SUMMARY OF RESEARCH
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.

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

More than a dozen validation studies, both in Canada and internationally, have been conducted to explore the impact of ABRA on various facets of children’s reading. Some of these are modest studies while others are large-scale and longitudinal investigations complete with random assignment of classes to ABRA and control groups.

The table below summarizes the findings of the best nine studies including quasi-experiments and true experiments (Abrami, Borokhovski & Lysenko, 2015).

<table>
<thead>
<tr>
<th>Reading Skill</th>
<th>k (# of comparisons)</th>
<th>Average Effect Size</th>
<th>Percentile Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Awareness</td>
<td>20</td>
<td>+0.32</td>
<td>13</td>
</tr>
<tr>
<td>Phonics</td>
<td>19</td>
<td>+0.19</td>
<td>8</td>
</tr>
<tr>
<td>Fluency</td>
<td>6</td>
<td>+0.08</td>
<td>3</td>
</tr>
<tr>
<td>Vocabulary Knowledge</td>
<td>15</td>
<td>+0.14</td>
<td>6</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>6</td>
<td>+0.07</td>
<td>3</td>
</tr>
<tr>
<td>Listening Comprehension</td>
<td>6</td>
<td>+0.38</td>
<td>15</td>
</tr>
<tr>
<td>Overall (random effects model non-independent weighted overall average effect)</td>
<td>73</td>
<td>+0.17</td>
<td>7</td>
</tr>
</tbody>
</table>

*Average effect sizes are used as a simple way to quantify the difference between ABRA and control groups on the six reading-related skills. The effect sizes show that on average students’ reading improvement in ABRA classes exceeded that of students from non-ABRA control classes. As well, all the average effects were stable, meaning they were consistent across age groups and the geographic locations where studies took place.*

We currently have research projects on the impact of ABRA unfolding in Hong Kong and Kenya [http://www.concordia.ca/research/learning-performance/tools/learning-toolkit.html#international](http://www.concordia.ca/research/learning-performance/tools/learning-toolkit.html#international)
ABRACADABRA SCHOLARLY WORKS

JOURNAL ARTICLES


Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).


ABRACADABRA in the news


Campbell, Kristina (Jan 29th, 2010). Abracadabra: Screen time can be part of teaching kids to read. Vancouver Observer. p.?


Savage, R. S.,(2009, April 21). Interviewed for the CTV evening show on literacy issues and effective intervention (April 8th 2009) and by CBC Radio 1 lunchtime show (and phone-in) on effective reading intervention.


Dawes, M. (Spring, 2009). “Magical desk” provides scientific grounding for early literacy development [Interview with R. Savage], Clarity, 6. 4-8.