



The LTK Newsletter

Spring 2015



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

Adaptation française d'ABRACADABRA

Depuis que les premières activités et livres numériques, en anglais, ont été mis en ligne en 2003, ABRACADABRA est en constante évolution. Des recherches ont permis de vérifier son efficacité auprès d'élèves anglophones à travers le monde. Afin que les élèves francophones puissent également profiter d'ABRACADABRA, un groupe de chercheurs de l'Université du Québec à Montréal (UQAM), spécialisés en didactique de la lecture et de l'écriture, a amorcé en 2010 le développement d'une version en langue française. La programmation de cette version en français est assurée par l'équipe du CSLP.

Puisque le français et l'anglais sont des langues qui ont chacune leurs particularités, tout un processus d'adaptation a dû être mis en œuvre.

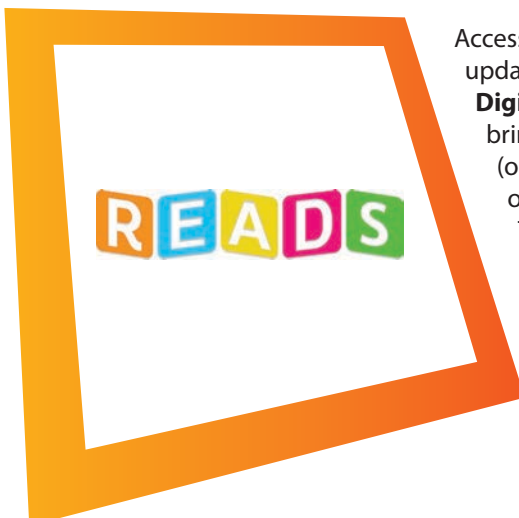
La version en français d'ABRACADABRA n'est donc pas une simple traduction, mais bien une véritable adaptation de la version en anglais. En effet, chacune des activités et chacun des livres de cette version ont été analysés et ajustés par les chercheurs, en fonction des caractéristiques du système d'écriture de la langue française. Les chercheurs ont également pris en considération les connaissances scientifiques les plus probantes relatives à la réussite des premiers apprentissages en littératie. Des recherches visant à évaluer l'impact d'ABRACADABRA sur la réussite des premiers apprentissages en littératie, en français, seront réalisées au cours des prochaines années en collaboration avec les différents partenaires du milieu scolaire impliqués dans le projet.



L'adaptation des livres et des activités en français est maintenant complétée et la programmation sera terminée sous peu. La version en français d'ABRACADABRA sera donc rendue disponible dès l'automne 2015.



Accessible from the LTK+ Lobby page, the latest update to our **Repository of Ebooks And Digital Stories** will contain 300 new books bringing the total up to over 500 free stories (or 770 when considering multiple languages of the same book) from 13 countries. This includes the seven stories from Kenyan schoolchildren, over 100 from the South African Dancing Pencils project and more than 100 public domain folktales from World of Tales.



LTK+

We are very pleased to announce the release of the **LTK+** coming in the Fall 2015.

This release will include access to two new tools: the new **French Adaptation of ABRACADABRA** and **ELM: Emerging Literacy in Mathematics**.

There will also be an update to **READS: Repository of Ebooks And Digital Stories** and other exciting updates! Be sure to watch for our release notice in August 2015.

Send us an email at LTKHelp@education.concordia.ca if you would like to be put on our email distribution list.

Emerging Numeracy

We are very pleased to announce that ELM is out of beta testing and the software will be released in the fall 2015. ELM's main focus is on the theme Number Concept, which has six core ideas: Count, Compare, Add, Subtract, Decompose, and Place Value. In addition, a number of offline lesson plans for further themes will be offered. Keeping with the feature of gaining an animal "friend" for successfully completing an online activity, teachers will be able to provide friends for these offline lessons as well. We have also made some interface improvements, such as redesigning the theme hosts.

During the past year, we have tried ELM out in 12 classrooms. Half were experimental classrooms that taught using ELM while the remaining six were control classrooms that had access to ELM only after the intervention was completed. The pilot was conducted in Anglophone and Francophone school boards in Quebec. 234 grade-one students took part in this pilot study. The data collected from this study led to changes to some existing activities and will influence the development of new activities. Overall, the use of ELM showed promise in increasing students' mathematics abilities and reducing their mathematics anxiety.

We have obtained funding from the **Max Bell Foundation** that will allow us to continue development on the software and expand our Teacher and Parent modules.



For further information on the ELM project, including our Teacher and Parent modules, consult our new promotional website at:

<http://www.concordia.ca/research/learning-performance/tools/learning-toolkit/elm.html>

Research



In the fall of 2014 with funding from the Ministère de l'Économie, de l'Innovation et des Exportations, we performed a field test of ELM software and pedagogical materials in grade 1 classrooms in Quebec. Over six and a half weeks 6 experimental teachers taught mathematics to their 114 students with the aid of ELM, while 6 control teachers relied on their usual approach in teaching their 120 students.

Classroom observations and trace data that ELM generated indicated that the implementation of ELM varied in many aspects. First, students used ELM between 21 and 32 minutes per week. Second, the amount of teacher control over ELM activities differed. Some teachers allowed students to choose ELM activities and/or progress through them at whatever rate students preferred, whereas other teachers had students perform the activity that teachers had chosen for the day before doing any other activity. Finally, the classroom technology the teachers relied on included computer lab, computer centres, and smart boards.

The data we collected favoured students in the ELM group. Specifically ELM students demonstrated significantly higher scores than their control peers in mathematical operations such as adding, subtracting, pattern recognition, etc. In addition, experimental students reported less boredom and anxiety in learning mathematics than students in control classes.

These promising results open the door to further research on ELM. We are excited to start our full-fledged study of ELM effectiveness this coming fall with the release of the LTK+.

Numératie émergente

C'est avec grande joie que nous vous annonçons que la phase de test bêta de notre logiciel ORME est terminée et que ce dernier sera lancé à l'automne 2015. Le thème d'ORME est le concept de nombre, qui est abordé au moyen de six idées principales : dénombrer, comparer, additionner, soustraire, décomposer, et valeur de position. En outre, plusieurs plans de leçon hors ligne pour d'autres thèmes seront offerts. Afin de reproduire la fonction du logiciel grâce à laquelle les élèves obtiennent un nouvel « ami » du règne animal après avoir complété avec succès une activité en ligne, les enseignants pourront aussi remettre des amis aux élèves qui complètent ces leçons hors ligne. Nous avons également apporté des améliorations à l'interface. Entre autres, les hôtes des différents thèmes ont été redessinés.

Au cours de la dernière année, nous avons mis ORME à l'essai dans 12 salles de classe. La moitié des classes expérimentales utilisaient ORME pour enseigner, tandis que les six classes de contrôle n'avaient accès à ORME qu'une fois que l'intervention était terminée. L'étude pilote a été réalisée dans des commissions scolaires anglophones et francophones du Québec. 234 élèves de première année ont pris part à cette étude. Les données recueillies dans le cadre de cette étude ont mené à la modification de certaines des activités existantes et influenceront la conception de nouvelles activités. Dans l'ensemble, l'utilisation d'ORME semble prometteuse pour accroître les habiletés mathématiques des élèves et diminuer l'anxiété des mathématiques.

Nous avons obtenu du financement de la part de la **Fondation Max Bell** qui nous permet de poursuivre le développement du logiciel et de bonifier les modules pour les enseignants et les parents.



Pour plus d'informations sur le projet ORME, y compris nos modules pour les enseignants et les parents, veuillez consulter notre nouveau site Web promotionnel :

<http://www.concordia.ca/research/learning-performance/tools/learning-toolkit/elm.html>





Inquiry Process

A number of exciting ISIS-21 upgrades will be available in the Fall release of the LTK+ including a **French version** and a **Flexible Mode**. This mode has eight steps instead of 12 and contains all of the features that are found in the Guided Mode though only the core features of the tool are automatically displayed. This mode is ideal for individuals who have acquired some Information Literacy skills but require development of a specific skill. Or it may be used with younger learners as a means of introducing them to a specific Information Literacy skill, such as how to prepare a search strategy for a search engine.



Check out our latest bilingual **Teacher Resources page** at: <http://grover.concordia.ca/resources/isis21/teacher/en/>
It provides access to a myriad of classroom resources, along with a newly released Teacher Guide.



Research

To learn more about the ISIS-21 classroom implementation, in 2014-2015 we conducted a small-scale study in two grade 5 classrooms from the English Montreal School Board. For about twelve weeks, students used ISIS-21 to complete their research project on Natural Disasters. In groups of three or four, students searched online sources to create content for their Natural Disasters webpage that they designed.

We were very pleased to learn that the results we obtained this past year were in sync with the results obtained in the previous years. Students' information literacy scores on **planning** a search strategy, **searching**, and **using** information improved from pre-test to post-test as measured by modified version of TRAILS (<http://www.trails-9.org/>). The

results also showed positive changes in a number of student self-regulation skills including planning, reflection, self-efficacy, and self-worth and that in the absence of explicit instruction on self-regulation. Hence ISIS-21 holds positive potential in contributing to the 21-century skills essential to driving knowledge economies.

From the teacher's perspective, the most valuable aspect of using ISIS-21 was exposing students to the diversity of sources and making them apply meaningfully the criteria for selecting pertinent and high-quality sources to create their own knowledge on the topic of interest to them.

One teacher admitted that her students' perception of the usefulness of ISIS-21

and therefore their intention to use it in future were more positive than she expected.

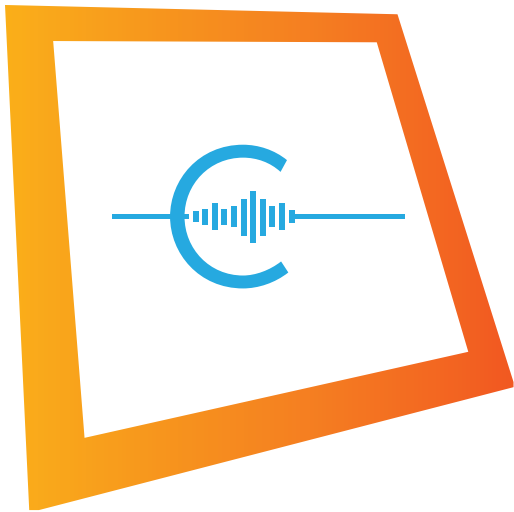
"I completely misread the students [...], most of them felt that it was useful and that they would go and use it on their own. They seem to walk away with more than I thought they did. And quite a few of them said "oh, can we use it for another project?" and now they know that they can use certain modules from ISIS-21. Also they take ownership over it."

Based on these promising results, we are looking forward to testing ISIS-21 in more classrooms to evaluate its impact on gains in students' knowledge and skills. We hope to begin in September 2015.



Come visit our new promotional Learning Toolkit websites at <http://www.concordia.ca/ltk>

Cadenza & Notemaker



We are excited to be working in partnership with Queen's University and The Royal Conservatory of Music (RCM) to produce a new tool for music teachers and students. Based on theories of Self-Regulated Learning and intended as digital dictation book and practice helper, **Cadenza** will be a robust but easy-to-use website that enables teachers and students to set goals and tasks at each lesson. Between lessons, students will be able to review the tasks, record their practice sessions, reflect on their achievements, and determine whether they are progressing towards their goals. Teachers will be able to check in, view, and annotate videos of the practice sessions and support their students more closely before the next lesson.

The tool is aimed at students ages 8-12 but is sophisticated enough to be used by adult learners. Built-in categories, such as Technique, Repertoire, Ear-Training, Sight-Reading, and others, can be assigned, thus helping ensure students are exposed to a wide range of musical experiences in their lessons.

We're anticipating that the tool will increase communication between teachers and students as well as provide a convenient, online way to create practice plans for more efficient and effective development of practice habits and musical skills.



Also in partnership with the Queen's University and the Royal Conservatory of Music, the CSLP is developing its first App: **Notemaker**. Working closely with music teachers, we are creating a simple video and audio annotator tool that will allow users to record, share, and comment on each other's video and audio content at precise moments in the performance.

The App will be available for iOS 8 devices (iPhone, iPad, iPad Mini and iPod generation 5 and up) in December 2015!



For more information on the **Learning Toolkit**, please contact Anne Wade at wada@education.concordia.ca

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