

---

# A Literature Review of Explicit, Systematic Phonics Instruction

Region 10 Comprehensive Center

August 2020

---

The content of this presentation were developed under a grant from the Department of Education through the Office of Program and Grantee Support Services (PGSS) within the Office of Elementary and Secondary Education (OESE), by the Region 10 Comprehensive Center at Wisconsin Center for Education Research (WCER), Center for Applied Research and Educational Improvement (CAREI), and Education Analytics (EA) under Award #S283B190048. This contains resources that are provided for the reader’s convenience. These materials may contain the views and recommendations of various subject matter experts as well as hypertext links, contact addresses, and websites to information created and maintained by other public and private organizations. The U.S. Department of Education does not control or guarantee the accuracy, relevance, timeliness, or completeness of any outside information included in these materials. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service, enterprise, curriculum, or program of instruction mentioned in this document is intended or should be inferred.

## About Us

### Wisconsin Evaluation Collaborative

The Wisconsin Evaluation Collaborative (WEC) is housed at the Wisconsin Center for Education Research at the University of Wisconsin-Madison. WEC's team of evaluators supports youth-serving organizations and initiatives through culturally responsive and rigorous program evaluation. Learn more at <http://www.wec.wceruw.org>.

### Comprehensive Center Network

---

The Wisconsin-Minnesota Comprehensive Center (WMCC10) aims to improve the academic achievement of elementary and secondary school students in the two-state region by advancing the use of evidence-based practices. The WMCC10 team has extensive experience working with the Wisconsin Department of Instruction (DPI), Minnesota Department of Education (MDE), regional education support organizations, professional associations, and school districts to translate research into practical applications.

### Prepared by the Wisconsin-Minnesota Comprehensive Center for Region 10

Carmen Bartley, University of Wisconsin-Madison

Kimberly Gibbons, University of Minnesota

Annalee Good, University of Wisconsin-Madison

Alisia Moutry, University of Wisconsin-Madison

### Contact

Carmen Bartley

[cbartley2@wisc.edu](mailto:cbartley2@wisc.edu)

# Explicit, Systematic Phonics Instruction

## Overview

This document was created in response to a request from the Wisconsin Department of Public Instruction to the Wisconsin Minnesota Comprehensive Center (WMCC) Region 10 to provide information on high-quality, qualitative studies about explicit, systematic phonics instruction in grades K-2. It is meant for internal use by the Department of Public Instruction to inform professional development provided to Wisconsin districts, schools, and appropriate stakeholders.

## Resource Selection

The following review, with the exception of one research brief from the International Literacy Association, utilizes only material from peer-reviewed journals. Using peer-reviewed articles helps ensure that the articles use rigorous methodology, answer meaningful research questions, and draw valid conclusions.

In searching for ‘high-quality, qualitative studies about explicit, systematic phonics instruction,’ the following search terms were used:

- Phonics instruction
- Phonics teaching strategies
- Explicit phonics instruction
- “Phonics” AND “instruction” AND “qualitative”
- Phonics
- Qualitative study phonics instruction
- Explicit phonics classroom strategies

Sources and databases used include Google Scholar; ERIC; *Journal of Early Childhood Literacy*; *Journal of Literacy Research*; *Language Arts*; and the International Literacy Association.

## Explicit, Systematic Phonics Instruction: Defined

The International Literacy Association (ILA) (2019) gives us the following definitions:

- *Explicit* means that the initial introduction of a letter-sound relationship, or phonics skill, is directly stated to students;
- Being *systematic* means that instruction follows a continuum from easy to more complex skills, slowly introducing each new skill

Mesmer and Griffith (2005) utilize the following definition that is based on practices reported by teachers and their own survey of the literature:

- “Explicit, systematic phonics instruction is instruction matched to students’ developmental levels. It incorporates a scope and sequence for content delivery and a variety of word study activities. Such instruction promotes student engagement and accountability through direct teaching.” (p. 374)

### References

International Literacy Association. (2019). Literacy Research Brief: Meeting the Challenges of Early Literacy Phonics Instruction.

\*Mesmer, H. A. E. & Griffith, P. L. (2005). Everybody’s Selling It—But Just What Is Explicit, Systematic Phonics Instruction? *Reading Teacher*, 59(4), 366-376.

\*indicates article was peer-reviewed

## Qualitative Studies About Explicit, Systematic Phonics Instruction

Performed searches turned up very limited high-quality, qualitative studies about explicit, systematic phonics instruction. There may be a reason for the lack of qualitative studies returned from these searches. Two comprehensive, peer-reviewed literature reviews, covering literacy research from 2006-2016, suggest reasons as to why, in recent years, there may be a lack of qualitative studies about explicit, systematic phonics instruction:

\*Parsons, S. A., Gallagher, M. A., Leggett, A. B., Ives, S. T., & Lague, M. (2020). An Analysis of 15 Journals' Literacy Content, 2007–2016. *Journal of Literacy Research*, 1-27.

- In this content analysis, a research team examined the articles in 15 journals published over a span of 10 years (2007-2016) to obtain an overview of the current field of literacy.
- Researchers coded the topics, theoretical perspectives, designs, and data sources in a total of 4,305 literacy-related articles.

\*Teale, W.H., Whittingham, C.E., Hoffman, E.B. (2020). Early Literacy Research, 2006-2015: A Decade of Measured Progress. *Journal of Early Childhood Literacy*, 20(2), 169-222.

- This review examines patterns found in early (preschool-grade 3) literacy research appearing in English-language publications during the period from 2006 through 2015.

Based on these two comprehensive reviews of literature related to literacy, three themes emerge as pertinent to this knowledge base:

- The “science of reading” movement pushed researchers towards more quantitative research designs, including experimental and quasi-experimental designs.
- Few studies focused explicitly on phonics: “phonics skills/knowledge/assessment is frequently included as one of an array of factors examined in terms of child effects/results” (Teale et al., 2020, p. 182).
- The qualitative studies that *do* exist often include “sociocultural perspectives” which “demonstrate reading as a complex and multifaceted phenomenon” (Parsons et al., 2020, p. 19). This goes against the grain of a quantitative perspective that “presents a simple view of reading, one that is easier to measure and easier to package into instructional programs” (Parsons et al., 2020, p. 19).

Therefore, the qualitative studies during this time period (2006-2016) found that learning to read is a complex and multifaceted process, rather than a systematic acquisition of explicit skills (i.e., phonics).

## Phonics Instruction

While the search did not return high-quality, qualitative studies on explicit, systematic phonics instruction, it did return peer-reviewed articles that are *related* to explicit, systematic phonics instruction. The following articles suggest that:

- Explicit, systematic phonics instruction—especially instruction that is accompanied by other methods (i.e., constant time delay; small group supplemental instruction) or instruments (i.e., an iPad)—may be effective for certain populations of students, including struggling readers and students who utilize augmentative and assistive communication.
- Phonics instruction is most effective when coupled with integrated language arts curriculum and when it is embedded within naturally engaging activities.
- Direct phonics instruction may positively impact English Language Learners and can help these students make important gains.

**Note:** The below studies are quantitative with one exception: the Noltemeyer et al. (2013) article contains supplemental qualitative observations.

**CITATION**

\*Ahlgren-Delzell, L., Browder, D. M., Wood, L., Stanger, C., Preston, A. I., & Kemp-Inman, A. (2016). Systematic Instruction of Phonics Skills Using an iPad for Students with Developmental Disabilities Who Are AAC Users. *The Journal of Special Education*, 50(2), 86-97.

*Target Population: Students with Developmental Disabilities Who Are AAC Users*

**METHODOLOGIES**

- A phonics-based reading curriculum in which students used an iPad to respond was created for students with developmental disabilities not able to verbally participate in traditional phonics instruction due to their use of augmentative and assistive communication (AAC).
- Randomized Control Trial: Students (grades K 8) were randomly assigned to a treatment group who received the phonics instruction or a control group who received sight word instruction on the iPad.
- Research Question 1: What are the effects of a phonics curriculum with systematic instruction and an iPad on the identification of phonemes and decoding skills by students with developmental disabilities who use alternative augmentative communication (AAC)?
- Research Question 2: What student or teacher characteristics mediate the changes in growth between students?

**FINDINGS**

- A repeated-measures ANOVA found that students who received the iPad-based phonics curriculum outperformed the control students.
- Students with intellectual disability, developmental delay, or autism spectrum disorder who use AAC may benefit from daily phonics instruction that is delivered using explicit and systematic instruction.
- An iPad, which can allow students to produce and manipulate individual phonemes to blend and segment, might enable students to learn phonics skills, including identifying sounds in words and reading words to find pictures.



**CITATION**

\*Bradley, R.L. & Noell, G. H. (2018). The Effectiveness of Supplemental Phonics Instruction Employing Constant Time Delay Instruction for Struggling Readers. *Psychology in Schools*, 55(7), 880-892.  
*Target Population: Struggling Readers*

**METHODOLOGIES**

- This study examined the provision of supplemental instruction using constant time delay (CTD) for struggling readers who had fallen behind in developing word-blending skills.
- Six first-grade students participated in the study
- Additionally, the study examined the utility of adding a material reward contingency to the instructional program with a contingency derived from percentile-shaping procedures.
- Experimental design: an adapted three-phase reversal design was used to examine the relationship between conditions and phonics skills as indexed by pseudoword reading.

**FINDINGS**

- Participants exhibited substantial learning gains when provided CTD instruction in phonics skills as compared to baseline demonstrating clear experimental control.
- “The most important finding from our study for practice is that CTD is an effective means of teaching both basic phonics skills and complex phonics skills, such as diagraphs, to struggling readers” (p. 889)
- “Participants did not demonstrate increased learning with the addition of material reinforcement, suggesting that accuracy feedback and social reinforcement were sufficient for teaching phonics skills to these beginning readers” (p. 890)

**CITATION**

\*Noltemeyer, A. L., Joseph, L. M., & Kunesh, C. E. (2013). Effects of Supplemental Small Group Phonics Instruction on Kindergarteners' Word Recognition Performance. *Reading Improvement, 50*(3), 121-131.

*Target Population: Kindergarten Student*

**METHODOLOGIES**

- This study examined the effects of a phonics supplemental small group instructional approach for improving kindergartners' word reading skills.
- Six kindergarten students from one primary school were randomly assigned to one of two groups. Each group participated in a phonics condition as well as a control condition.
- Data were examined using visual analyses and comparison of mean outcomes, supplemented by qualitative observations.

**FINDINGS**

- Results of the study indicate that the phonics instruction was effective at improving words recalled immediately following the instructional period compared to pre-test and control word performance. This suggests that children as young as kindergarten can learn to read words in brief, small group drill and practice sessions that allow for frequent modeling, opportunities to respond, and feedback.
- However, many gains were lost by the one-week recall assessment, and individual variation in instructional response emerged.
- In addition, research suggests that phonics instruction is most effective when coupled with integrated language arts instruction (e.g., Xue & Meisels, 2004). Therefore, we would expect that students would be provided with multiple contexts to practice decoding words (e.g., guided storybook reading, games).
- Students need to continue to receive both explicit and incidental instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension. This instruction should be developmentally appropriate, considering the unique needs of young learners. For example, phonics instruction could be embedded into naturally engaging activities that are appropriate for children of this age (p. 130).

CITATION	METHODOLOGIES	FINDINGS
<p>*Robinson, J. M. (2018). Evaluation of Teaching Methods to Improve Reading Performance of English Language Learners. <i>Journal for the Advancement of Educational Research International</i>, 12(1), 25-33.</p> <p><i>Target Population: English Language Learners</i></p>	<ul style="list-style-type: none"> <li>• This paper presents an evaluation of two reading methods, phonics-based instruction and whole language learning for English Language Learners (ELLs).</li> <li>• The study took place in a K-12 international school, with 110 Grade 1 subjects and 83 Grade 2 students.</li> <li>• The measurement of reading performance included standardized tests for reading achievement. Statistical analysis used t-tests and one-way ANOVA.</li> </ul>	<ul style="list-style-type: none"> <li>• The study found that students in Grade 1 profited significantly from having intensive phonics-based instruction as a major part of the reading program.</li> <li>• Data support evidence that students who come from "linguistically different" backgrounds, such as the international school's ELL population, respond best to reading instruction that incorporates an intensive phonics program that includes directed teaching of skills.</li> <li>• Data also suggests that with appropriate teaching methods, students in the early years of schooling can make important gains after significant setbacks.</li> </ul>

\*indicates article was peer-reviewed

## Phonics: Teacher Preparation

The first article below (Ehri & Flugman, 2018) suggests that if teachers are expected to engage in effective phonics instruction, they need access to appropriate professional development opportunities and high-quality curricula. Other ways to improve teachers' ability to become effective reading teachers is to create better pre-service teacher preparation or provide teachers with intensive mentoring experiences. Supporting teachers' abilities as reading instructors can pay off for students as they make reading and spelling gains.

The second article (Thoma, 2020) may be of interest because it does utilize a *mixed-methods design* and the setting is in Watertown, Wisconsin. However, the findings from the study are somewhat inconclusive.

CITATION	METHODOLOGIES	FINDINGS
<p>*Ehri, L. C. &amp; Flugman, B. (2018). Mentoring Teachers in Systematic Phonics Instruction: Effectiveness of an Intensive Year-long Program for Kindergarten Through 3rd Grade Teachers and Their Students. <i>Reading and Writing</i>, 31, 425-456.</p>	<ul style="list-style-type: none"> <li>• The current study examined effects of a year-long mentoring program to improve teachers' knowledge and effectiveness in teaching phonics and the extent that it improved students' achievement in reading and spelling.</li> <li>• Teachers in urban, lower SES schools completed a 45-hour course followed by 90 h of in-school training.</li> <li>• Mentors (N = 29) worked with kindergarten, 1st, 2nd, and 3rd grade teachers (N = 69) twice a week for 30 weeks during the year.</li> <li>• Mentors taught teachers how to provide systematic phonics instruction to their students (N = 1,336).</li> <li>• Scores on various measures were subjected to ANOVAs</li> </ul>	<ul style="list-style-type: none"> <li>• The current study examined effects of a year-long mentoring program to improve teachers' knowledge and effectiveness in teaching phonics and the extent that it improved students' achievement in reading and spelling.</li> <li>• Teachers in urban, lower SES schools completed a 45-hour course followed by 90 h of in-school training.</li> <li>• Mentors (N = 29) worked with kindergarten, 1st, 2nd, and 3rd grade teachers (N = 69) twice a week for 30 weeks during the year.</li> <li>• Mentors taught teachers how to provide systematic phonics instruction to their students (N = 1,336).</li> <li>• Scores on various measures were subjected to ANOVAs</li> </ul>

**CITATION**

\*Thoma, J. (2020). A Model of Professional Development on Phonics Instruction: A Case Study of One Midwestern District. Journal of Education, Original Research Report.

**METHODOLOGIES**

- This pilot study was an explanatory mixed-methods design to examine whether teachers changed instructional practices after adopting a new curriculum material to support the response to intervention (RTI) framework.
- In coordination with one rural school district which had implemented instructional intervention practices, the researcher observed classroom implementation of phonics intervention instruction in K–3 classrooms in four different elementary buildings.
- Teachers took a survey around professional development and instructional practices.

**FINDINGS**

- The inconclusive results from student data reveal that more time and disaggregated data will need to be collected to determine the effectiveness of professional development on student achievement.
- Although many teachers are providing interventions, only 78% of teachers report having professional development on the RTI framework.
- In three out of four classrooms, teachers followed the instructional routines outlined on the instructional intervention checklist with fidelity.

\*indicates article was peer-reviewed