# Waterford Early Reading Program

## Overview

Waterford Early Reading is an educational program that uses a variety of technologies to create personalized instruction through games, songs, stories, and other engaging activities to help children learn to read. Students use the adaptive curriculum software that allows them to move at their own pace through carefully scaffolded lessons. The software provides actionable reports that teachers can use to monitor progress, develop lessons, and track growth. This program offers classroom lessons as well as take-home materials in addition to the computer software. There is also a free mobile app that can be downloaded to experience select materials from anywhere.

## Target Population Preschool and K-2

- Preschool
- Grades K-2
- RtI
- ELL
- At-Risk
- Gifted

## Instruction Strands Levels 1-3

- **Phonics**
  **L1:** • spell name • recognize A-Z and a-z • learn 10 letter sounds, 20 sight words, read 10 leveled readers. **L2:** • common spellings for all 44 sounds • learn 130 sight words • read 63 leveled readers **L3:** • more complex spelling patterns • 55 sight words • 30 leveled readers • practice automatic word recognition • build reading speed to 90 wpm

- **Comprehension and Vocabulary**
  **L1:** • read along and understand 26 nursery rhymes • read along and understand 26 alliterative books • learn 255 target vocabulary words **L2:** • read along and understand 16 traditional tales • read along and understand 22 books • learn 72 target vocabulary words **L3:** • read along with and understand 54 books • learn 262 target vocabulary words

- **Language Concepts**
  **L1:** • understand print – left-to right, letters, pictures, words • develop oral language skills – colors, shapes, numbers, sizes **L2:** • learn basic grammar concepts – sentences, capitalization, and punctuation **L3:** • learn parts of speech – nouns, verbs, and adjectives • learn parts of words – prefixes and suffixes

- **Phonological Awareness** (developed independent of student level)
  • identify rhyming words • segment words into syllables • isolate initial and final sounds • blending • segment words into individual sounds • substitute sounds in words to make a new word

## Lesson Format
- Introduction
- Pre-Assessment
- Instruction
- Practice
- Instruction
- Book
- Practice
- Post Assessment

## Suggested Usage
- 15 minutes daily Kindergarten (2,700 min or 45 hrs/year)
- 30 minutes daily grades 1-3 (5,400 mins or 90 hrs/year)

## Reports
- Easy-to-read progress reports are available as well as in-depth analysis of individual student progress
- Individual and Class
- Instructional Strand
- Learning Objective

## Evidence of Effectiveness

### What Works Clearinghouse (WWC) 2007 - Institute of Education Sciences (ies)

One study of Waterford Early Reading Program met WWC evidence standards with reservations. This study included 70 Kindergarten students from 6 different Ohio schools. WWC considers the extent of evidence of Waterford Reading Program to be:

- **small** for alphabetics
- **small** for comprehension
- no studies with or without reservations addressed fluency or general reading achievement

### Supplemental/Intervention Curriculum Review - University of Oregon (2004)

The University of Oregon Curriculum Review rates supplemental and intervention reading programs according to specific criterion for each reading component. This report rates Waterford Early Reading Program meeting criteria in percentages for the following components in grades K-2

- Phonemic Awareness   K = 94%
  - 1st Grade = 100%
- Phonics   K = 31%
  - 1st Grade = 92%
  - 2nd Grade = 81%
- Fluency   1st Grade = 85%
  - 2nd Grade = 94%

## Division of Accountability and Department of Research and Evaluation (2008)

This evaluation was completed for the Prince George County Public Schools Title I Programs.

- Implementation: 2007-2008 school year
- 1,215 students in Kindergarten and 1st grade
- Target usage: 45 hours/school year
- Average usage: varied between 0 - 39.7 hours/school year

Comparison Study: Treatment group- Waterford Early Reading Program (WERP) users and Control group- non WERP users. The Comprehensive Reading/Language Arts Assessment (CR/LA was used to compare pre and post treatment scores. The Developing Reading Assessment (DRA) was also used pre and post treatment.

### Results: Percentage Meeting End-of-year benchmarks on CR/LA by Study Group

| Reading Skill | WERP (n= 1,109) | Non WERP (n= 1,247) | t-Value Probability |
|---|---|---|---|
| Letter Identification | 82 | 78 | 2.51; $p<0.01$ |
| Word Recognition | 74 | 72 | 1.05; $p<0.02$ |
| Emerging Rdg Behavior | 54 | 60 | 2.95; $p<0.01$ |
| Dictation Sounds | 64 | 71 | 3.80; $p<0.01$ |
| Dictation Words | 74 | 78 | 2.37; $p<0.02$ |

*In summary, no universal foundational reading skill benefit of the WERP was demonstrated for treatment group students. One statistically significant gain was observed with regard to letter identification foundational skill development. Students in the WERP group identifying *fewer* letters in the fall were able to identify more letters than the non WERP group of peers by spring.

### WERP Students' Fall 2007 to Spring 2008 Text Reading Progress – DRA*

| | | Spring 2008 Text Reading Level | | | |
|---|---|---|---|---|---|
| | | Below (n %) | On (n %) | Above (n %) | Row Total (n %) |
| Fall 2007 DRA Text Reading Level | Below Gr Level | 179 (15.9) | 474 (42.2) | 470 (41.9) | 1,123 (100.0) |
| | On Gr Level | 0 | 5 (9.6) | 47 (90.4) | 52 (100>0) |
| | Above Gr Level | 0 | 0 | 24 (100.0) | 24 (100.0) |

### Non- WERP Students' Fall 2007 to Spring 2008 Text Reading Progress – DRA*

| | | Spring 2008 Text Reading Level | | | |
|---|---|---|---|---|---|
| | | Below (n %) | On (n %) | Above (n %) | Row Total (n %) |
| Fall 2007 DRA Text Reading Level | Below Gr Level | 186 (14.6) | 622 (48.8) | 467 (36.6) | 1,275 (100.0) |
| | On Gr Level | 0 | 10 (13.9) | 62 (86.1) | 72 (100.0) |
| | Above Gr Level | 0 | 1 (7.7) | 12 (92.3) | 13 (100.0) |

*In summary, no text reading level benefit was demonstrated for students in the WERP treatment group. Data disaggregated by grade also show no text reading level benefit for students in the WERP treatment group.

## Evaluation and Training Institute – USOE Early Intervention Report FY 2014

- Implementation: 2013-2014

- 4,236  program students K-2 (data taken from 876 program students K-2)
- Outcome measures for difficulty level scores from first and final session for each literacy strand. (No actual scores were provided for pre- post- comparison in this report)
    - Results suggest that students growth scores increased as students spent more time on the software.
    - Total time on software was statistically significant across all 5 literacy strands
    - This relationship was strongest for Comprehension and Vocabulary and Phonics for which scores increased by approximately 19 points for every hour on the software

- This report looks for measurable growth from beginning of year (BOY) DIBELS Next scores and End of Year (EOY) scores for treatment students compared to non-program (control) students. The report does not disaggregate DIBELS Next scores for Waterford Early Reading and the 4 other interactive software programs used statewide.

## Summary

The Waterford Early Reading Program is a computer software program designed to develop foundational reading skills for Kindergarten–grade 2. With a focus on early literacy instructional strands, the program places students on their instructional level and then allows them to navigate through components and levels as dictated by ongoing evaluations as they engage in activities. Teachers are able to monitor this process through records and reports generated by the program for each student and/or their whole class. A teacher whiteboard tool is available to bring this curriculum to the whole class. Teachers are also encouraged to use the print material provided in the program for supplemental lessons and independent practice. These learning pages can also be sent home for reinforcement. Waterford recommends just 15 minutes a day for students to fully benefit from this instructional software.

Reports have been published that indicate some benefits for program use. Some case studies are available that report success with this software for disadvantaged students and children entering Kindergarten without experiences rich in oral language development.