

The Reading Wars and Reading Recovery: What Educators, Families, and Taxpayers Should Know

Pamela Cook
Deborah R. Rodes
Kay L. Lipsitz

Reading Recovery, a meaning-based reading program designed for young children at risk of reading failure, is widely implemented across the United States. We discuss the recent Reading Recovery \$45 million four-year i3-funded scale-up study that was designed to “cover the expansion of Reading Recovery around the U.S.” (May, Sirinides, Gray, & Goldsworthy, 2016, p. 1). While one of the two goals of the study was to determine the long-term impact of Reading Recovery, this study, described by its authors as “highly successful” (p. 4), found a “not significant” long-term effect on students’ reading skills. Subsequent Reading Recovery publications have failed to mention this “not significant” effect. With the exception of year one of the study, there are no publicly available test score data for the students when they were in Grades 2 or 3. Further, it appears that the actual lowest achieving students (special education students, students retained in first grade, and others) were systematically excluded from Reading Recovery instruction. Overall, there is very limited evidence of Reading Recovery’s efficacy as an effective long-term reading intervention. We discuss the limitations of the Reading Recovery approach, how Reading Recovery can be improved, and strongly recommend that schools do not adopt this program unless it incorporates all components of evidence-based reading instruction.

Keywords: *Reading Wars, Reading Recovery, whole language, code, phonemic awareness, phonics, early intervention, long-term impact, balanced literacy, special education, grade retention, sample size, researcher-made tests, standardized tests, conflicts of interest, not significant, lowest achieving, special education, cost*

Reading is the most essential skill children learn upon entering school and forms the basis for all learning that follows. The unfortunate reality is that over 30% of fourth graders in the United States read below the basic level, and 69% read below the proficient level (National Center for Educational Statistics, March 2017). Research has established that the majority of children who enter school at risk for reading failure can learn to read at average or above-average levels with early identification and systematic, intensive instruction in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies (Torgesen, 2002).

Controversies about how reading should be taught have persisted for many decades (Lane, 2014). The debate, often dubbed the “reading wars,” has focused mostly on whether early reading instruction should emphasize

the code (i.e., phonics instruction), meaning (i.e., whole language), or both (i.e., balanced literacy).

This paper critically examines Reading Recovery, a meaning-based program for children at risk for developing reading difficulties during the early years of schooling. The historical background of the program is presented, followed by the results of a recent \$45 million U.S. government-funded scale-up study. Next, the training provided to teachers in this study is discussed, along with student selection practices, progress monitoring and outcome measures, and costs. Current evidence-based findings and practices and how Reading Recovery can be improved are then discussed. The review concludes with our position regarding the adoption of the Reading Recovery program in U.S. schools.

Reading Recovery Background

Reading Recovery was developed in New Zealand by Marie Clay in the 1970s to complement the whole language approach to reading instruction in that country. The program was adopted by most English language countries following its introduction throughout New Zealand in the 1980s. The program was introduced to the U.S. in 1984 by Gay Su Pinnell and Charlotte Huck of Ohio State University (OSU), and is now widely implemented across the country. In the 2015–16 school year in the U.S., Reading Recovery reached 42,442 first graders in 3,447 school buildings from 1,109 school districts in 43 states (Ohio State University, 2016a).

Reading Recovery in North America is governed by the Reading Recovery Council of North America (RRCNA). The standards and guidelines of the RRCNA state that Reading Recovery is designed for children who are the lowest achievers in the class/age group (2015, p. 6). The program's underlying principle is that individualized, "short-term, highly responsive instruction delivered by an expert can disrupt the trajectory of low literacy achievement, produce accelerated gains, and enable students to catch up to their peers and sustain achievement at grade level into the future" (May et al., 2015, p. 549).

Each Reading Recovery lesson consists of reading familiar books, reading yesterday's new book and taking a running record, working with letters and/or words using magnetic letters, writing a story, assembling a cut-up story, and reading a new book. (Reading Recovery Council of North America, 2016e).

The program, however, was developed prior to contemporary scientific research on how children learn to read. Nonetheless, as Chapman and Tunmer (2016) noted, Reading Recovery has become the most widely used early intervention program in the world for young children at risk for developing reading difficulties. However, the program has been questioned by reading scientists for many years (Chapman & Tunmer, 2015, 2016; Denton, Ciancio, & Fletcher, 2006; Shanahan, 2014; Travers, 2017; Tunmer, Chapman, Greaney, Prochnow, & Arrow, 2013). According to Wrightslaw (n.d.), 30 leading international reading researchers issued an "open letter" in 2002 which stated that Reading Recovery does not provide explicit instruction in phonics and phonemic awareness and has not met the needs of those lowest performing students. While a 2002 Reading Recovery response to this open letter made frequent references to its instruction in these foundational skills (Reading Recovery Council of North America, 2002), there has been no mention of these skills in the Reading Recovery or Literacy Lessons Standards and Guidelines to the present day (Reading Recovery Council of North America, 2015b, 2015c) or in their 2016 and 2017

national conferences (Reading Recovery Council of North America 2015a, 2016c).

In 2014, a comprehensive Reading Recovery Evaluation (2004–2014) from a Wisconsin school district determined that Reading Recovery students demonstrated low MAP (Measuring Academic Progress) reading proficiency later in their academic careers. Further, students in need of the most literacy support in Grade 1 remained among those needing the most support in later grades, even if they were successfully discontinued from Reading Recovery (Madison Metropolitan School District, 2014, p. 5)

Reading Recovery Four-Year i3 Scale-Up Study

In an attempt to provide stronger evidence in support of the effectiveness of Reading Recovery, an Investing in Innovation (i3) grant to the OSU from the U.S. Department of Education's Office of Innovation and Improvement in 2010 provided \$45 million in funding for a four-year study to scale-up the expansion of Reading Recovery around the U.S. The evaluation of the study was conducted by the Consortium for Policy Research in Education (CPRE) at the University of Pennsylvania in collaboration with the Center for Research in Education and Social Policy (CRESP) at the University of Delaware (May, Sirinides, Gray, & Goldsworthy, 2016).

The Reading Recovery i3 scale-up included nearly 61,992 randomized students and 3,747 teachers in more than 1,200 schools over four years (May et al., 2016; Reading Recovery Council of North America, 2016d). According to the final report, this scale-up "was one of the most ambitious and well-documented expansions of an instructional program in U.S. history, and it was highly successful" (May et al., p. 4).

Yet the results of Reading Recovery's long-term (i.e., Grade 3) impact on the reading level of the initial first grade cohort were disappointing. May et al. (2016, p. 3) found that "*the impact estimate produced by this analysis was not significant* [emphasis added]," but also noted that there was insufficient data to produce a conclusive result. They went on to explain that third grade state assessment data for the 2012–13 cohort of students would be available in fall 2015, and grade 3 assessment data for the 2013–14 cohort were to be available in fall 2016. This data has not been made available.

Post-2016 Reading Recovery publications, conference programs, and grant application (Rodgers, 2016; Ohio State University, 2016; Reading Recovery Council of North America, 2015a, 2016c, 2015d) do not refer to the "not significant" long-term impact reported in the final i3 scale-up report (May et al., 2016). Given the goals of the i3 study, publicity around the project and the large commitment of taxpayer funding to implement Reading Recovery, it is

noteworthy that this nonsignificant finding has not been further discussed.

According to an email from one of the report's authors, a Senior Researcher for CPRE, more taxpayer funding will be required to obtain these data (P.M. Sirinides, personal communication, October 17, 2016). This is particularly unsettling considering that one of the two main goals of the initial \$45 million grant was to provide experimental evidence of the short- and long-term impacts of Reading Recovery by measuring the impact of Reading Recovery over grades 2 and 3 (May et al., 2016).

In response to an email inquiry (H. May, personal communication, October 14, 2016) regarding the availability of the promised 2015 and 2016 long-term impact data, we received a copy of the project abstract for An Efficacy Follow-Up Study of the Long-Term Effects of Reading Recovery under the i3 Scale-Up (October 20, 2016). According to this abstract, submitted to the U.S. Institute of Education Sciences (IES) for additional funding, the i3 scale-up project yielded no conclusive information about the sustainability of any impacts beyond Grade 1. However, this observation in the application for funding appears to be at odds with the final 2016 i3 study report. This report did indeed provide this information (May et al., 2016, p. 3) which acknowledged that the 2011–12 long-term results were not significant.

It is perplexing that a \$45 million, 4-year study did not include additional data points to determine the long-term program impact of Reading Recovery instruction. Additional pre-post long-term data could have been collected on second and third grade students by administering other measures used by Reading Recovery (e.g., Iowa Tests of Basic Skills (ITBS) and/or Slosson Oral Reading Test). Indeed, the Project Narrative submitted to the U.S. Department of Education by Reading Recovery in 2010 specified that all students in first grade would be assessed using the Slosson Oral Reading Test at the end of each school year (U.S. Department of Education Reading Recovery Project Narrative, 2010, p. 30). Slosson scores were not reported in any of the i3 reports.

Chapman and Tunmer (2016), in their critique of the i3 scale-up study, noted that “*After three decades of Reading Recovery, there is virtually no empirical evidence to indicate that successful completions in Reading Recovery result in sustained literacy achievement gains [emphasis added, p. 8]*”. Indeed, despite the significant funding under the i3 program, the May et al. (2016) study has been unable to provide any evidence regarding sustained literacy achievement gains following placement of students in the Reading Recovery program.

Literacy Lessons as Primary Text for Teachers in Reading Recovery i3 Scale-Up Coursework

Teachers recruited for the Reading Recovery i3 scale-up study used Marie Clay's 2005 *Literacy Lessons™ Designed for Individuals*, Parts One and Two (Clay, 2005a; 2005b) as the primary text for their training (May et al., 2015). An examination of these two handbooks and Reading Recovery documents raises important questions about the training of Reading Recovery teachers in the i3 scale-up study. According to OSU's *Literacy Lessons overview*, Literacy Lessons professional development does not result in Reading Recovery certification (Ohio State University, 2013). Further, there are concerns regarding the students Literacy Lessons is designed to serve and the unsettling confusion surrounding one-to-one vs. group instruction.

The Literacy Lessons Standards and Guidelines in the U.S. clearly state that the main purpose of Literacy Lessons is to support the needs of students in grades 1-4 who require special education and English Language Learners who are considered not to be eligible for Reading Recovery (Reading Recovery Council of North America, 2015c). It does not appear that students selected for the i3 Reading Recovery study were special education students or English language learners.

There is a clear distinction between Literacy Lessons' requirement for instruction to be individually designed and delivered (Reading Recovery Council of North America, 2015c) and the way this program is marketed. A Reading Recovery promotional publication, *Increase Literacy Expertise in Schools*, clearly states that the Literacy Lessons protocol is intended for “small groups and classrooms outside the one-to-one individual lessons” (Reading Recovery Council of North America, 2016a, 2016b, p. 2).

This exclusion from one-to-one Reading Recovery instruction would be logical if these students were initially provided with explicit and systematic instruction in foundational reading skills (phonemic awareness, phonological awareness, and word-level decoding skills). Unless these students receive such evidence-based foundational instruction as the first step in their reading instruction, and until they have mastered these prerequisite skills, they will not become proficient readers (Chapman & Tunmer, 2016).

Reading Recovery Student Selection: First Grade Referral and Retention Practices

Marie Clay contended that Reading Recovery is designed for children who are the lowest achievers (Clay, M. 1991, p. 60).

In the i3 Year One Report, CPRE researchers noted that many teachers reported that school and Reading

Recovery policies did not allow for placement in the Reading Recovery program if students had Individualized Education Plans (IEPs) for special education services, or who had repeated grade 1 (May et al., 2013). The 2014 year two i3 report confirmed that “some schools and districts choose to exclude groups of students (e.g., students with IEPs or those repeating first grade) from receiving Reading Recovery” (May et al, 2014, p. 47).

This practice is contrary to Reading Recovery North American Trainers Group’s (Reading Recovery of North America, 2015) *Rationales and Guidelines for Selecting the Lowest-Achieving First-Grade Students for Reading Recovery* publication, which quoted Clay’s observations that principals have wanted to exclude certain categories of children to allow places for those children who are thought to derive the most benefit from the program. It was emphasized by Clay that Reading Recovery was specifically designed for the lowest achieving children in a class or age group. She was adamant that “Exceptions are not made for children with lower intelligence, for second-language children,” or for children with a range of other special needs or disabilities, including exclusion of those with learning disabilities (Clay, 1991, p. 1). However, exceptions apparently have been made for students who have been retained in first grade with the following caveat: Children retained in grade 1 receive an additional year of schooling, which effectively provides further intervention (Reading Recovery Council of North American Trainers Group, 2015). However, a struggling reader will not benefit from retention in grade 1 if that experience involves the same type of literacy instruction that initially has failed to help the child progress (National Association of School Psychologists, 2011).

The 2013 scale-up, year-one report also stated (May et al., 2013):

Data collection is also underway for a non-experimental study of changes in grade retention and special education referral rates for first graders...Data from this study of retention and referral will be pooled across multiple cohorts of i3 schools, and included in the final evaluation report. (p. 34)

This pooled data was not reported in the 2016 final i3 evaluation report.

Reading Recovery trainers must be aware of the decades of research studies on grade retention that show that students in kindergarten through second grade have the highest rates of retention across the country (Morrow, 2004), and that the most common reason for student retention is academic failure, usually when a student is having reading difficulty in Grades 1 through 5 (Picklo &

Christenson, 2005). Further, taxpayers should know that the annual cost of retaining 2.3% of the 50 million students enrolled in American schools exceeds \$12 billion. (West, 2012). Finally, results of a meta-analysis comprising nearly 700 analyses of achievement, from over 80 studies during the past 75 years, “do not support the use of grade retention as an early intervention to enhance academic achievement” (Tingle, Schoeneberger, & Algozzine, 2012, pp. 181–182).

Paradoxically, despite Reading Recovery’s assertion that first grade retention amounts to an intervention because of the additional year of schooling, the *Principal’s guide to Reading Recovery* (Reading Recovery Council of North America, 2012, p. 11) stated that the research evidence is strong in showing that children making slow progress do not catch up with their grade-level peers as a result of grade retention.

Rather than using grade retention to achieve reading gains, educators must instead employ evidence-based instruction and frequent, ongoing evidence-based measures of progress to guide each child’s instruction (Foorman et al., 2016; Lane, 2014). Reading Recovery does not administer commonly used standardized measures such as DIBELS (Dynamic Indicators of Basic Early Literacy Skills) to measure ongoing early reading progress.

Measuring Progress

According to Reading Recovery’s Standards and Guidelines (2015d), the lowest achieving students are selected for Reading Recovery and are assessed solely with Marie Clay’s Observation Survey of Early Literacy Achievement (OS), a non-standard researcher-developed assessment.

In addition the Observation Survey, *The Standards and Guidelines of Literacy Lessons in the United States* (Reading Recovery Council of North America, 2015c) also require the administration of the Slosson Oral Reading Test as a standardized oral reading fluency measure. Further, the Reading Recovery “Project Narrative” submitted to the U.S. Department of Education in 2010 for i3 funding specified that all grade 1 students will be assessed at the end of each school year using the Slosson Oral Reading Test (U.S. Department of Education, 2010, p. 30). Slosson assessment scores were not reported in any of the i3 reports. Pre/post testing using the Slosson or similar standardized measures of early reading skills would have provided progress monitoring and outcome measures in addition to the Observation Survey of Early Literacy Achievement (OS) pre-post testing and ITBS post-testing.

The final i3 scale-up report (May et al., 2016) stated that there were consistently larger impacts on Clay’s Observation Survey of Early Literacy Achievement (OS) results than on the Iowa Test of Basic Skills (ITBS). Yet,

while OS pretest and posttest data were obtained, neither ITBS nor Slosson pretest data or progress monitoring data were reported from the 2nd and 3rd grade study sample making it impossible to determine the longer term impact of Reading Recovery.

As Denton, Ciancio, and Fletcher (2006) reported, “when the OS subtests are scored as recommended in the manual, they are not suitable for program evaluation” (Abstract). They recommended caution in using subtest scores for diagnostic purposes or for monitoring progress.

The conclusion of the year-two i3 report indicated that Reading Recovery teacher leaders and training center directors reported that the best way to secure school and district commitment to Reading Recovery is to show evidence of student growth, and that student outcomes data is the essential tool in both recruitment and retention of schools and teachers (May et al., 2014). Yet, the final i3 scale-up report concluded that, while showing value was important for Reading Recovery, “*it is not always true that student data can make the case for the program* [emphasis added]” (May et al., 2016, p. 146).

Reading Recovery and the What Works Clearinghouse and the i3 Study

Since 2002, the What Works Clearinghouse (WWC) in the Institute of Education Sciences (IES) within the U.S. Department of Education has reviewed research on educational programs, products, practices, and policies in order to provide educators with the information they need to make evidence-based decisions.

In 2008 and 2013, Reading Recovery received very positive reviews from the WWC (What Works Clearinghouse, 2008, 2013). The August 2016 WWC single-study analysis of the final 2016 RR i3 Scale-up evaluation report determined that this study “meets WWC standards without reservations” (What Works Clearinghouse, 2016, p.4). This single-case review stated that lessons are only provided by certified Reading Recovery-trained teachers who have been trained in accordance with the Standards and Guidelines of Reading Recovery in the United States, 6th edition (Study Details). Yet, one must question how a study can meet standards “without reservations” when the Literacy Lessons training provided to teachers does not result in Reading Recovery certification (Ohio State University, 2013, p. 1), the results for the long-term impact of Reading Recovery were not significant, and when student selection was one of the areas in which inadequate adherence to the *Standards and Guidelines* were known from the early stages of the project (May et al., 2014, pp. 43–44; May et al., 2016, p. 25).

Cheung and Slavin (2016) have identified a number of difficult issues in education research, especially regarding

sample sizes and nonstandardized researcher-made tests that might introduce bias into study outcomes. According to Cheung and Slavin (2016, p. 286), studies with small sample sizes (less than 250 subjects) produced almost twice the effect sizes of those with large sample sizes (250 or more subjects). Further, the average effect size of studies that used researcher-developed measures was two and a half times larger than that of studies that used independent outcome measures. Cheung and Slavin (2016, p. 290) went on to recommend that reviewers should exclude researcher-developed measures and should insist on large, randomized evaluations to validate promising programs.

There are growing concerns about conflicts of interest in WWC procedures, standards, and reviews (Cheung & Slavin (2016); Simons et al. (2016)). The current WWC Procedures and Standards Handbook (WWC, 2014, p. A.4) states, “Studies that have been conducted by the developer of an intervention do not fall under this conflict of interest policy. Therefore, the WWC does not exclude studies conducted or outcomes created by the developer of the product being reviewed.”

In 2008, an independent research panel was charged by a U.S. Senate subcommittee with determining whether the Clearinghouse’s evidence review process and reports are scientifically valid in view the significant financial investment made in the Clearinghouse. The panel recommendations (Brown et al., 2009) issued cautions regarding researcher-developed outcome measures. This research panel also recommended that WWC establish a new protocol to keep track of potential conflicts of interest, such as cases where a study is funded or conducted by a program developer.

A recent journal analysis (Simons et al., 2016) found that the *WWC Handbook* exempted the developer of an intervention from conflict of interest restrictions. As a result, many WWC-endorsed interventions were conducted by people or companies who potentially could have profited from those endorsements. According to Simons, et al., “*The consequences of this exception are not trivial*” (emphasis added, p. 170).

In its 2013 Reading Recovery review, the WWC reviewed 79 studies on the reading skills of beginning readers. Seventy-six studies did not meet WWC evidence standards. Only three Reading Recovery studies met the WWC evidence standards without reservations. Two studies were conducted by OSU developers (Pinnell et al.) who brought the Reading Recovery program to the U.S. from New Zealand in 1984. The third study, funded by Reading Recovery Council of North America (RRCNA), was conducted by a research consultant for the RRCNA (Schwartz, 2005). Further, all three Reading Recovery studies used small sample sizes (less than 250 students)

and based results on a researcher-developed test, Clay's *Observation Survey of Early Literacy Achievement* (OS).

Cheung and Slavin concluded that "the impacts of these differences (small sample size, nonstandardized researcher-made tests, and conflicts of interests) are no longer academic" and point out that reported differences are potentially misleading for educators and policy makers and can serve to promote gaming the system by publishers and developers to make their programs seem more effective than they really are.

Balanced Literacy

For many years, Moats has stressed that whole language continues to pervade textbooks for teachers and instructional materials for students. Many state agencies and school districts embrace "balanced" reading instruction with the implication that the best of both whole-language and code-based instruction have been successfully combined. Unfortunately, this "balanced" approach refers to the incidental, not the explicit, systematic teaching of the code. (Moats, 1999, p.13).

Shanahan (Shanahan on Literacy, 2014, October 31) recently suggested, "Want to win an argument about literacy? Just claim your approach is 'balanced'.... Unfortunately, 'balance' too often means that kids don't get substantial explicit instruction in phonological awareness, phonics, vocabulary, spelling, handwriting, oral reading fluency, reading comprehension, or writing. Studies show repeatedly that explicit instruction in these is beneficial in moving kids forward in literacy learning...." Shanahan concluded that "it is time that we retire the balanced literacy."

Travers (2017, p. 201) cites the argument to moderation, the belief that "the truth is somewhere between two claims despite the amount or quality of evidence" as an example of false reasoning often seen in pseudoscientific thinking. Travers asserts that balanced literacy is a very good example of how an appeal to moderation fallacy can lead to beliefs about reading instruction that are not supported by the overwhelming body of scientific evidence.

Impact of Literacy Skills on the Emotional Well-being of Young Children

Early instruction in explicit foundational reading skills also has a strong impact on the emotional well-being of young children. A recent study, *Kindergarten Reading Skill Level and Change as Risk Factors for Chronic Problem Behavior* (McIntosh, Sadler, & Brown, 2012) concluded that a phonological awareness measure at the end of kindergarten was a significant predictor of multiple office discipline referrals in Grade 5. The study concluded with this critical message: "If schools do not teach literacy skills

from the start of kindergarten, negative trajectories may be harder to change" (p. 26).

Cost Concerns

When many school administrators in the i3 study expressed concerns about the considerable cost of the Reading Recovery program, an i3 scale-up report stated that more specific cost-effectiveness results would be available in the final year of the project (May et al., 2015). The final 2016 i3 report revealed that while the i3 grant funded training and materials, it did not pay the newly trained teachers' salaries. Many school and district administrators found the expense very challenging (May et al, 2016). A comprehensive 2014 Reading Recovery evaluation by a Wisconsin school district that provided Reading Recovery instruction to students from 2004-05 to 2013-14 determined that the annual cost of Reading Recovery was approximately \$1 million per year with 95-99% of that cost coming from salary and benefits for Reading Recovery teachers (Madison Metropolitan School District, 2014).

The 2002 open letter from international reading researchers concluded, "Reading Recovery is not a productive investment of taxpayer money" (Wrightslaw, n.d.).

Current Evidence-Based Findings and Practices

What evidence exists regarding effective instruction for beginning readers? The comprehensive National Reading Panel Report (2000) identified phonemic awareness and letter knowledge as the two best school-entry predictors of how well children will learn to read during their first two years in school.

Indeed, Clay (2005b) confirmed that phonemic awareness is essential for developing competence in word recognition. She stated that some children struggle with separating the sounds of spoken language. Yet, structured, systematic training in phonemic and phonological awareness has not been part of Reading Recovery teachers' professional development and there has been no mention of these skills in the Reading Recovery Standards and Guidelines, 2015 or the 2016 or 2017 Reading Recovery conferences (Reading Recovery Council of North America, 2015a, 2016c).

As Vellutino, Fletcher, Snowling, and Scanlon (2004) noted, there is an abundance of research to show that deficits in phonological coding are the core of reading difficulties experienced by most beginning readers. They also asserted that "*phonological skills carry greater weight as determinants of beginning reading ability than do semantic and syntactic skills* [emphasis added]" (p. 30), whereas semantic (meaning found in actual text) and

syntactic (the way that words are assembled and sentences are constructed) skills carry greater weight than do phonological skills in more advanced readers. Surprisingly, a recent Reading Recovery briefing paper (Reading Recovery Council of North America, 2015b) cited this Vellutino et al. research summary but neglected to include its finding of the importance of phonological processing skills, and lesser importance of semantic and syntactic skills for beginning readers. This omission is likely due to the fact that Reading Recovery is a meaning-based reading program that does not accept the fundamental importance of explicit and systematic instruction in the foundation language-related skills as necessary (but not sufficient) for successful reading acquisition.

In line with Vellutino et al. (2004), Pearson (2004, p. 10) noted that the overwhelming evidence shows that phonemic awareness is a necessary but not sufficient condition for the development of decoding and reading skills, and that children who possess high degrees of phonemic awareness in kindergarten or early first grade are very likely to be good readers throughout their elementary school careers. Unfortunately, many young readers do not “catch” the alphabetic principle by simple immersion in print or by listening to others read aloud.

Consistent with the recommendations of the National Reading Panel (2000) and Pearson (2004), a July 2016 What Works Clearinghouse (WWC) *Practice Guide on Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade* (Foorman et al., 2016) presented four recommendations and corresponding levels of evidence for all K-3 students. Only two of the four instructional practices were found to have strong evidence of effectiveness. These were the need to develop in students an awareness of the segments of sounds in speech and how they link to letters, and to explicitly teach students to decode words, analyze word parts, and write and recognize words (Foorman et al., 1997). The evidence for this conclusion is overwhelming, compelling, and too often ignored. A 2014 report, *Evidence-Based Reading Instruction for Grades K-5* (Lane, 2014) pointed out that:

Although alphabet knowledge, print awareness, phonemic awareness, word recognition, and reading fluency are all critical and necessary aspects of literacy, they are insufficient for reading proficiency. The purpose of reading is to understand text, so instruction must go beyond these basic skills. Knowledge of the meanings of words in text (vocabulary) and having a repertoire of strategies for accessing the author’s meaning (comprehension) are both essential for understanding. (p. 16)

For this reason, the What Works Clearinghouse has a companion to its foundational skills practice guide for all students: *Improving Reading Comprehension in Kindergarten through 3rd Grade: A Practice Guide* (Shanahan et al., 2010). While this guide, like Reading Recovery, focuses on comprehension instruction, it also emphasizes the necessary but not sufficient need for explicit instruction in word level skills (phonemic awareness, phonics, and fluency) for reading proficiency. There are no references to Reading Recovery in this WWC practice guide.

Reading Recovery Outcomes Can be Improved

Reading Recovery is a meaning-based program that focuses on comprehension skills, the ultimate goal of skilled reading. However, research has repeatedly established that strong foundational skills are essential prerequisites to this goal.

In 2015, Chapman and Tunmer asserted that:

...the effectiveness of Reading Recovery could be improved considerably by incorporating into the program more intensive and explicit instruction in phonological awareness and the use of letter-sound relationships, in combination with strategy training on how and when to use this knowledge to identify unknown words in text. (pp. 9–11)

They argued that if the Reading Recovery program is not changed to incorporate strategies that reflect current scientific research on early reading interventions, the program should be replaced by more up-to-date approaches. They added that more effective literacy instruction during children’s first year in school should reduce the demand for wait-to-fail, expensive programs like Reading Recovery.

The \$45 million i3 scale-up study (May et al., 2016) provided an ideal opportunity for Reading Recovery to incorporate these contemporary research-based interventions into young children’s reading instruction from their first months in school, conceivably resulting in much stronger long-term results. Unfortunately, this opportunity has not been pursued.

Literacy in the United States

The National Assessment of Educational Progress has continued to find that over 30% of fourth graders in the United States read below the basic level, and 69% read below the proficient level (National Center for Educational Statistics, 2017). The most recent PISA (Programme for International Assessment) results place U.S. high school students’ literacy scores in 24th place internationally (Organisation for Economic Co-operation

and Development, 2016). Yet research has established that 90% to 95% of young readers can improve reading skills to within the average range with evidence-based classroom instruction and intensive interventions (Lyon, Fletcher, Torgesen, & Shaywitz, 2004).

Of all children identified as learning disabled in U.S. schools, 80% are primarily impaired in reading, and 90% of these children have problems with the development of phonemic awareness and decoding skills (Foorman, Fletcher, & Francis, 1997). These students will not benefit from either Reading Recovery or Literacy Lessons because both are “wait to fail” programs that do not provide early explicit instruction in foundational skills. For children to approach the levels of their peers and maintain achievement at grade level in the future (May et al., 2015), they must be identified at school entry (Tunmer et al., 2013), preferably beginning in kindergarten or before. Reading Recovery initiates instruction in late first grade; Literacy Lessons is intended for children in need of special education or ESL in grades 1-4.

In the U.S., schools continue to be permitted to identify children with learning disabilities by the determination of a “severe discrepancy” between intellectual ability and academic achievement. The IQ-discrepancy criterion is potentially harmful to students as it results in delaying intervention until the student’s achievement is sufficiently low that the discrepancy is achieved. This is a “wait to fail” model that often results in children not being identified for special education intervention until third grade or later when it would be very difficult to close the achievement gap (Wright & Wright, 2011).

Difficulties with phonemic awareness and phonics are hallmarks of dyslexia. As Denton (2010) noted, the most common type of reading disability by far is dyslexia (Slide 34). According to a recent article, “Dyslexia Laws in the USA: An update:”

As of December 2015, 28 states had statewide dyslexia laws, 6 states had initiatives or resolutions related to dyslexia, and 14 states had handbooks or resource guides to inform parents and educators about proper procedures for students in public and private educational settings (Youman and Mather, 2015, p. 10).

Reading Recovery teachers are not trained to provide explicit and systematic instruction in the essential foundational components of reading.

We agree with Pearson (2004) when he reported, “The problems we face are too vexing to limit ourselves to a single methodology or epistemology... We surely need to know what works, but we also need to know why it works, for whom, and under what conditions” (p. 22).

Rather than disputing specific best methods for teaching reading to struggling young children, these children would be better served if the discussion were framed in terms of the components of effective reading instruction each child needs at any given time in his/her academic career.

That said, there are several necessary building blocks for effective reading instruction agreed upon in the scientific research literature on reading acquisition: phonemic awareness, alphabetic decoding, automatic word recognition, text fluency, vocabulary, and comprehension strategies. Children must master foundational skills before they can acquire higher level reading skills. Each of these building blocks is a necessary but not sufficient requirement for developing effective reading skills and should first be taught within the core curriculum to all children from the time they enter school. Instruction for each student should be based on effective and valid assessments and ongoing progress monitoring.

Where We Stand as Educators, Parents, and Tax-Paying Citizens

In an increasingly complex and technological world, students must become literate and informed citizens in order to adapt to accelerating changes in the workplace and society as a whole. It begins with reading.

The recommendations in the 2016 *What Works Clearinghouse Foundational Skills Practice Guide* (Foorman et al., 2016) and its companion practice guide on Reading Comprehension (Shanahan et al., 2010) with the emphasis on a complete reading program, apply to all K-3 students. If all K-3 students were taught with evidence-based methodology from their first days in school, there would be far fewer students who would need to be retained in first grade or need special education. Costs to school districts would be substantially reduced (Farrall, n.d.). Discipline referrals would decline (McIntosh, Sadler, & Brown, 2012). And, best of all, the self-esteem of struggling readers would rise and they would indeed be “college and career ready” upon graduation.

If advocates for Reading Recovery cannot accept the overwhelming scientific evidence regarding the need for strong foundational components of early reading instruction and evidence-based training of teachers in these skills, appropriate student and program evaluation measures, sustainable positive long-term outcomes and reasonable costs, then we, as educators, parents of children with reading disabilities, and taxpayers, strongly recommend that schools do not adopt the Reading Recovery program.

References

- Brown, H., Dickersin, K., Card, D., & Littell, J. H. (2009). *Report of the What Works Clearinghouse Expert Panel*. Retrieved from https://www.researchgate.net/publication/234604319_Report_of_the_What_Works_Clearinghouse_Expert_Panel
- Chapman, J. W., & Tunmer, W. E. (2015, July). The literacy performance of ex-Reading Recovery students between two and four years following participation on the program: Is this intervention effective for students with early reading difficulties? Invited address at the 39th Annual Conference of the International Academy for Research in Learning Disabilities (IARLD), Vancouver, Canada.
- Chapman, J. W., & Tunmer, W. E. (2016). Is Reading Recovery an effective intervention for students with reading difficulties? A critique of the i3 scale-up study. *Reading Psychology*, 37(7), 1025–1042.
- Cheung, A. C. K., & Slavin, R. E. (2016). How methodological features affect effect sizes in education. *Educational Researcher*, 45(5), 283–292. Retrieved from <http://journals.sagepub.com/doi/pdf/10.3102/0013189X16656615>
- Clay, M. M. (1991). Reading Recovery surprises. In D. DeFord, C. A. Lyons, & G. S. Pinnell (Eds.), *Bridges to literacy* (pp. 55–74). Portsmouth, NH: Heinemann.
- Clay, M. (2005a). *Literacy lessons: Designed for individuals, part one*. Auckland, New Zealand: Heinemann Education.
- Clay, M. (2005b). *Literacy lessons: Designed for individuals, part two*. Auckland, New Zealand: Heinemann Education.
- Denton, C. A. (2010). Reading disabilities? Reading difficulties? Dyslexia? ...Making sense of it all. Retrieved from <https://www.texasldcenter.org/files/resources/cec10-denton.pdf>
- Denton, C. A., Ciancio, D. J., & Fletcher, J. M. (2006). Validity, reliability, and utility of the Observation Survey of Early Literacy Achievement. *Reading Research Quarterly*, 41, 8–34. doi:10.1598/RRQ.41.1.1
- Farrall, M. (n.d.) Reading Recovery: What do school districts get for their money? A review of the research. Retrieved from <http://www.wrightslaw.com/info/read.rr.research.farrall.htm>
- Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., . . . Wissel, S. (2016). *What Works Clearinghouse Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website <https://ies.ed.gov/ncee/wwc/PracticeGuide/21>
- Foorman, B., Fletcher, J., & Francis, D. (1997) A scientific approach to reading instruction. Retrieved from https://www.researchgate.net/publication/265265942_A_Scientific_Approach_to_Reading_Instruction
- Lane, H. (2014). Evidence-based reading instruction for grades K-5 (Document No. IC-12). University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center. Retrieved from <http://cedar.education.ufl.edu/tools/innovation-configurations/>
- Lyon, G. R., Fletcher, J. M., Torgesen, J.K., Shaywitz, S. E., and Chhabra, V. (2004). Continuing the discussion/ Preventing and remediating reading failure: A response to Allington. Retrieved from <http://www.ascd.org/publications/educational-leadership/mar04/vol61/num06/-Preventing-and-Remediating-Reading-Failure@-A-Response-to-Allington.aspx>
- Madison Metropolitan School District. (2014). Reading Recovery Evaluation. Retrieved from: <https://accountability.madison.k12.wi.us/files/accountability/2014-11-1%20-%20Reading%20Recovery%20Evaluation.pdf>
- May, H., Gray, A. M., Gillespie, J., Sirinides, P. M., Sam, C., Goldsworthy, H., . . . Tognatta, N. (2013). *Evaluation of the i3 scale-up of Reading Recovery* (Year One Report, 2011-12). CPRE Research Reports. Retrieved from http://repository.upenn.edu/cpre_researchreports/77
- May, H., Goldsworthy, H., Armijo, M., Gray, A. M., Sirinides, P. M., Blalock, T. J., . . . Sam, C. (2014). *Evaluation of the i3 scale-up of Reading Recovery* (Year Two Report, 2012-13). CPRE Research Reports. Retrieved from http://repository.upenn.edu/cpre_researchreports/2
- May, H., Gray, A., Sirinides, P., Goldsworthy, H., Armijo, M., Sam, C., . . . Tognatta. (2015). Year one results from the multisite randomized evaluation of the i3 scale-up of Reading Recovery. *American Educational Research Journal*. 52(3), 547–558.
- May, H., Sirinides, P.M., Gray, A., & Goldsworthy, H. (2016). Reading Recovery: An evaluation of the four-year i3 scale-up. *CPRE Research Reports*. Retrieved from http://repository.upenn.edu/cpre_researchreports/81
- McIntosh, K., Sadler, C., & Brown, J. (2012). Kindergarten reading skill level and change as risk factors for chronic problem behavior. *Journal of Positive Behavior Interventions*, 14(1), 17–28. Retrieved from www.researchgate.net/publication/233942516_Kindergarten_Reading_Skill_Level_and_Change_as_Risk_Factors_for_Chronic_Problem_Behavior

- Merrow, J. (2004, March 21). Get rid of retention and social promotion. *Education Week*. Retrieved from <http://www.edweek.org/ew/articles/2004/03/31/29merrow.h23.html>
- Moats, L. C. (2000). *Whole language lives on: The illusion of "balanced" reading instruction*. Washington, DC: DIANE Publishing. Retrieved from <http://www.nrrf.org/wp-content/uploads/2000/10/ED449465.pdf>
- National Association of School Psychologists. (2011). *Position statement: Grade retention and social promotion*. Bethesda, MD: Author. Retrieved from [http://www.nasponline.org/search/search-results?key words=Grade+retention+and+social+promotion.+Position+statement](http://www.nasponline.org/search/search-results?key%20words=Grade+retention+and+social+promotion.+Position+statement)
- National Center for Educational Statistics. (March 2017). NAEP Reading Performance: Figure 2. Retrieved from http://nces.ed.gov/programs/coe/indicator_cnb.asp
- National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Retrieved from <https://www.nichd.nih.gov/publications/pubs/nrp/documents/report.pdf>
- Ohio State University. (2013). Literacy Lessons overview. Retrieved from <http://www.rrosu.org/literacylessons/pdf/App-Reqs-noms-LL-June-2013a.pdf>
- Ohio State University. (2015, Sept. 21). Reading intervention boosts 400,000 children's school success. Retrieved from <https://ehe.osu.edu/news/listing/reading-intervention-boosts-400000-children-school-success>
- Ohio State University. (2016a). History of Reading Recovery in the United States. Retrieved from <http://www.rrosu.org/history.html>
- Ohio State University. (2016b). CPRE four-year evaluation: Evaluation of Reading Recovery expansion finds strong gains in student reading achievement. Retrieved from <http://www.rrosu.org/four-year-eval.html>
- Organisation for Economic Co-operation and Development. (2016). Programme for international student assessment. Retrieved from <https://www.oecd.org/pisa/>
- Pearson, P. D. (2004). The reading wars. *Educational Policy*, 18(1), 216–252. Retrieved from https://www.corwin.com/sites/default/files/upm-binaries/31886_Article1.pdf
- Picklo, D. M., & Christenson, S. L. (2005). Alternatives to retention and social promotion. *Remedial and Special Education*, 26(5), 258–268.
- Pinnell, G. S., DeFord, D. E., & Lyons, C. A. (1988). *Reading Recovery: Early intervention for at-risk first graders* (Educational Research Service Monograph). Arlington, VA: Educational Research Service.
- Pinnell, G. S., Lyons, C. A., DeFord, D. E., Bryk, A. S., & Seltzer, M. (1994). Comparing instructional models for the literacy education of high-risk first graders. *Reading Research Quarterly*, 29(1), 8–39.
- Reading Recovery Council of North America. (2002). What Evidence Says About Reading Recovery. Retrieved from https://readingrecovery.org/images/pdfs/Reading_Recovery/Research_and_Evaluation/What_Evidence_Says_Full_Report.pdf
- Reading Recovery Council of North America. (2010). Answers to common questions about Reading Recovery training. Retrieved from <https://readingrecovery.org/reading-recovery/training/common-questions-about-training>
- Reading Recovery Council of North America. (2012). *A principal's guide to Reading Recovery*. Worthington, OH: Reading Recovery Council of North America (RRCNA).
- Reading Recovery Council of North America. (2015a). 2016 National Reading Recovery & K-6 Literacy Conference. Retrieved from http://readingrecovery.org/images/pdfs/Conferences/NC16/nc16_program_complete.pdf
- Reading Recovery Council of North America. (2015b). Early literacy matters: Dyslexia, specific learning disabilities, and Reading Recovery. Retrieved from https://readingrecovery.org/images/pdfs/Reading_Recovery/Teaching_Children/early_literacy_matters_brief-2015.pdf
- Reading Recovery Council of North America. (2015c). Standards and Guidelines of Literacy Lessons in the United States. Retrieved from https://readingrecovery.org/images/pdfs/NATG/ll_standards_guidelines_2015rev.pdf
- Reading Recovery Council of North America. (2015d). Standards and guidelines of Reading Recovery in the United States. Retrieved from https://readingrecovery.org/images/pdfs/Reading_Recovery/Implementation/rr_standards_and_guidelines_7ed_2015.pdf
- Reading Recovery Council of North American Trainers Group. (2015e). Rationales and guidelines for selecting the lowest-achieving first-grade students for Reading Recovery. Retrieved from https://readingrecovery.org/images/pdfs/NATG/student_selection_guidesheet_05-15-15.pdf
- Reading Recovery Council of North America (2016a). Literacy Lessons extends expert teaching to special

- populations. Retrieved from <https://readingrecovery.org/literacy-lessons/literacy-lessons-overview>
- Reading Recovery Council of North America (2016b). Increase Literacy Expertise in the Schools. Retrieved from https://readingrecovery.org/images/pdfs/Literacy_Lessons/specialist_teachers_literacy_lessons_rev1_2016.pdf
- Reading Recovery Council of North America. (2016c). 2017 National Reading Recovery & K-6 literacy conference. Retrieved from <http://my.readingrecovery.org/docs/ReadingRecoveryNC17.pdf>
- Reading Recovery Council of North America. (2016d). Final independent research report finds i3 scale-up of Reading Recovery 'highly successful'. Retrieved from <https://readingrecovery.org/reading-recovery/research/effectiveness/i3-scale-up-evaluation>
- Reading Recovery Council of North America. (2016e). Reading Recovery lessons. Retrieved from <https://readingrecovery.org/reading-recovery/teaching-children/lessons>
- Rodgers, E. (2016). Scaling and sustaining an intervention: The case of Reading Recovery. *Journal of Education for Students Placed at Risk*, 21(1), 10–28. Retrieved from <https://eric.ed.gov/?id=EJ1089831>
- Schmitt, M. C., Askew, B. J., Fountas, I. C., Lyons, C. A., & Pinnell, G. S. (2005). *Changing futures: The influence of Reading Recovery in the United States*. Worthington, OH: Reading Recovery Council of North America.
- Schneider, A. (2009). A Reading Recovery guide for principals. Retrieved from https://literacy.madison.k12.wi.us/files/reading/RR_PRINCIPAL_OBSERVATION_GUIDE_COMPLETE-4-6-09.pdf
- Schwartz, R. M. (2005). Literacy learning of at-risk first-grade students in the Reading Recovery early intervention. *Journal of Educational Psychology*, 97(2), 257–267.
- Shanahan, T. (2014, November 4) Unbalanced comments on balanced literacy [Blog post]. Retrieved from <http://shanahanonliteracy.com/blog/unbalanced-comments-on-balanced-literacy#sthash.FlCXWLU.dpbs>
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/PracticeGuide.aspx?sid=14>
- Simons, D. J., Boot, W. R., Charness, N., Gathercole, S. E., Chabris, C. F., Hambrick, D. Z., & Stine-Morrow, E. A. L. (2016). Do “brain-training” programs work? *Psychological Science in the Public Interest*, 17(3) 103–186. Retrieved from http://www.cogsci.northwestern.edu/events/2016-2017-events/simonsEtAl_2016-BrainTraining.pdf
- Smith-Burke, M., Trinkka, M., Pinnell, G., Jackson, M., Wey, S., Askew, B., & Hambright-Brown, E. (2002). A principal's guide to Reading Recovery. Retrieved from <http://files.eric.ed.gov/fulltext/ED471826.pdf>
- Tingle, L., Schoeneberger, J., & Algozzine, B. (2012). Does grade retention make a difference? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 85(5), 179–185. Retrieved from <http://dx.doi.org/10.1080/00098655.2012.679325>
- Torgesen, J. K. (2002). The prevention of reading difficulties. *Journal of School Psychology*, 40(1), 7–26.
- Travers, J. C. (2017). Evaluating claims to avoid pseudoscientific and unproven practices in special education. *Intervention in School and Clinic*, 52(4), 195–203. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/1053451216659466>
- Tunmer, W. E., Chapman, J. W., Greaney, J. E., Prochnow, J. E., & Arrow, A. (2013). Reading Recovery and the failure of the New Zealand national literacy strategy. *Learning Difficulties Australia Bulletin*, 45(3). Retrieved from https://www.ldaustralia.org/BULLETIN_NOV13-RR.pdf
- University of Oregon Center on Teaching and Learning. (n.d.). Five big ideas in beginning reading. Retrieved from: http://reading.uoregon.edu/big_ideas/
- U.S. Department of Education. (2010). Investing in Innovation (i3) Reading Recovery Scale-Up Project Narrative. Retrieved from <https://www2.ed.gov/programs/innovation/2010/narratives/u396a100027.pdf>
- Vellutino, F. R., Fletcher J. M., Snowling, M. J., & Scanlon, D. M. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? *Journal of Child Psychology and Psychiatry*, 45(1), 2–40. Retrieved from <http://www.dr-hatfield.com/educ538/docs/Vellutino,+etal+2004.pdf>
- West, M. R. (2012). Is retaining students in the early grades self-defeating? Center for Children and Families, Brookings Institute. Retrieved from <https://www.brookings.edu/research/is-retaining-students-in-the-early-grades-self-defeating/>
- What Works Clearinghouse. (2008). Intervention: Reading Recovery. Washington, DC: U.S. Department of Education, Institute of Education Sciences. Retrieved from https://archive.org/stream/ERIC_ED503466#page/n0/mode/2up
- What Works Clearinghouse. (2013). Intervention: Reading Recovery. Washington, DC: U.S. Department of

- Education, Institute of Education Sciences. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_readrecovery_071613.pdf
- What Works Clearinghouse. (2014). *What Works Clearinghouse procedures and standards handbook version 3.0*. Washington, DC: US Department of Education, Institute of Education Sciences. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/referenceresources/wwc_procedures_v3_0_standards_handbook.pdf
- What Works Clearinghouse. (2017) Key criteria used in WWC reviews of single-case design research. Retrieved from https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc_scd_key_criteria_011017.pdf
- What Works Clearinghouse. (2016). WWC review of Reading Recovery: An evaluation of the four-year i3 scale-up. Washington, DC: US Department of Education, Institute of Education Sciences. Retrieved from <https://ies.ed.gov/ncee/wwc/study/32027>
- Wrightslaw. (n.d.). Experts say Reading Recovery is not effective, leaves too many children behind: An open letter from reading researchers. Retrieved from <http://www.wrightslaw.com/info/read.rr.ltr.experts.htm>
- Wright, P., & Wright, P. (2011). What you need to know about IDEA 2004: Specific learning disabilities: Discrepancy & response to intervention models. Wrightslaw. Retrieved from www.wrightslaw.com/idea/art/ld.rti.discrep.htm
- Yamamoto, K., & Byrnes, D. A. (1987). Primary children's ratings of the stressfulness of experiences. *Journal of Research in Childhood Education*, 2, 117–121.
- Youman, M., & Mather, N. (2015). Dyslexia laws in the USA: An update. *Perspectives on Language and Literacy*, 41, 10–18. Retrieved from <https://app.box.com/s/xb7gv06g08moq4eczmcfarzrcq9ue3ie>

Pamela Cook is a former special educator and education advocate for children with disabilities in Pennsylvania schools through ABC Consulting Services. She's been an LDA member for over 25 years and a speaker at LDA's 2013 and 2014 International Conferences.

Deborah R. Rodes, an LDA member for 30 years, has served as president of her LDA local affiliate, president of the LDA of Pennsylvania, and board member of the LDA of America. Employed by the Parent Education Network, a State Parent Training and Information Center, she worked as a school age coordinator.

Kay L. Lipsitz, an LDA member for 30 years and board member of the LDA of Pennsylvania, has served as Executive Director of the Parent Education Network of Pennsylvania, a federally funded Parent Training and Information Center until her retirement in 2014.

Please send correspondence to pacook44@gmail.com