

Watermelonworks: An Intervention Case Study
Published: 2022/09/26
Written by: Nathaniel Hansford and Joshua King
Reviewed by: Kathryn Garforth

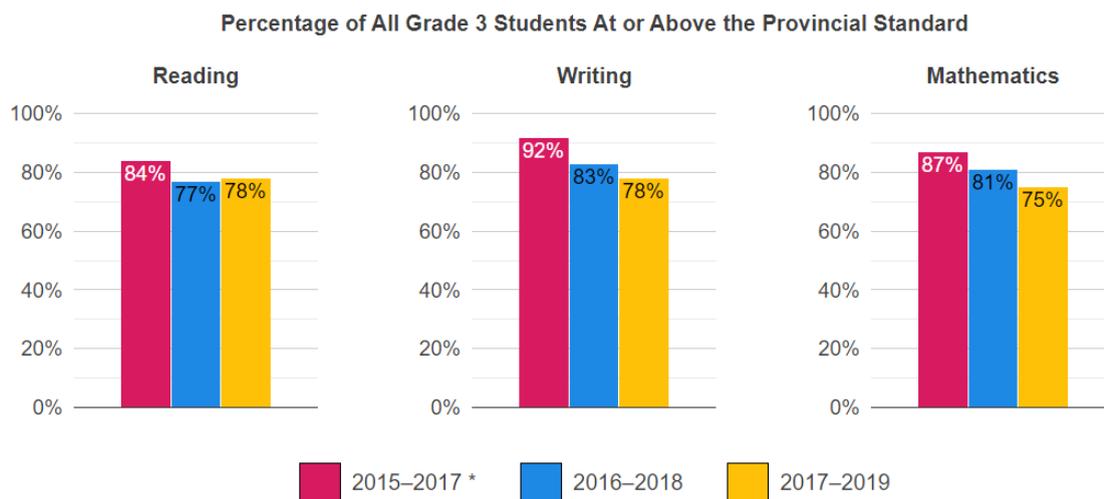
Abstract:

Watermelonworks™ is a patented program, designed by the French Linguist Jenny Gray. The program teaches the code of the French language by focusing on developing strong student French phonemic, phonological, and morphological knowledge. Watermelonworks products are to be used in a classroom, individually and for groups as a multi-tiered system approach. The tools increase engagement via game-based play. Learners are actively engaging in multisensory memory retention thereby reducing cognitive load. The cards and books are a rapid assessment to determine the PA strengths of learners with immediate feedback as to areas that require attention. It has been long known within the scientific community that the best way to teach students English is by starting with phonics. However, there has been comparatively far less research done on the topic of French phonics instruction for English speaking students.

In order to help establish the efficacy of both structured French Language instruction for FSL students and for the Watermelonworks™ program, a case study was conducted, based on the results of a French Immersion school in Simcoe County.

Study Setting:

The case study was conducted in Forest Hill, the dual track, french immersion school in Simcoe County Ontario. Ontario, is a mostly English speaking area of Canada and most students would be learning French as a second language. However, in French immersion programs the majority of instruction is conducted in only French. The school is located in Midhurst Ontario, which is a small rural community. According to the EQAO states 19% of all students were identified as having special learning needs. The majority of students in the school are born in Canada. In general the school appears to be a high performance school, with 78% of students meeting or exceeding grade level expectations on the grade 3 EQAO test. Before the intervention, 49% of students in the study were reading in French at grade level and 39% of students were considered at risk.



Methodology:

This case study was conducted secondarily based on student level data, collected by the instructor and then analyzed secondarily. Students within the study were instructed in small

groups by an intervention teacher. Results were measured using the GB+ French Literacy assessment. The GB+, measures: “Which reading strategies a student is using or not using; a student’s ability to read for meaning; a student’s ability to self-monitor; a student’s knowledge of print conventions; a student’s rate of learning; and a student’s level of independence.” Post-test scores were compared to pre-test scores, to calculate within design Hedge’s g effect sizes. All effect sizes were independently calculated by a second author for the purposes of verification. In the event of a discrepancy both authors recalculated their effect sizes and discussed until reaching consensus. Generally speaking effect sizes within reading education research can be interpreted based on the following benchmarks:

Less than .20 = negligible

.20 to .39 = small

.40-.69 = moderate

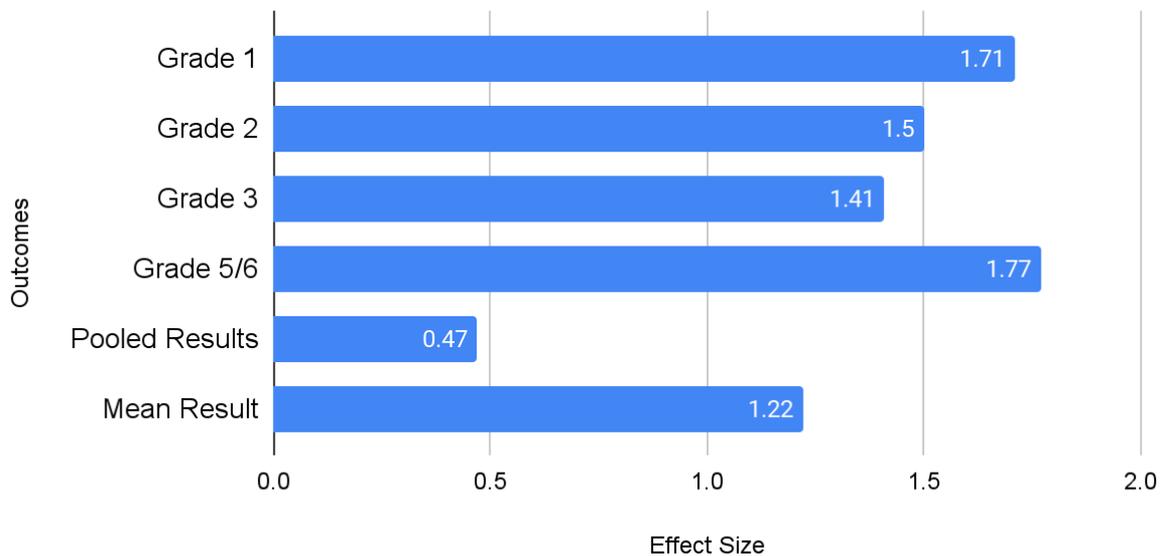
.70 - .99 = high

Results:

Grade	Pre Test (SD)	N	Post Test (SD)	N	ES
1	0 (0)	6	2.33 (1.36)	6	1.71
2	2 (1.41)	8	5.75 (3.15)	9	1.5
3	7.25 (3.61)	8	12.2 (3.27)	5	1.41
5/6	16.37 (1.37)	4	20.75 (3.20)	4	1.77
Mixed	5.75 (6.04)	25	8.86 (6.97)	22	.47

Watermelonworks French Phonics Results

Forest Hills Case Study



By the end of this case study the number of students at grade level went from 49% to 70% and the number of at risk readers dropped from 39% to 15% in just 9 weeks. Moreover, the average student improved their French reading level by 44%. These statistics were analyzed with a Hedge's g calculation in order to measure the magnitude of this effect, to better determine the efficacy of Watermelonworks™ and structured literacy for FSL instruction. This analysis produced a mean effect of 1.22, which is a high effect. This analysis was limited in its reliability by a lack of control group. However, Watermelonworks™ as part of its ongoing commitment to research on this issue, will be trying to conduct an experimental study in the fall of 2022.

Written by Nathaniel Hansford and Joshua King
Last Edited 2022-09-01

This case study was verified and reviewed by the third party research firm of Garforth Education.