Annual Report

Centre for the Study of Learning and Performance

Centre d'études sur l'apprentissage et la performance

2011-2012

Director's MESSAGE

Phil Abrami

Fifty years ago this past September 12, United States President John F. Kennedy delivered a speech at Rice Stadium about the decision to strive to land a man on the moon and return him safely to earth. In that now famous speech, Kennedy said:

"We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too."

Shaping the lives of children can be as challenging and certainly as important as space exploration. Researchers, educators, and administrators working together to bring evidence-based tools and techniques into classrooms on a broad scale is one way to affect positively children's potential and help maximize their potential not only as students but eventually as citizens. But only if we accept the challenge of educational change.

Systematic change in education is hard but it is also important and so we must embrace it together. We must be prepared to understand that evidence-based practice does not mean relying on just any evidence but the best evidence. Any research is not necessarily good research. We must learn what constitutes rigorous research and what needs to be viewed cautiously and with skepticism. We must also be prepared to accept that our own beliefs about what works in classrooms can be supplanted by other approaches identified by systematic and rigorous research. In other words, we need to use the best evidence not just to confirm our practices, but also to improve them.

And we must accept that improving the quality of teaching and learning is not really about adding to regular routines but instead fundamentally changing those routines. We do not, for example, want to speak of adding technology to our educational practice but instead we should work toward integrating technology into our practice.

And finally, researchers must embrace the importance of knowledge mobilization as completely as they embrace the importance of knowledge generation. The exchange between the academy and practitioners must become a forethought and not an afterthought. In the end, we must choose educational improvement not because it is easy but because it is hard… and important.

Annual REPORT

MESSAGE du directeur

Le 12 septembre dernier marquait les cinquante ans du discours prononcé au stade de l'université Rice par le président des États-Unis John F. Kennedy à propos de la décision de chercher à faire atterrir un Homme sur la lune, puis de le ramener en toute sécurité sur Terre. Dans ce discours qui est maintenant passé à la postérité, Kennedy a dit :

« Nous choisissons d'aller sur la lune. Nous choisissons d'aller sur la Lune au cours de cette décennie, et d'accomplir d'autres choses encore, non pas parce que c'est facile, mais justement parce que c'est difficile, car ce but servira à organiser et à donner le meilleur de nos énergies et de nos savoir-faire, parce que c'est le défi que nous sommes prêt à relever, celui que nous refusons de remettre à plus tard, celui que nous avons la ferme intention de gagner, et les autres également. »

Façonner la vie des enfants est potentiellement aussi difficile et certainement aussi important que l'exploration spatiale. Des chercheurs, des éducateurs et des administrateurs qui travaillent ensemble afin que des techniques et des outils fondés sur des données probantes soient utilisés dans les classes, à grande échelle, constitue un moyen d'influer positivement sur le potentiel des enfants et de les aider à maximiser leur potentiel non seulement en tant qu'élèves, mais aussi éventuellement en tant que citoyens. Mais pour ce faire, nous devons accepter de relever le défi de la mise en œuvre de changements en éducation.

Apporter des changements systématiques en éducation est certes difficile, mais cela n'en demeure pas moins important et nous devons nous atteler à cette tâche ensemble. Nous devons être prêts à comprendre qu'une pratique fondée sur les données probantes ne signifie pas seulement se contenter de n'importe quelles données, mais plutôt chercher à utiliser les meilleurs résultats issus de la recherche. Toutes les recherches ne se valent pas. Nous devons apprendre à discerner ce qui constitue une recherche rigoureuse de ce que nous devrions considérer avec prudence et scepticisme. Nous devons aussi être prêts à accepter que nos propres croyances à propos de ce qui fonctionne dans les salles de classe peuvent être supplantées par d'autres approches identifiées par des recherches systématiques et rigoureuses. En d'autres mots, nous devons utiliser les meilleures données probantes non pas dans le seul but de corroborer nos pratiques, mais aussi afin de les améliorer.

Et nous devons accepter que l'amélioration de la qualité de l'enseignement et de l'apprentissage ne passe pas vraiment par de simples ajouts aux routines existantes, mais plutôt par un changement fondamental à ces routines. Nous ne souhaitons pas, par exemple, discuter de l'ajout d'éléments issus de la technologie à notre pratique éducative; nous devrions plutôt travailler à intégrer les technologies à notre pratique.

Phil Abrami

This Year's Annual REPORT

We decided to take a different approach this year in preparing the Annual Report. Rather than summarize the activities in each of the CSLP's theme areas-- Inquiry Teaching and Learning, Educational Technology, Fluency and Cognitive Efficiency, and Language and Literacy--, we chose to highlight the accomplishments of some of our members, along with some new and exciting projects.

Kim McDONOUGH

Congratulations to Kim McDonough who obtained a Canada Research Chair in Applied Linguistics (Tier 2). Her research interests are situated in the theme area of Language and Literacy, more specifically second language acquisition. The focus of her research agenda is to test theoretical claims about the benefits of interaction for second language (L2) development. In Kim's most recent research she has explored whether structural priming (the tendency to produce a structure encountered in the recent discourse) positively impacts L2 learners' linguistic development. Kim has undertaken both lab-based and classroom-based research that investigates the role of interaction in L2 learning. In her classroom-based studies, she addresses topics that can help L2 teachers identify efficient and effective instructional practices, such as whether small group activities promote learning, how to respond to learners' errors, and how communicative language teaching can be adopted in foreign language contexts. Kim's classroom-based research has involved a variety of instructional contexts, including the teaching of Korean, Thai, Spanish, and English in both English Second Language (US and Canada) and English Foreign Language settings (Thailand, Korea and Japan).

SECOND LANGUAGE ACQUISITION

LEARNING SCIENCES

Vivek VENKATESH

Vivek Venkatesh is Associate Dean, Academic Programs and Development at the School of Graduate Studies and Assistant Professor in the Department of Education at Concordia University. Since joining Concordia as a full-time faculty member in 2008, Vivek has secured, either as principal investigator, co-principal investigator, or co-investigator, more than $1million in funding at provincial, federal and international levels. His research publications traverse the areas of learning sciences, the impact of social media on online learning, and the integration of information and communication technologies in university settings. He has delivered a dozen invited addresses and keynote speeches at international conferences and meetings in Canada, Sweden, France, China and Japan.

As Chair of the provincial Sous-Comité Sur La Pédagogie Et Les Technologies De L'information Et De La Communication, which functions under the auspices of the Conférences Des Recteurs Et Des Principaux Des Universités Du Québec, Vivek co-led a province-wide investigation in 2012 into how university professors and learners' perceptions of course effectiveness are influenced by their use of different kinds of computer technologies, both within and outside of classrooms. Vivek and his colleagues' research has shown how policies towards technology integration need to take into account not only the university populations' use of new social media technologies available in the age of Web 2.0, but also key elements of instructional design such as how to deliver material in an engaging and interesting fashion.

Since 2010, Vivek has also chaired the Canadian Advisory Committee to the International Organisation for Standardisation which works on standards related to learning services outside of formal education. Together with colleagues from 10 different countries, Vivek's committee has published a standard for training organizations (ISO 29990) and is in the process of finalizing a standard for language learning service providers.

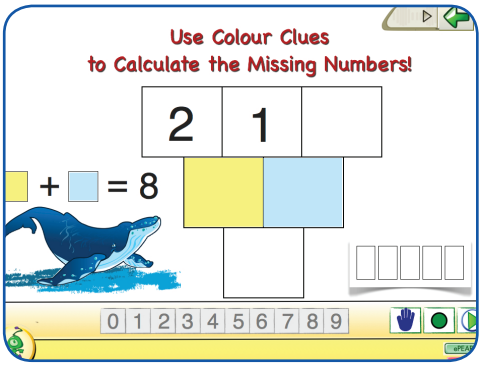
TECHNOLOGY INTEGRATION

Some NEW PROJECTS

The CSLP, with the aid of a grant from Quebec's ministère du Développement économique, de l'Innovation et de l'Exportation (MDEIE), and in partnership with LEARN and several school boards, will spend the next two and a half years in the first stages of development of an interactive, bilingual numeracy tool (Orienter la réussite des mathématiques émergentes – ORME; Emergent Literacy in

ORME / ELM

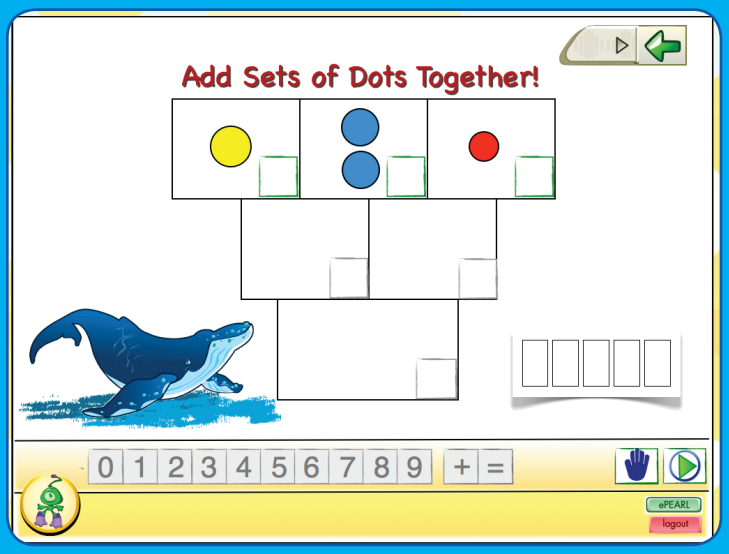
Mathematics – ELM) for elementary students, their teachers and their parents. ORME/ELM is intended to complement the already existing literacy tools in the CSLP's Learning ToolKit (specifically ePEARL and ABRACADABRA), and like the rest of the LTK will be freely available via the internet through installations on school board servers. We note that numeracy does not consist of making sure that everyone knows Calculus, but rather that everyone feels comfortable in using simple mathematical tools in complex everyday situations.

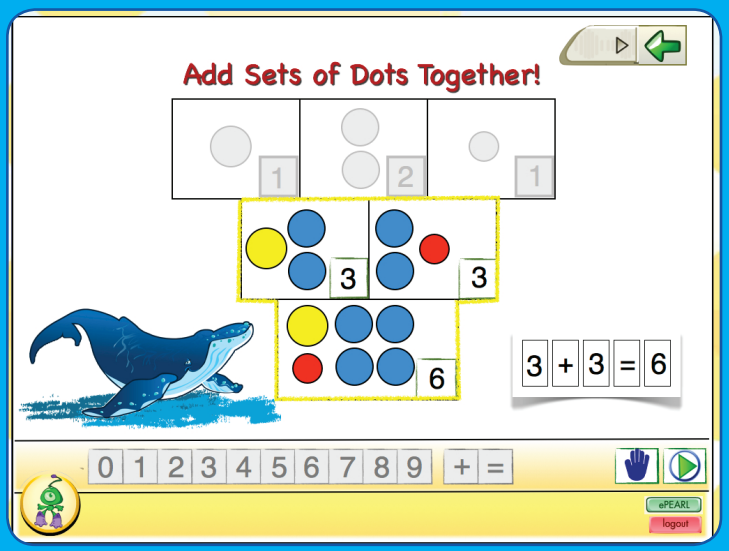


NUMERACY TOOL

BASIC MATHEMATICAL CONCEPTS

The first portion of this tool, to be developed under this MDE-IE grant, will be specifically aimed at Cycle 1 Year 1 students, targeting developing the understanding of basic mathematical concepts such as whole numbers, the operations of addition and subtraction, as well as developing student fluency in the use of numbers and operations. A major goal for students using ORME/ELM will be the development of their understanding of a wide variety of contexts within which one can use numbers and operations, solving problems and puzzles. A second major goal is to provide appropriate challenges and successes for students at all incoming levels of knowledge and ability. Hopefully this will reduce the development of "math anxiety", which otherwise contributes to limiting student choices of careers and even forces students to drop out of school. Also, it should help high ability students to retain interest in mathematics, perhaps stimulating an increase in the number and quality of students eventually choosing a career in areas of Science, Technology, Engineering or Mathematics, an area where Quebec and Canada are falling behind other OECD members.





An important part of this tool will be the generation of support materials for both teachers and parents. In particular, the tool will include ideas/lesson plans for teachers wishing to help students see mathematics as part of music, language, social studies, art class, physical education, etc., reinforced with activities within the software. In this manner the usefulness of mathematics will become self-evident to children, and the goal of numeracy for all will be achieved.

NUMBER OPERATORS

Improving Literacy in KENYA

Nearly 90 per cent of the world's 127 million illiterate youth live in South Asia (65 million) and sub-Saharan Africa (47 million). In the least developed countries one quarter of young men aged 15 to 24 and one third of young women are illiterate. In Kenya, international statistics show literacy rates are well below the standards of developed countries. One reason is that there is no special training for lower primary teachers who are expected to teach beginning reading. Our efforts to both improve literacy and to increase effective technology use in schools are important and align with the Kenyan Government Vision 2030 and the Kenyan Ministry of Education's expressed interests and directives.

This past year, the CSLP/CEAP and the Aga Khan Academies collaboratively worked on Phase I of a multi-year project to learn about the feasibility and to measure the effectiveness of using ABRACADABRA, our early literacy software, with emerging readers and their teachers in Mombasa public primary schools, where the need to improve children's literacy is great. Over three months, six grade 2 teachers and their students visited the computer lab at the Aga Khan Academy in Mombasa weekly and used the software. Lab sessions were supplemented with classroom extension activities. Student achievement data were collected and compared to those collected from parallel classes in

the same schools which did not use the software. Weekly planning meetings, coupled with regular observations and videotaping were used to document the implementation. Lessons learned will be used to inform the teachers in subsequent phases of the project as we learn more about how to effectively integrate use of ABRA across Kenyan classrooms.

EMERGING READERS

Other HIGHLIGHTS of the YEAR

Roger Azevedo

In August 2011, Roger Azevedo was awarded a Canada Research Chair in Metacognition and Advanced Learning Technologies.

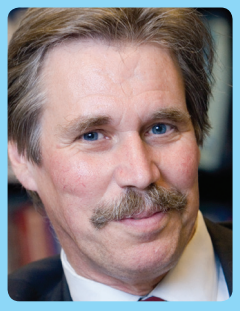
CANADA RESEARCH CHAIR

Norm Segalowitz

In November, 2011, Norman Segalowitz received the Senior Scholar Award for Outstanding achievement recognized by Concordia's Faculty of Arts and Science.

In December, 2011, the Modern Language Association of America awarded its thirty-first Kenneth W. Mildenberger Prize to Norman Segalowitz, of Concordia University, for his book Cognitive Bases of Second Language Fluency, published by Routledge. The prize is awarded for an outstanding work in the fields of language, culture, literacy, and literature with strong application to the teaching of languages other than English.

KENNETH W. MILDENBERGER PRIZE



Richard Schmid

On February 3, 2012, Richard Schmid discusses a 40-year analysis of technology use in schools on CTV News.

40-YEAR ANALYSIS OF TECHNOLOGY

Rena Upitis, Phil Abrami, Angela Elster

In March, 2012, Rena Upitis (principal investigator from Queen's University), Phil Abrami (co-applicant from the CSLP), and Angela Elster (co-applicant from The Royal Conservatory) learned they had been awarded a $2, 500, 000.00 multi-year partnership grant from SSHRC and CFI to develop, research, and disseminate iSCORE, music portfolio software for studio teachers and their students.

SSHRC AND CFI PARTNERSHIP GRANT

PRODUCTIVITY

For the period April 1, 2011 to March 31, 2012, the CSLP/CEAP had the following productivity:

Funding:

The total number of grants and contracts awarded to the CSLP's 34 full faculty members is 85.

The estimated total value held for the 2011-2012 period (i.e. one year of multi-year grants) is over $4,000,000.

PUBLICATIONS:	
Journal Articles & Manuscripts	117
Books/ Chapters/ Proceedings	64
Other	8
Total Publications	**189**

OTHER DISSEMINATION ACTIVITIES:	
Presentations and Seminars	124
Training and Instruction	11
Technology Based Tools and Other Transfer Activities	32
Total Dissemination	**167**

TRAINING OF STUDENTS:	
M.A. Theses and Internships	86
PhD supervision	45
Research Assistants	46
Post Docs	3
Total Students	**180**

Please refer to the CSLP/CEAP Annual Report: Part 2 for a full breakdown of grants, publications, presentations and workshops, and supervision of students. Available on the CSLP's website:

http://education.concordia.ca/CSLP

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