



ABRACADABRA:

Evidence-based and Evidence-proven Educational Software

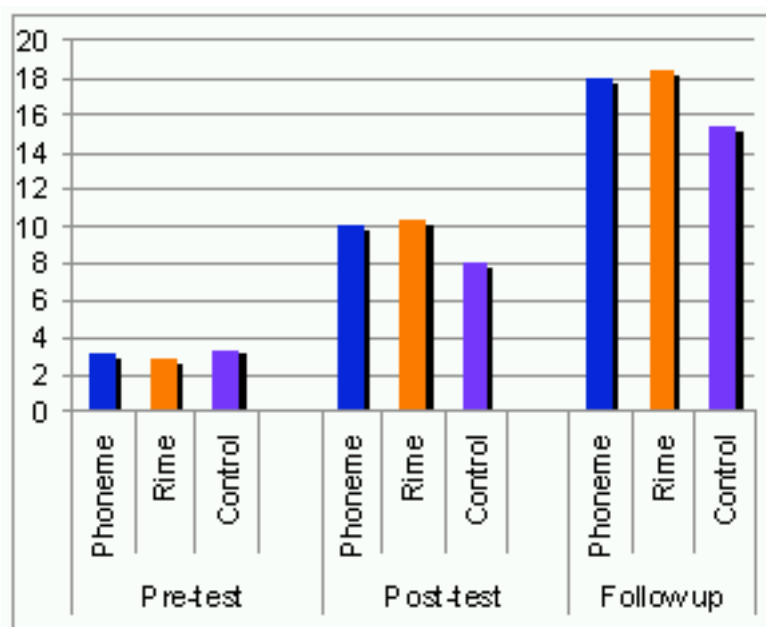
The first prototype of ABRACADABRA (A Balanced Reading Approach for CAnadians Designed to Achieve Best Results for All) was released eight years ago. Evidence from provincial, national, and international research documented the importance of literacy skills for school success and later on in life. Evidence also shows that about twenty-five percent of school children fail to achieve adequate literacy skills. Since its conception, ABRACADABRA (ABRA) was envisioned to be a free, web-based multimedia literacy resource designed especially to help emergent or struggling readers develop their literacy skills in an engaging, pedagogically sound manner. Additionally, this tool was based on sound educational research e.g., National Reading Panel (NRP), 2000) and feedback from teachers, students, researchers and language arts specialists. The NRP, for example, outlines four major skill areas—alphabeticity, fluency, comprehension and writing—and 32 subskills that all successful readers have. ABRA is designed to provide support for students and their teachers in each of these areas. Thus, there is a strong evidence base for the design of ABRA.

In addition, the design of ABRA is validated and refined based on annual research projects. Each year a pilot study, focus group, or a full research project has been undertaken. From small-scale local research, the quality and scope of investigations has increased annually. ABRA research is now pan-Canadian in scope and there are trials now underway with aboriginal students in the Northern Territory of Australia. The latest studies meet the highest standards for design, measurement, and scope. And our findings are being published in the best journals, such as the *Journal of Educational Psychology*.

Each child was pre-tested with a battery of standardised measures, then was randomly assigned to a control, intervention A or intervention B group, and finally was post-tested some time later. The intervention groups did similar activities in ABRA but differed in the Alphabeticity tasks. Each small group met with a trained CSLP facilitator for 20 minutes a day four times a week. The control classrooms continued with their typical English Language Arts lessons. Our findings showed that the ABRA children gained in decoding, word reading, processing speed and text comprehension. A similarly designed kindergarten study conducted in 2006 showed

these children using ABRA obtaining better scores in letter-sound knowledge, blending words, and word reading.

In early 2007 our focus grew to include learning about how teachers view and use technology. Teachers from Quebec were given a one-day training session and encouraged to practise using ABRA at home to increase their familiarity. In the classrooms, trained CSLP research assistants provided teachers and students with technical support only, as the teachers were to be the pedagogical guides. Teachers were expected to use ABRA twice a week. Based on their feedback, the prototype for ABRA's teacher zone was developed and still is being added to.



In 2007- 2008, we began a 3-year Pan-Canadian randomized control trial (RCT) in 26 classrooms in Montreal, Alberta and Ontario with over 400 students participating. We found significant beneficial effects on children's letter-sound knowledge, word reading and phonological awareness. However, we found that teachers did not use ABRA fully as they used mainly the Alphabetic section. Because of this, our 2008-2009 teacher training focused on making teachers aware of how to teach the higher order literacy skills using ABRA. As this year's sample size is over 800 students and 53 classrooms, we eagerly await the results of this study.