

# What Works Clearinghouse



## Read Naturally<sup>1</sup>

### Program description<sup>2</sup>

*Read Naturally* is designed to improve reading fluency using a combination of books, audiotapes, and computer software. According to the developer’s web site, this program has three main strategies: repeated reading of text for developing oral reading fluency, teacher modeling of story reading, and systematic monitoring of student progress by the students themselves and by teachers. Students work at a reading level appropriate for

their achievement level, progress through the program at their own rate, and work, for the most part, on an independent basis. The program has two versions. In one, students use audiocassettes or CDs in conjunction with hard-copy reading materials. In the second version students use the *Read Naturally* computer program alone. The *Read Naturally* program is designed to increase time spent reading.

### Research

One study of *Read Naturally* met the What Works Clearinghouse (WWC) evidence standards and one study met WWC evidence standards with reservations. The two studies included 106 students from first and second grades in two elementary schools in

Arizona and Georgia.<sup>3</sup> The WWC considers the extent of evidence for *Read Naturally* to be small for fluency and comprehension. No studies that met WWC evidence standards with or without reservations addressed alphabets or general reading achievement.

### Effectiveness

The *Read Naturally* program was found to have no discernible effects on fluency and reading comprehension.

	Alphabets	Fluency	Comprehension	General reading achievement
Rating of effectiveness	na	No discernible effects	No discernible effects	na
Improvement index <sup>4</sup>	na	Average: +8 percentile points Range: +6 to +9 percentile points	Average: +2 percentile points Range: -3 to +9 percentile points	na

na = not applicable

1. The study on which this report is based excluded some components of the *Read Naturally* program. The WWC includes all studies that meet WWC evidence standards and considers variations in level of implementation as inherent in field research. Studies with zero implementation are excluded from a WWC review of an intervention.
2. The descriptive information for this program was obtained from publicly available sources: the program’s web site ([www.readnaturally.com](http://www.readnaturally.com), retrieved April 2007). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.
3. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.
4. These numbers show the average and range of improvement indices for all findings across studies.

## Additional program information<sup>1</sup>

### Developer and contact

Developed by Candyce Ihnot, *Read Naturally* is distributed by Read Naturally, 750 S. Plaza Dr. #100, Saint Paul, MN 55120. Email: [info@readnaturally.com](mailto:info@readnaturally.com). Web: [www.readnaturally.com](http://www.readnaturally.com). Telephone: (651) 425-4058 or (800) 788-4085. Fax: (651) 452-9204.

### Scope of use

The program was first published in 1991. According to the developer, it has been implemented with special education, Title I, and English language learner students throughout the United States.

### Teaching

The *Read Naturally* teacher's manual includes the rationale for the program, descriptions of materials needed to implement the program, instructions for implementing the program, and sample lesson plans for introducing the program to students. As part of the intervention, students read along with an audio recording

of passages to build word recognition and accuracy. During the repeated reading phase, students do one minute practice readings to build their mastery of the passage. Once students feel they can achieve their reading speed goal, they alert the teacher. The teacher then conducts a "pass timing" in which four criteria are evaluated (student reaches goal rate, student makes three or fewer errors, passage is read with appropriate phrasing, and comprehension questions are answered correctly).

### Cost

Individual *Read Naturally* materials range in price. The audio-cassettes or audio CDs for each level cost \$110 and \$115, respectively. The computer program costs \$99 per level for one computer and \$299 per level for a school network version. Additional materials, including timers, posters, glossaries, crossword puzzles, assessment materials, and training are available at additional cost. The specific needs of the students will determine the materials needed and the cost of the implementation.

## Research

Fourteen studies reviewed by the WWC investigated the effects of *Read Naturally*. One study (Hancock, 2002) was a randomized controlled trial that met WWC evidence standards. Another study (Mesa, 2004) was a quasi-experimental design that met WWC evidence standards with reservations. The remaining 12 studies did not meet WWC evidence screens.

### Met evidence standards

Hancock (2002) conducted a randomized controlled trial of second-grade students from one school in Arizona. The students were randomly assigned to intervention and comparison groups using block randomization procedures. Students were pretested, matched with a similarly performing peer, and then randomly assigned to a study condition. In all, 48 students were in the

intervention group and 46 students were in the comparison group.

### Met evidence standards with reservations

Mesa (2004) is a quasi-experimental study of first-graders from one public elementary school in Georgia. Teachers identified 12 first-grade students in a single classroom who already knew how to decode certain word patterns. Students were pretested, matched, and divided into two similar groups based on pretest scores, with six students in each group.

### Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or moderate to large (see the [What Works Clearinghouse](#)

## Research (continued)

[Extent of Evidence Categorization Scheme](#)). The extent of evidence takes into account the number of studies and the total sample size across the studies that met WWC evidence standards with or without reservations.<sup>5</sup>

## Effectiveness Findings

The WWC review of interventions for beginning reading addresses student outcomes in four domains: alphabets, fluency, comprehension, and general reading achievement.<sup>6</sup> The studies included in this report cover two domains: fluency and comprehension. The findings below present the authors' estimates and WWC-calculated estimates of the size and the statistical significance of the effects of *Read Naturally* on students.<sup>7</sup>

**Fluency.** Two studies reported findings in the fluency domain. The Hancock (2002) study findings for this domain are based on students' performance on the Curriculum Based Measure: Test of Reading Fluency. The study author did not find a statistically significant effect of *Read Naturally* on the fluency measure, and the effect was not large enough to be considered substantively important according to WWC criteria (that is, an effect size of at least 0.25).

The Mesa (2004) study findings for this domain are based on students' performance on the test of Oral Reading Fluency. The study author presented group mean difference between the *Read Naturally* group and the comparison group on the fluency measure, but did not evaluate its statistical significance. The

The WWC considers the extent of evidence for *Read Naturally* to be small for fluency and comprehension. No studies that met WWC evidence standards with or without reservations addressed alphabets or general reading achievement.

WWC found that the effect was not statistically significant nor large enough to be considered substantively important.

**Comprehension.** The Hancock (2002) study findings for the comprehension domain are based on the performance of *Read Naturally* students and comparison students on the Peabody Picture Vocabulary Test (PPVT), the Word Use Fluency Test, and the Curriculum Based Measure: Cloze Probe. The study authors did not find statistically significant effects of *Read Naturally* on any of these three measures. The average effect size was not large enough to be considered substantively important according to the WWC criteria.

## Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as: positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the [WWC Intervention Rating Scheme](#)).

5. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept, external validity, such as the students' demographics and the types of settings in which studies took place, are not taken into account for the categorization.
6. For definitions of the domains, see the [Beginning Reading Protocol](#).
7. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the [WWC Tutorial on Mismatch](#). See the [WWC Intervention Rating Scheme](#) for the formulas the WWC used to calculate the statistical significance. In the case of *Read Naturally*, corrections for multiple comparisons were needed.

## The WWC found *Read Naturally* to have no discernible effects on fluency and reading comprehension

### Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study as well as an average improvement index across studies (see [Technical Details of WWC-Conducted Computations](#)). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analyses. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.

The average improvement index for fluency is +8 percentile points with a range of +6 to +9 percentile points across findings. The average improvement index for reading comprehension is +2 percentile points in the one study, with a range of -3 to +9 percentile points across findings.

### Summary

The WWC reviewed 14 studies on *Read Naturally*.<sup>8</sup> One study met WWC standards and another met WWC standards with reservations; the others did not meet WWC evidence screens. Based on these two studies, the WWC found no discernible effects in the fluency and reading comprehension domains. The evidence presented in this report may change as new research emerges.

## References

### Met WWC standards

Hancock, C. M. (2002). Accelerating reading trajectories: The effects of dynamic research-based instruction. *Dissertation Abstracts International*, 63(06), 2139A. (UMI No. 3055690)

### Met WWC standards with reservations

Mesa, C. L. (2004). *Effect of Read Naturally software on reading fluency and comprehension*. Unpublished master's thesis, Piedmont College, Demorest, GA.

#### **Additional source:**

Read Naturally. (n.d.). *Case 3: First graders, South Forsyth County, Ga*. Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case3.htm>

### Did not meet WWC evidence screens

Denton, C. A., Fletcher, J. M., Anthony, J. L., & Francis, D. J. (2006). An evaluation of intensive intervention for students with persistent reading difficulties. *Journal of Learning Disabilities*, 39(5), 447-466.<sup>9</sup>

Heistad, D. (n.d.). *A Minneapolis study of the effects of Read Naturally on fluency and reading comprehension: A supplemental service intervention*. Minnesota: Minneapolis Public Schools.<sup>10</sup>

Read Naturally. (2005). *Read Naturally: Rationale & research*. Retrieved from <http://www.readnaturally.com/pdf/rationale&research.pdf><sup>11</sup>

8. One single-case design study was identified but is not included in this review because the WWC does not yet have standards for reviewing single-case design studies.
9. Confound: this study included *Read Naturally* but combined it with another intervention so the analysis could not separate the effects of the intervention from other factors.
10. Does not use a strong causal design: for the portion of the sample of interest to this WWC review, there was only one intervention and one comparison unit, so the analysis could not separate the effects of the intervention from other factors.
11. Does not use a strong causal design: the study did not use a comparison group.

## References *(continued)*

- Read Naturally. (n.d.). *Case 1: Original study, Minneapolis, Minn.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case1.htm><sup>12</sup>
- Read Naturally. (n.d.). *Case 2: Special education students, Huron County, Mich.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case2.htm><sup>13</sup>
- Read Naturally. (n.d.). *Case 4: Two-school study, Minneapolis, Minn.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case4.htm><sup>13</sup>
- Read Naturally. (n.d.). *Case 5: Four-school study, Minneapolis, Minn.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case5.htm><sup>13</sup>
- Read Naturally. (n.d.). *Case 6: Second graders, Elk River, Minn.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case6.htm><sup>13</sup>
- Read Naturally. (n.d.). *Case 7: Second graders, Leavenworth, Kan.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case7.htm><sup>11</sup>
- Read Naturally. (n.d.). *Case 8: Improved TAAS scores, San Antonio, Tex.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case8.htm><sup>11</sup>
- Read Naturally. (n.d.). *Case 9: Special education students, Upper Lake, Calif.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case9.htm><sup>11</sup>
- Read Naturally. (n.d.). *Case 10: Third grade student, Mathews County, Va.* Retrieved April 25, 2007, from <http://www.readnaturally.com/why/case10.htm><sup>11</sup>

### Disposition pending

Ihnot, C., & Marston, D. (1990). *Using teacher modeling and repeated reading to improve the reading performance of mildly handicapped students.* Unpublished master's thesis, Minneapolis, University of Minnesota.<sup>14</sup>

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**For more information about specific studies and WWC calculations, please see the [WWC Read Naturally Technical Appendices](#).**

12. Does not use a strong causal design: this study was a quasi-experimental design but did not use achievement pretests to establish that the comparison group was equivalent to the intervention group at baseline.
13. Complete data were not reported: the WWC could not compute effect sizes.
14. Pending development of WWC evidence standards for single-subject designs.