, we chose to recreate the environment in a way that would tackle the particular opportunities and challenges presented by older students and the tasks they face. This allowed us to investigate the more complex and nuanced aspects of Zimmerman's self-regulation model.

For example, adult users should be more aware than children of the variety of elements influencing their learning experience, or can more easily grasp them once they are made aware, and are therefore more equipped to correctly assess their influence.

ePEARL

Furthermore, adult students face topics and learning tasks that may greatly influence their intrinsic interest and performance. Tasks may also differ at this level; post-secondary students are often required to carry out tasks that are more complex, flexibly structured and lengthier than younger students. Tasks like these require finer planning and more precise monitoring, as well as more sophisticated reflection and adaptive inferences. They also demand that motivation be sustained for a longer period of time, as the final reward of achieving the goal may be substantially delayed. These are some of the reasons we incorporated new features into Level 4 including visual representations, sidebar design, and drill down.

iScore... I've got the music in me!

For the last couple of years, we've been working with our partners at Queen's University and The Royal Conservatory of Music on the use of ePEARL in arts education. With the generous support of major funding from the Canada Interactive Fund, we are embarking together on a major adaptation of ePEARL for use by studio piano teachers and their students right across North America. This specialized version of ePEARL, called iSCORE is scheduled for release at the end of 2011. iSCORE will include a host of new features, such as: audio and video annotations; embedded professional development; a shared calendar; digital music creation; text messaging and chat features; and customized interfaces.

ISIS-21

ISIS-21 is designed to develop lifelong inquiry strategies by helping teachers and students refine their abilities to undertake successfully the meaningful and critical exploration of important topics.

The key phases of inquiry supported by ISIS-21 include developing and refining a key question; identifying information from a multiplicity of sources; evaluating the information for quality, credibility and scope; and critically synthesizing the relevant, best quality information.

The latest addition to ISIS-21 is an interactive game designed to help students learn more about the steps in the inquiry process. This game is currently being piloted with a handful of EMSB and LBPSB teachers and their students as term-long projects are being completed during the Winter term.

Learning ToolKit

To learn more about the tools in the Learning Toolkit go to http://doe.concordia.ca/cslp/LTK