

Product Evidence Base



Lexia[®] LETRS[®] Efficacy Research

September 2022

Lexia[®]
ALL FOR LITERACY

Lexia
 **LETRS[™]**

Introduction

Lexia® Learning is the Structured Literacy expert. For more than 30 years, the company has focused solely on literacy and today provides a full spectrum of solutions for both students and teachers. Included in the Lexia® portfolio is Language Essentials for Teachers of Reading and Spelling, 3rd Edition (*LETRS*®). This document summarizes the efficacy research studies that demonstrate the evidence base for LETRS.

LETRS teaches the skills needed to master the fundamentals of reading instruction – phonological awareness, phonics, fluency, vocabulary, comprehension, writing, and language. It is designed for educators with an interest in improving literacy. Educators who complete LETRS gain the deep knowledge needed to be literacy and language experts in the science of reading.

Evidence Overview

5

**Doctoral
Dissertations**

2

**Federally
Funded
Third-Party
Evaluations**

1

**External Peer
Reviewed
Article**

Key Findings

Collectively, studies have found:

- **Improved Teacher Knowledge and Practice** – Teachers who completed LETRS training demonstrated higher levels of knowledge and improved levels of instructional practice across a variety of objective and self-rated measures.
- **LETRS Often Implemented with Other Interventions** – LETRS has been used alongside other educational interventions to positively influence student outcomes.
- **Implementation Linked to Improved Outcomes** – Positive teacher outcomes were most likely to be observed in studies that reported moderate to high levels of implementation.

LETRS has evolved through multiple editions over the years. Originally developed by renowned literacy expert, Dr. Louisa Moats, LETRS was designed to help teachers learn and apply scientific, research-supported methods to improve reading outcomes and prevent reading difficulties. LETRS 3rd Edition introduced new features to enhance the program’s efficacy and user engagement, including an online delivery model, engaging videos, embedded assessments, reporting capabilities on user progress, and the option for users to receive credit from two universities for completion of college coursework. The content of LETRS, which was revised to reflect the latest scientific research, was also divided into two four-unit volumes as opposed to the modules of previous editions.

The studies summarized in the tables on the following pages provide an evidence base for the efficacy of LETRS. Included are early studies on LETRS 1st and 2nd Editions – together with more recent empirical studies on LETRS 3rd Edition. Studies on earlier editions demonstrate a rationale that LETRS 3rd Edition would be effective for teachers and students. Similarly, studies where LETRS was paired with other interventions, like a curricular program or literacy coaches, demonstrate a rationale that LETRS is effective because positive outcomes cannot be attributed to either intervention individually. Though research on LETRS 3rd Edition is limited, the weight of empirical evidence suggests it can improve teacher knowledge and instruction when used as intended. Evidence for LETRS efficacy is described relative to the categories created by the Every Student Succeeds Act (ESSA), described further on the right side of the page.

What’s ESSA Evidence?

Tier 1 – Strong Evidence:

Supported by at least one well-designed and well-implemented experimental study.

Tier 2 – Moderate Evidence:

Supported by at least one well-designed and well-implemented quasi-experimental study.

Tier 3 – Promising Evidence:

Supported by at least one well-designed and well-implemented correlational study with statistical controls for selection bias.


Tier 4 – Demonstrates a Rationale:


Based on high-quality research findings or positive evaluation that a program is likely to improve student outcomes or other relevant outcomes and includes ongoing efforts to examine the effects of such a program.


LETRS Evidence Base


Title	LETRS Edition ¹	Grade Levels	# of Teachers	Outcomes		Student Group	
				Teacher	Student		
LETRS-Only Program Evaluations							
1	<i>Teacher Knowledge, Beliefs, and Instructional Practices in Early Literacy: A Comparison Study</i>	3 rd	1	17	Yes	-	Urban
2	<i>The Impact of Mississippi's K-3 Literacy Initiative Professional Development</i>	3 rd	K-3	78	Yes	-	-
3	<i>Educator Outcomes Associated with Implementation of Mississippi's K-3 Early Literacy Professional Development Initiative</i>	2 nd	K-3	7,638	Yes	-	High-Needs
4	<i>Effects of the LETRS® Reading Professional Development on Teachers' Self-Efficacy and Reading Instruction</i>	2 nd	3-5	174	Yes	-	-
5	<i>The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement</i>	1 st	2	270	Yes	Yes	Urban
LETRS and Other Paired Evaluations							
6	<i>Improving Reading Achievement at Greenleaf Elementary School: A Mixed Methods Study</i>	2 nd	3	10	-	Yes	High-Needs
7	<i>The Impact Literacy Coaches Have on Mississippi's Lower-Performing Schools</i>	2 nd	K-3	63	-	Yes	High-Needs
8	<i>Initial Progress of Children Identified with Disabilities in Michigan's Reading First Schools</i>	1 st	2	-	-	Yes	Students with Disabilities

¹ LETRS 1st Edition consisted of 10 modules delivered through print material and in-person professional development sessions. LETRS 2nd Edition consisted of 12 modules delivered through print material, in-person professional development sessions, and an online platform. LETRS 3rd Edition consists of two four-unit volumes delivered through an online platform, print material, and optionally, professional learning unit sessions.

1		Teacher Knowledge, Beliefs, and Instructional Practices in Early Literacy: A Comparison Study
LETRS Edition	3 rd Edition	<p>This study compared differences in teacher knowledge, beliefs and self-reported instructional practice in first-grade teachers who completed LETRS 3rd Edition Volume 1 and teachers who did not. Teachers were from 14 ethnically and socioeconomically diverse elementary schools in a large, urban school district in the Midwest United States. Eleven facilitators qualitatively monitored teacher progress through the LETRS online platform. The posttest measures were the Teacher Beliefs Survey and the Teacher Knowledge and Practice Survey. Teachers who completed LETRS had positive beliefs about code-based instruction, but they were not significantly different from teachers in the comparison group. LETRS teachers had significantly higher levels of content and skill knowledge. They also had higher levels of contextual early literacy knowledge, but the difference was not statistically significant.</p>
Planned Treatment	Volume 1	
Components	Online Platform + Print and Professional Learning	
Grade Levels	1	
# of Schools	14	
# of Teachers	17	
Assessments	Teacher Beliefs Survey, Teacher Knowledge and Practices Survey	
Study Duration	10 months	
Outcomes	Content & Skill Knowledge	
ESSA Tier	Level 4 – Demonstrates a Rationale	
Report Type	External Evaluation	
State(s)	Midwestern	
Target Demographic	Urban	
Year	2020	

2		The Impact of Mississippi’s K-3 Literacy Initiative Professional Development
LETRS Edition	3 rd Edition	<p>This study describes the results of a survey that was administered to teachers of K-5 students who completed one or more units of LETRS 3rd Edition between the spring of 2019 to the fall of 2020. The survey assessed teachers’ perceptions of whether LETRS improved their abilities, instructional practice, and student outcomes. Teachers somewhat to strongly agreed that LETRS improved their knowledge of literacy instruction, skills in literacy instruction, daily classroom instruction, and climate of instructional improvement. Teachers somewhat agreed that LETRS improved their student’s literacy skills and achievement. A main goal of the study was to examine whether the number of LETRS units completed was related to the survey responses, but results were inconsistent and not statistically significant. Additionally, the study was conducted during the COVID-19 pandemic, so the results may not generalize to other contexts.</p>
Planned Treatment	1-8 Units	
Components	Online Platform + Print and Professional Learning	
Treatment Uptake	33% of Teachers Completed LETRS	
Grade Levels	K-5	
# of Teachers	78	
Assessments	Researcher-Developed Survey	
Study Duration	1 Year	
Outcomes	Self-Rated Knowledge & Skills	
ESSA Tier	Level 4 – Demonstrates a Rationale	
Report Type	External Evaluation	
State(s)	Mississippi	
Year	2021	

3		 Educator Outcomes Associated with Implementation of Mississippi’s K-3 Early Literacy Professional Development Initiative	
LETRS Edition	2 nd Edition	<p>This report describes results from an evaluation funded by the Institute of Educational Sciences (IES) of a statewide professional development initiative in Mississippi in which all K-3 educators were provided access to LETRS from January of 2014 to June of 2016. A subsample of 63 high-need schools were also provided with literacy coaches. The Mississippi Department of Education administered a survey of teacher knowledge to all participants twice each year.</p> <p>Average teacher knowledge increased from the 48th percentile in the spring of 2014 to the 59th percentile in the fall of 2015. Instructional practices were rated through observations of 316 teachers in the high needs schools from winter of 2014 to spring of 2015. Quality of instruction increased from the 31st to 58th percentile. Student engagement during instruction increased from the 37th to 53rd percentile. Teaching competencies increased from the 30th to 44th percentile.</p>	
Planned Treatment	8 Modules		
Components	Online Platform + Print and Professional Learning		
Treatment Uptake	29% of K-3 Educators Completed the 8 Assigned Modules		
Grade Levels	K-3		
# of Teachers	7,638		
Assessments	Teacher Knowledge of Early Literacy Skills (TKELS), Coach’s Classroom Observation Tool		
Study Duration	2 Years		
Outcomes	Teacher Knowledge & Practice		
ESSA Tier	Level 4 – Demonstrates a Rationale		
Report Type	External Evaluation		
State(s)	Mississippi		
Target Demographic	All Mississippi K-3 Educators, High-Needs		
Year	2018		

4		 Effects of the LETRS® Reading Professional Development on Teachers’ Self-Efficacy and Reading Instruction	
LETRS Edition	2 nd Edition	<p>This study describes a comparison of self-efficacy and professional responsibility in a group of 85 teachers who used LETRS and a group of 89 teachers who did not. Teachers in a convenience sample completed a survey that assessed their demographics, self-efficacy, self-rated instructional reading practice, and the number of LETRS modules they completed. Most teachers in the study completed fewer than half of the LETRS modules and only three percent of teachers completed all twelve modules. Compared to the non-LETRS comparison group, LETRS teachers scored higher in student engagement self-efficacy, the same in instructional strategies self-efficacy, and lower in classroom management and instructional reading practice, but no difference was statistically significant. The study does not account for differences in baseline characteristics between groups or the possibility of selection bias.</p>	
Planned Treatment	12 modules		
Treatment Uptake	3% of Teachers Completed all 12 Modules		
Grade Levels	3-5		
# of Teachers	174		
Assessments	Teachers’ Sense of Efficacy Scale & the Framework for Teaching		
Study Duration	2 Years		
Outcomes	Self-Efficacy & Professional Practice		
ESSA Tier	Level 4 – Demonstrates a Rationale		
Report Type	External Evaluation		
State(s)	Northeastern		
Year	2021		



The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement

<i>LETRS Edition</i>	1 st Edition
<i>Planned Treatment Components</i>	6 of 12 Modules 8 In-Person Seminar Days
<i>Treatment Uptake</i>	93.5% of Planned PD Delivered
<i>Grade Levels</i>	2
<i># of Schools</i>	90
<i># of Teachers</i>	270
<i># of Students</i>	5,530
<i>Assessments</i>	Reading Content and Practice Survey (RCPS), Classroom Observations, District Literacy Measures
<i>Study Duration</i>	2 Years
<i>Outcomes</i>	Reading Content Knowledge Instructional Practice
<i>ESSA Tier</i>	Level 4 – Demonstrates a Rationale
<i>Report Type</i>	External Evaluation
<i>State(s)</i>	Eastern & Midwestern
<i>Target Demographics</i>	Urban
<i>Year</i>	2008

This study funded by the Institute of Educational Sciences (IES) used a randomized control trial to compare the effects of (1) an 8-day LETRS seminar, (2) the 8-day LETRS seminar paired with instructional coaching from the Consortium on Reading Excellence, and (3) business-as-usual control conditions. The study reported that **both the LETRS seminar and the LETRS seminar plus coaching significantly improved teacher knowledge and teacher use of explicit instruction**. LETRS and LETRS plus coaching respectively had the following effect sizes: .37 and .38 on teacher knowledge, .35 and .39 on word-level knowledge, .21 and .26 on meaning-level knowledge, .32 and .53 on use of explicit instruction, and .08 and .03 on student reading scores. The treatment groups also had positive effects on meaningful knowledge and student reading achievement, but the effects were not statistically significant.

Pairing LETRS with Other Interventions

The primary purpose of LETRS is to improve teacher knowledge and instructional practice. It is not an instructional intervention for students. Many researchers and state education agencies have therefore paired LETRS with other interventions, such as literacy coaches and instructional programs, to promote improved student reading outcomes. In the studies below, the researchers only tested the **combined effects of LETRS and other interventions**. Though the observed effects cannot be attributed to either LETRS or the other interventions, we describe them here as evidence of a rationale for the use of LETRS.

6



Improving Reading Achievement at Greenleaf Elementary School: A Mixed Methods Study

LETRS Edition	2 nd Edition
Planned Treatment	15 Sessions
Components	Online Platform + Print and Professional Learning
Treatment Uptake	9 of 10 Teachers Completed the Training
Grade Levels	3
# of Schools	1
# of Teachers	10
# of Students	47
Assessments	STAR Reading, Mississippi Academic Assessment Program (MAAP), Mississippi Kindergarten-3 Assessment (MKAS)
Study Duration	2 Years
Student Outcomes	STAR Reading Growth
ESSA Tier	Level 4 – Demonstrates a Rationale
Report Type	External Evaluation
State(s)	Mississippi
Target Demographics	High-Needs
Year	2018

In this mixed methods study, ten third-grade teachers completed 15 sessions of LETRS and implemented the Collaborative Classroom intervention. Growth scores for 47 of their students in the bottom quartile of reading performance were compared to their growth scores for the previous academic year. **Post-intervention growth scores were significantly higher than pre-intervention growth.** There was no improvement in the distribution of student proficiency ratings. **Ninety-eight percent of the students in the post-intervention year passed one of the required state achievement tests.** Because the LETRS training occurred alongside the implementation of Collaborative Classroom, the results cannot be attributed solely to LETRS or Collaborative Classroom.

7



The Impact Literacy Coaches Have on Mississippi's Lower Performing Schools

LETRS Edition	2 nd Edition
Grade Levels	K-3
# of Schools	4
# of Teachers	63
# of Students	1,208
Assessments	Early Literacy Student Achievement in Reading (STAR)
Study Duration	1 Year
Outcomes	Reading Growth
ESSA Tier	Level 4 – Demonstrates a Rationale
Report Type	External Evaluation
State(s)	Mississippi
Target Demographics	High-Needs
Year	2017

This study compared reading growth trends in four lower performing elementary schools in Mississippi. The Mississippi Department of Education supplied two schools with literacy coaches that had been trained in LETRS and the Transformational Coaching Process. The comparison schools were lower performing schools that did not receive literacy coaches. **Kindergarten students in schools with coaches had significantly higher growth levels than students in comparison schools.** First grade students had significantly lower levels of growth than students in comparison schools. There was no statistically significant difference in growth levels between groups in second and third grade.



<i>LETRS Edition</i>	1 st Edition	<p>This study examined reading development in second-grade students with specific learning disabilities following the implementation of Michigan's Reading First program. The Michigan Reading First program consisted of (1) LETRS training for general and specific education teachers, (2) progress monitoring with DIBELS, (3) flexible instructional grouping for students, and (4) structured and explicit instruction in the five components of early reading. Students identified with specific learning disabilities grew at the same rate as their peers without disabilities in reading comprehension, but grew more slowly in oral reading fluency, listening comprehension, and word analysis. The analysis does not compare the Reading First program to a comparison condition, so causal conclusions about the intervention cannot be drawn.</p>
<i>Grade Levels</i>	2	
<i># of Schools</i>	49	
<i># of Students</i>	1,512	
<i>Assessments</i>	DIBELS, Iowa Test of Basic Reading Skills	
<i>Study Duration</i>	2 Years	
<i>Outcomes</i>	Oral Reading Fluency, Word Analysis, Listening Comprehension, Reading Comprehension	
<i>ESSA Tier</i>	Level 4 – Demonstrates a Rationale	
<i>Report Type</i>	Peer-Reviewed Publication	
<i>State(s)</i>	Michigan	
<i>Target Demographics</i>	Students with Disabilities	
<i>Year</i>	2008	

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Lexia®

Lexia is the structured literacy expert. For over 35 years, the company has focused solely on literacy, and today provides a full spectrum of solutions for both students and teachers. With robust offerings for differentiated instruction, personalized learning, assessment, and professional learning, Lexia helps more learners read, write, and speak with confidence.

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