



URBAN
LIBRARIES
COUNCIL

TOOLKIT

Science of Reading Toolkit: Evidence-Based Approaches for Public Libraries

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Introduction:

Advancing Literacy through the Science of Reading

Libraries play a critical role in advancing literacy and ensuring equitable access to quality education. To support this mission, this Science of Reading Toolkit offers public libraries guidance on implementing evidence-based reading strategies that can make a meaningful difference in the lives of young readers. The toolkit is structured around key components essential for creating impactful youth literacy programs and recommended strategies for your library.

- **Center Equity:** Understand the importance of equity in literacy education and learn how to ensure that your programs are accessible and beneficial to all members of your community, particularly those who are most vulnerable.
- **Understand the Science of Reading:** Dive into the research and foundational principles that constitute the Science of Reading, providing a robust framework to inform your literacy initiatives.
- **Design with Community:** Learn how to collaboratively design literacy programs that resonate with your community's needs and values, ensuring relevance and effectiveness.
- **Embed Elements of Structured Literacy:** Explore how to incorporate structured literacy approaches into your library programs, focusing on explicit, systematic instruction that supports all learners, especially those with reading difficulties.
- **Prioritize, Plan, Implement:** Get practical advice on how to prioritize actions, plan strategically, and implement literacy programs that are sustainable and impactful.
- **Assess for Outcomes:** Discover methods for evaluating the success of your Science of Reading program, ensuring continuous improvement and the ability to demonstrate positive outcomes.

This toolkit is designed to empower libraries with the tools and knowledge needed to foster science-based literacy development in their communities, ensuring that every individual can become a confident and capable reader.

TOOLKIT SECTIONS

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I. Center Equity

For public libraries looking to deepen their equity practices, promoting equitable approaches to evidence-backed reading supports is essential.

Public library leaders must acknowledge and address the systemic barriers that hinder equitable access to literacy resources, culturally affirming books, and programs and services that promote the development of the “reading brain.” When the public library centers equity and prioritizes the most vulnerable children and youths, they can break predicted outcomes, including deficits in critical reading and learning skills, and address a [civil rights issue](#) of our era.

Embedding evidence-based strategies and tactics to boost young children’s reading knowledge is an urgent and crucial equity-based pivot for year-round programming. The [most recent national assessment school-aged students in the U.S.](#) found that only 33% of American children are reading at grade level. Using this data from the Nation’s Report Card, also known as the National Assessment of Educational Progress (NAEP), public libraries can optimize their services and programs to help children develop the skills needed to become fluent, confident readers.

However, through evidence-based strategies built from the body of research known as the Science of Reading, public libraries can pivot their services, programs, and collaborations to play an important role in ensuring all children read fluently and learn joyfully.

STRATEGIES

1. Learn about Bronfenbrenner’s Ecological Theory, a psychological framework that can be utilized to understand the complex systems that influence human development. Understanding this theory can help your staff better prioritize historically disinvested communities and understand how neighborhood affects opportunities to gain experience. Click here to [learn more about the Ecological Theory](#).
2. Prioritize children who have been historically left behind in reading. Target communities of color and children living in prevalent poverty with the highest interventions and increase book giveaways in these communities that you serve. Click here to [learn more about the opportunity gap using NAEP data](#).

II. Understand the Science of Reading and Communicate it Widely

The Science of Reading refers to a multidisciplinary body of research from the fields of psychology, educational research, neuroscience, and cognitive sciences that together form the basis of our scientific understanding of how children’s brains develop the ability to read fluently. Click here to [learn more on the scientific underpinnings of how children learn to read](#) and the converging science at the heart of structured literacy from the International Dyslexia Association.

Libraries should ensure that staff have access to thorough professional development opportunities to better understand the urgency of reading skills and the cognitive processes involved in reading acquisition and deep fluency. Effective professional development requires familiarity with the foundations of reading: early literacy practices, phonological awareness and phonics, fluency, vocabulary, and comprehension.

For library professionals to build background knowledge, they need a basic understanding of the brain’s neurobiological mechanisms, such as how the brain processes language. Recognizing that reading is not a basic biological process like walking or talking helps professionals appreciate the importance of language and background knowledge in reading.

STRATEGIES

1. Invest in professional development and train staff in the Science of Reading and structured literacy. Training courses, webinars and speaker series can help staff understand the urgency and importance of this civil rights issue. Consider hosting a staff-wide book club to discuss articles or books related to the Science of Reading. Additionally, libraries should train all levels of staff, from executives to administrative personnel, to ensure consistency and a thorough understanding across the organization. Encourage staff to listen to the groundbreaking podcast, [Sold a Story](#), from American Public Media.
2. Collaborate with school leaders to better understand the current reading curriculum in your community. Analyze the data from your local school districts and learn how to support schools in achieving their reading goals.
3. Screen the film *The Right to Read* with staff first, and then with community members. Pair the screening with community forums involving parents to discuss the film. [Visit TheRighttoReadFilm.com for information on licensing and viewing privileges](#). You can also [download the official discussion guide](#) to inspire conversation and feedback after the viewing.

III. Design with Community

Using authentic co-design principles to incorporate critical elements of structured literacy can transform services and collections for youth. Click here to [learn more about the importance of co-design with youth](#) from the Urban Libraries Council. When public libraries engage stakeholders from diverse backgrounds and center both community and youth voices, they can ensure programs are rooted in the unique needs and perspectives of the community.

The use of collaborative design fosters ownership and empowers community members. Through that, it can lead to effective reading and learning initiatives. Libraries should begin with focus groups that bring together diverse community voices, creating working teams to test prototypes and help promote and celebrate the program. Co-design fosters a collaborative culture based on respect, responsive program design, and the acceleration of successful outcomes for children. Click here to [learn about how co-design has been used by libraries to engage Latinx communities](#) experiencing prevalent poverty.

STRATEGIES

1. Engage with parents and caregivers to learn which reading supports, based on the Science of Reading, are most needed for their children's reading success. Click here to [learn more about ways to engage with the community](#) from the Annie E. Casey Foundation.
2. Consider forming youth advisory groups to provide feedback on booklists, displays, and new reader book groups. Elevating youth voices ensures authentic design.
3. Reinvigorate partnerships with schools by addressing the Science of Reading. Collaborate with school library leadership and reading specialists to understand their specific needs and the strategies you can use. You can learn more about how state-level educators are thinking about Science of Reading research in this [article from Education Week](#). Additionally, the National Council on Teacher Quality has a [state-by-state map of legislative updates](#) pertaining to reading instruction.



IV. Embed Elements of Structured Literacy / Science of Reading

Programmatic and public service elements can be adapted into youth services and family engagement strategies. From expanding critical early literacy programming to curating collections of decodable books focused on specific phoneme-grapheme mapping and embedding reading specialists trained in structured literacy for homework-help programs, the library plays a vital role in enhancing skills and offering opportunities to practice decoding, encoding, and fluent, deep reading.

STRATEGIES

1. Add collections of evidence-based community resources, such as decodable books, to help new readers work on specific letter-sound correspondences. [Read here to learn about how Toledo Lucas County Public Library](#) is embracing this new collection and click here to access [The Reading League's list of recommended decodable titles](#).
2. Prioritize services that align with structured literacy. Consider bringing in a paid reading specialist or expanding your homework help program to offer targeted assistance with decoding and reading fluency, especially during the critical summer months. Follow the link to [read about San Francisco Public Library's FOG \(Free Orton-Gillingham\) program](#) as an example of how tutoring can support reading instruction.
3. Create programs that incorporate elements of letter-sound correspondence, such as the [Chicago Public Library's Jump Into Reading initiative](#).
4. Boost language comprehension by prioritizing books with diverse characters and settings, which allow children to see themselves. This approach supports the second strand of Scarborough's Reading Rope. Providing books that act as mirrors helps encourage children to read for pleasure. [Research from First Book](#) shows that children are more inclined to read for pleasure and for longer periods when they have access to diverse characters, settings, and themes. Consider creating book lists in collaboration with a reader's advisory council of youth.

V. Prioritize, Plan and Partner

Prioritizing structured literacy in youth services requires trained staff to plan and implement programs effectively. As the library sets goals for participants around decoding, orthographic mapping, and other elements of structured literacy practice, it will be increasingly important to ensure staff are trained and collections of decodable books, phonics games, and other literacy supports are prepared. If a reading or literacy specialist is added to summer offerings, it should be budgeted, scheduled, and marketed to the community.

Set clear goals and objectives for programs and services, focusing on the specific literacy skills that children will develop. This might include objectives related to the number of opportunities for children to practice phonemic awareness, engage in phoneme-grapheme mapping, and develop vocabulary and reading comprehension. Partnering with schools and literacy specialists will help build important connections between schools and the library and encourage parents and children to visit the library.

STRATEGIES

1. Prioritize communities experiencing prevalent poverty and those with Title I schools, which are schools with a high percentage of children eligible for free or reduced lunch. Work with school administrators to prioritize children in the highest-need demographics for book giveaways and targeted interventions.
2. Include phonics-related collections in your children's library, so that programs and services can effectively incorporate elements of structured literacy. Use results from focus groups to plan programs, play materials, circulating backpacks with phonics supports, new reader book clubs, and services such as reading specialists in the library to support new readers. Communicate this with staff and encourage them to discuss it with parents and caregivers and during school visits throughout the year.
3. Plan for summer programs and books that connect to structured literacy and can help young readers practice critical skills in decoding and encoding. Follow the link to [read about five ways to boost summer learning with Science of Reading elements](#) from the Urban Libraries Council.

VI. Assess for Outcomes

Planning for the measurement of reading attainment or skill gain will require a shift in programming and close partnership with school districts, parents, and those involved in the programs themselves. Logic models, surveys, and pre- and post-testing can all be valuable tools for libraries in determining which reading interventions are most effective.



STRATEGIES

1. Logic models can significantly help public libraries assess the effectiveness of programs. By defining inputs, activities, outputs, and impacts, a well-constructed logic model provides a framework for understanding the summer learning program's purpose, processes and anticipated results. A strong logic model helps library leadership monitor continuous effectiveness and allows leaders to adapt the program to better meet the needs of the audience. [Here is a logic model template to use.](#)
2. Embedded reading specialists as homework helpers may be able to conduct pre- and post-tests for new and emerging readers. Measuring growth in reading is a critical way to ensure that library services and programs are effective.
3. Survey parents and caregivers to ensure the program meets family needs and supports continuous improvement.

Conclusion:

The guidance offered in this toolkit aims to equip libraries with the knowledge and tools necessary to create impactful youth literacy programs. By embracing these evidence-based approaches, libraries can ensure that their services are inclusive, relevant and effective, ultimately fostering a more literate and empowered community. Every child deserves the opportunity to become a confident and capable reader, and this toolkit is a vital resource in achieving that goal.

GET INVOLVED: Join the Education Leaders Member Community

ULC Member Communities are specialized peer networks where urban library staff can connect, share insights, and discuss relevant topics. Library staff are encouraged to join these communities to engage with peers, share challenges, and explore innovations in their work.

Stay informed on the Science of Reading by joining the Education Leaders Member Community and discuss how libraries can expand and strengthen their impact in meeting the educational needs of patrons. Sign up on the ULC Member Hub at connect.urbanlibraries.org. You must be a ULC member to join.

STAY IN TOUCH!

We would love to hear if this guide helps you advance your early literacy programs and commitment to training your library staff more about the Science of Reading. Email the Urban Libraries Council at info@urbanlibraries.org.

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GLOSSARY

Background Knowledge is critical in Scarborough’s Reading Rope in the language comprehension strand. Background knowledge is the foundation upon which reading comprehension is built. It refers to the existing knowledge a reader has and includes not only information but also experiences, cultural insights and language competence.

Comprehension is one of the core elements of fluent reading. Comprehension means the reader can understand and make meaning of words, using background knowledge, critical thinking and inference.

Decodables are small books, typically paperback, which are specifically written to help a developing reader practice and reinforce specific phonics principles. These books are populated with words that allow the developing reader to practice a specific element of phonemic decoding and feature repetitive and predictable language.

Decoding refers to the foundational reading skill of translating written symbols into specific sounds and to blend these into words. Decoding involves letter-sound knowledge, understanding phonetic rules and patterns and using it to correctly read and pronounce words.

Encoding refers to the foundational reading skill of translating sounds into symbols. Encoding can be thought of as spelling and writing. It is essential to reading as decoding and requires the new reader to have a grasp of letter, sound and symbol correspondence.

Fluency refers to a reader’s ability to read accurately, quickly, and with appropriate expressions.

Grapheme is the written symbol—a letter or letters—that represent a sound. It can be a single letter such as /a/ or a double letter pair such as /ai/. Understanding grapheme-phoneme correspondence is primary to phonetic decoding.

Language Comprehension is one of the foundations of fluent reading. It means that the reader understands the words and their meanings and inferences and how words fit together to form sentences that have meaning. It is critical to reading as it helps the reader connect the word to meaning.

GLOSSARY (continued)

Orthographic mapping refers to the process of storing a word permanently in the brain so that it can become a “sight word” and does not require the cognitive work of decoding. It requires alphabetic principles, phonemic awareness, letter-sound knowledge, morphology and orthographic fluency.

Phonics refers to an instructional approach which builds on letter-sound relationship to create an ability to put letters and sounds together in words.

Phoneme is the sound attached to the symbol or letter. It carries meaning and helps a reader distinguish between words (ex. Cat vs. Mat).

Phonemic Awareness refers to the ability to hear, identify, and manipulate individual phonemes in spoken language. Phonemic awareness is a critical part of early literacy development as it helps a reader understand the letter-sound relationship.

The Scarborough Reading Rope is a visual framework by which we can understand how the elements involved in the Simple view of reading must come together to form an automatic and strategic ‘rope’ of learning. It comes the two stands of reading found in the Simple View of Reading, decoding and language comprehension, and expands on these concepts.

Science of Reading refers to the multi-sector fields of study from psychology, neuroscience, linguistics, and education to understand the cognitive processes involved in reading. From this comes targeted and evidence-based approaches to reading instruction that focus on five elements: phonemic awareness, phonics, vocabulary, fluency and comprehension.

Simple View of Reading refers to a model that describes reading comprehension as the product of two elements: decoding and language comprehension.

Structured Literacy refers to an instruction approach based on Science of Reading. It ensures all students, especially those with reading difficulties, develop strong foundational skills including decoding and encoding.

Vocabulary refers to the body of words and their meanings which readers possess. Vocabulary is critical for a reader as it helps them make meaningful connections to what they read and comprehend.