

MindPlay: A Teaching by Science Program Review

Program Description:

MindPlay describes their program as follows: “Appropriate for all ages, our online reading program is self-paced and easy for students to use. It provides assessment-driven instruction and repeated opportunities for students to achieve mastery. Aligned to the Science of Reading, our lessons focus on the skills needed to become a proficient and skilled reader. All instruction is based on Orton-Gillingham’s structured literacy approach with content created by experts in speech and reading instruction. Plus, not only are we standards-aligned, all lessons are delivered by certified speech pathologists – right on the screen!”

MindPlay uses adaptive technology and frequent formative assessment, to teach students: phonemic awareness, phonics, vocabulary, fluency, and comprehension. It also includes: personalized reading modules, fluency builder, and an expansive library.

Analysis Methodology

Teaching by Science was sent a copy of all MindPlay research, via a representative of the company. In total the company sent me 20 papers and studies. Teaching by Science excluded all studies that were not either experimental or quasi-experimental. After exclusions, only 2 studies remained. To evaluate the results of each study, Cohen’s d effect sizes were calculated. Then a weighted mean of both study results was calculated using the inverted variance. The range of likely results was estimated, based on 95% confidence intervals. Lastly a moderator analysis was conducted to better explain how study results changed according to assessment measurements.

Studies Included:

Kloose 2019:

This study used an RCT design. The study had a sample size of 314 grade 2 and 4 core instruction students. It used the MVRC assessment. The study was of ESSA level 2 quality. It looked at both alternative treatment and business-as-usual comparisons. The study was 9 weeks long and showed a mean effect size of 0.30.

Schneider 2015

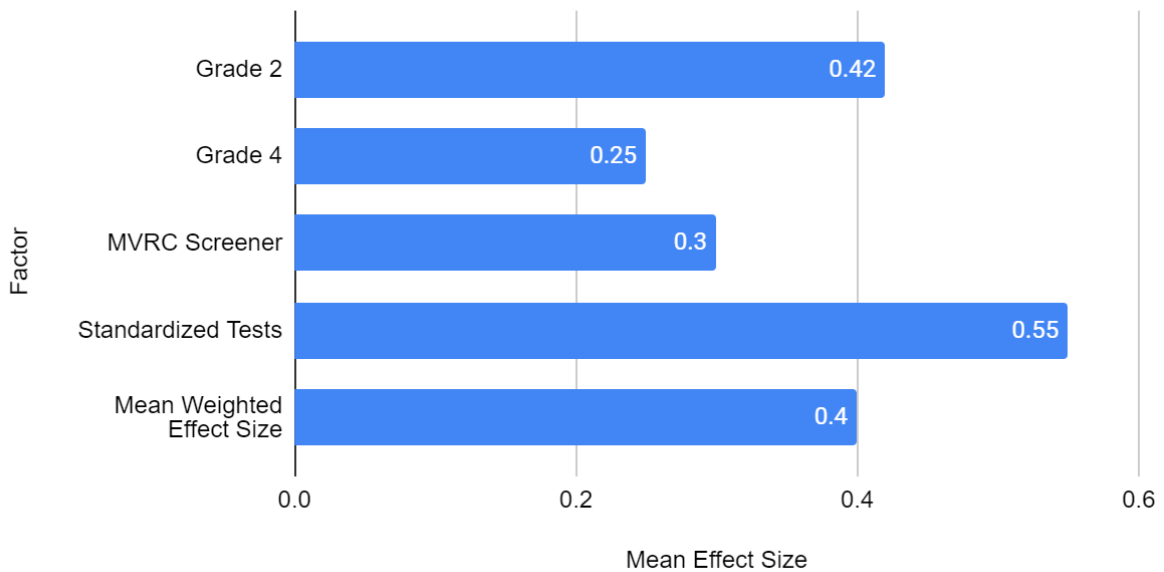
This study used a quasi-experimental design. It had a sample of 209 grade 2 readers. The study looked at core instruction using a TOWER and Woodcock standardized tests. It lasted 1 year and compared MindPlay instruction to business-as-usual instruction. This study was of ESSA tier 2 quality and reported a mean effect size of 0.55.

Results:

The average weighted mean effect size of MindPlay was .40 [-1.16, 2.01]. The raw unweighted mean was .42. To better model how these effects changed according to assessment, the following moderator analysis was conducted.

MindPlay Research Results

www.teachingbyscience.com



Final Grade: A-

Two experimental studies showed a mean effect size of .40 or higher on standardized tests.

Qualitative Grade: 8/10

The program contains the following essential types of instruction: Explicit, Individualized, phonemic awareness, phonics, vocabulary, fluency, and comprehension.

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References:

Schneider, D., Chambers, C., Mather, N., Bauschatz, R., Bauer, M & Doan, L. (2016) The Effects of an ICT-Based Reading Intervention on Students' Achievement in Grade Two, *Reading Psychology*, 37:5, 793-831, DOI: 10.1080/02702711.2015.1111963

Kloos, H., Sliemers, S., Cartwright, M., Mano, Q & Stage, S. (2019). MindPlay Virtual Reading Coach: Does It Affect Reading Fluency in Elementary School? *Frontiers in Education*. <https://www.frontiersin.org/articles/10.3389/feduc.2019.00067/full>