



Lexercise ESSA Packet

RESEARCH-BASED DESIGN & LOGIC MODEL



Lexercise is an online education platform that offers testing and treatment for learning disabilities such as dyslexia, dysgraphia, and more. The platform includes structured literacy lessons and engaging practice games to support learners in the classroom, in therapeutic settings, and at home.

UNDERSTANDING ESSA Evidence



OVERVIEW

Evidence guidance under the Every Student Succeeds Act (ESSA) are designed to ensure that states, districts, and schools can identify programs, practices, products, and policies that work across various populations.

The Every Student Succeed Act (ESSA) requires education programs to provide evidence of effectiveness and impact in order to be federally supported. The Department of Education's Office of Educational Technology provides standards to assess the varying levels of strength of research for education products.

The categories for ESSA Evidence are: strong, moderate, and promising evidence of effectiveness, or demonstrates a rationale to be effective.

This product meets the requirements for Level 4: Demonstrates a Rationale

- ✓ Includes a logic model based on research
- ✓ Research documentation connects academic research studies to features in the product that support learning
- ✓ A study is planned and/or currently underway
- ★ A third-party research organization has reviewed the documentation for ESSA validation



When product designers leverage learning sciences to design their products, educators can better target instruction, and students' skills soar. Through interviews with the product designers, an evaluation of their research-informed activities, and an investigation of student feedback, this product meets the criteria for LXD Research's ESSA Level 4 Evidence.

– Rachel Schechter, Ph.D., Founder of LXD Research

What is Lexercise?

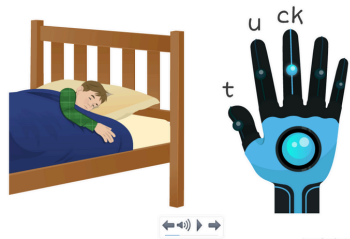
Lexercise is an online education platform that offers testing and treatment for learning disabilities such as dyslexia, dysgraphia, and more. The platform includes structured literacy lessons and engaging practice games to support learners in the classroom, in therapeutic settings, and at home.

What sets Lexercise apart from other literacy programs is the embedded flexibility of the program, and the intentional focus on engaging online games that instill knowledge from the lessons and motivate students to continue through the program. Lexercise is committed to constant innovation based on real-time data and research.

Lexercise Structured Literacy Curriculum Materials include lessons, games, and additional activities

What are the Lexercise Lessons?

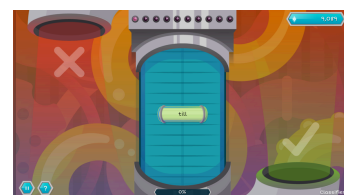
- Consists of 44 lessons following a structured literacy scope and sequence (organized into 26 levels)
- Employ an explicit, systematic, cumulative, and diagnostic instruction style
- Utilize a multimedia player, which can be used in the classroom or online
- Focus on pre-selected learning objectives (see scope and sequence)
- Provide guided conversational prompts for instructors
- Organized into 7 stations:
 - Sounds & Letters
 - Decoding & Spelling
 - Word Parts
 - Definition Building
 - Sentence Reading
 - Comprehension
 - Sentence Writing



Try out a Lexercise Lesson [HERE](#)

What are the Lexercise Practice Games?

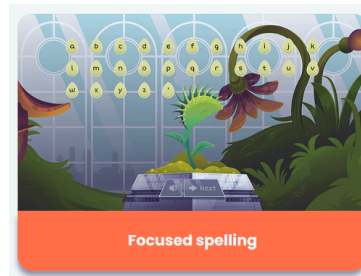
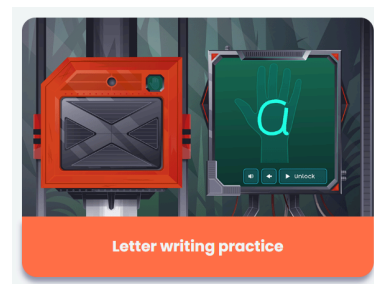
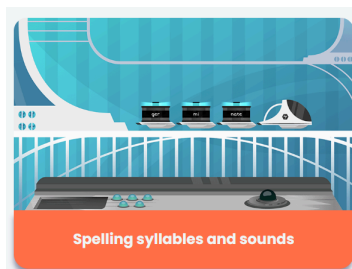
Lexercise goes beyond only delivering lessons by integrating daily practice games that are engaging and centered on the key topics from the corresponding lesson as well as previous lessons. The interactive games allow for meaningful practice that produce rich data on the exact points of difficulty that students are facing, allowing instructors to adjust the lessons or provide additional support as needed.



Lexercise recommends that students engage in 4 days of 15 minutes of practice for each lesson in the curriculum. Instructors can advance to the next lesson once they are comfortable with their students' mastery of the lesson concepts and utilize the dashboard to track their students' progress as they go.

Lexercise Practice Game Materials

- Interactive games with futuristic visual design intended to be engaging for any age
- 8 'floors' in the game tower, structured to cover content from the 26 lessons
 - Starting at the ground floor, students begin practicing their skills
 - As they progress in their skill, they advance to higher floors of the tower
- 9 practice game formats used across all levels:
 - Letter Writing Practice
 - Spelling Practice
 - Decoding Practice
 - Identifying Concepts
 - Managing Anxiety
 - Isolating Speech-sounds
 - Reviewing Concepts
 - Focused Spelling
 - Spelling Syllables and Sounds
- Can be played on any device with internet



Try out the Lexercise Practice games [HERE](#)

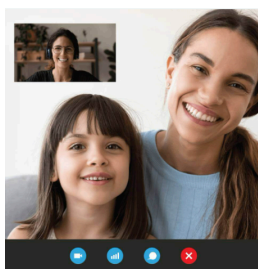
What are the Lexercise Subscription Types?

The *Lexercise Structured Literacy Curriculum*™ is used in all 3 Lexercise subscription types:



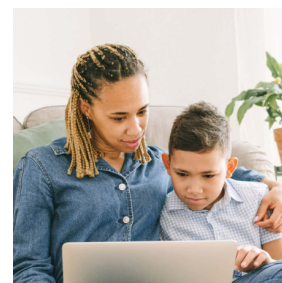
Lexercise for Schools

Teachers can follow the online program and deliver the lessons in one-on-one or small group settings.



Professional Therapy

Students work one-on-one with certified dyslexia therapists to get customized lessons following the curriculum and interactive help.



Basic Therapy

Parents can follow the structured literacy curriculum in the online program to deliver interactive lessons to their child.



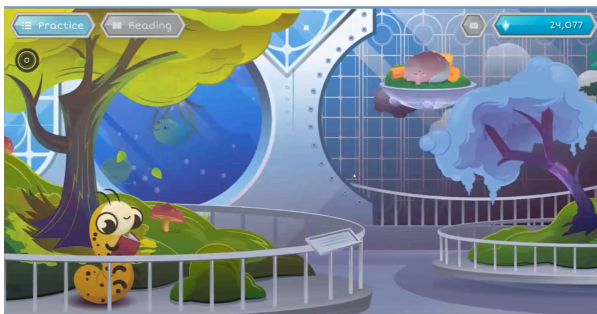
Learning Experience Design (LXD) Research & Consulting

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Lexercise Foundational Research Summary: How Lexercise Aligns to Learning Sciences Research

[Lexercise](#), a comprehensive literacy platform, was founded in 2008 to make quality, evidence-based structured literacy accessible to all struggling readers. Lexercise's online platform includes structured literacy curricula, multimedia lessons, practice games, review and reinforcement activities, systems for managing client and professional data, and professional development resources. The Lexercise team combined the expertise of therapists, technologists, and literacy experts to build a platform that empowers students to improve their reading, writing, and spelling based on solid scientific evidence.

Lexercise is focused on providing a research-based structured literacy approach using a high-dosage, cumulative intervention intensity model (Cordella & Kiran, 2024). Of the many elements involved in overcoming reading difficulties, opportunities to utilize deliberate practice are perhaps the most important (Vaughn & Fletcher, 2021). Lexercise has maximized the practice students receive in an independent practice session. In just 15 minutes of the learning games, students receive 60 response



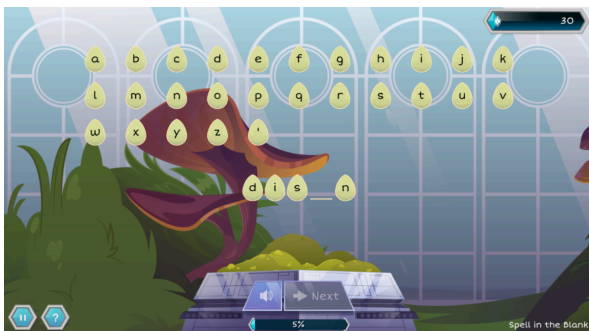
challenges allowing them to intensely practice concepts to build reading, writing, and spelling fluency and automaticity. Lexercise understands the widespread need for literacy intervention and also acknowledges the constraints in making such an intervention program available to all. With this in mind, Lexercise has developed two different implementation formats.

- Professional Therapy is provided by a structured literacy therapist who teaches the lessons and guides the student through the curriculum.
- Basic Therapy & Lexercise for Schools provide the same curriculum and the same high-dose intervention by using media-player-guided lessons that are prerecorded with the voice of a literacy expert, ensuring the fidelity of the program.

How does Lexercise work?

Lexercise has developed a simple, yet effective system which involves a weekly lesson and four days of independent practice. That's it! Lessons are led by an instructor (a therapist, teacher, or parent). Interaction with the instructor is a key component in all Lexercise delivery models. Lessons are not passive, rather, they rely on instructors to engage the student in a back-and-forth conversation through guided prompts pre-constructed based on selected objectives, covering the domains of the English language: phonemic awareness & phonics, orthography, morphology, semantics, syntax, comprehension, and writing.

After the lesson, students use independent, online games to review concepts and practice their




application. Each independent practice session lasts roughly 15 minutes and provides about 60 response challenges. A key component of the Lexercise program is the in-depth data provided to instructors for each student's practice, which allows them to identify error patterns and differentiate instruction.

Students generally start Lexercise between Level 1 and Level 4, depending on their grade level and assessment information. Level 4 is the lowest suggested starting point for all students above grade 4 because it introduces multisyllabic words with all 5 short vowel letter-sounds and unstressed syllables (with schwa vowels), a necessary foundation for reading and spelling academic words.

Following the Simple View of Reading as a theoretical foundation, the Lexercise platform was designed to include the two main components of reading comprehension: word identification (decoding) and language comprehension ([Hoover & Tunmer, 2020](#); [Lonigan et al., 2018](#)).

The Lexercise team operationalized the two components of the Simple View of Reading into 7 Stations or steps. Three Stations are focused at or below the word level (Sounds & Letters, Decoding & Spelling, Word Parts), and three are focused above the word level (Sentence Reading, Comprehension, and Sentence Writing), with the Vocabulary Station as

Lexercise Structured Literacy Curriculum™ STATIONS		Language DOMAINS
1	Sounds & Letters	Phonemic Awareness & Phonics
2	Decoding & Spelling	Orthography
3	Word Parts	Morphology
4	Vocabulary	Semantics
5	Sentence Reading	Syntax
6	Comprehension	Comprehension
7	Sentence Writing	Written Expression



the bridge. Every Lexercise lesson covers the 7 Stations. This 7-station organization was designed based on a similar stepwise lesson plan structure of early literacy instruction demonstrating effectiveness for low-income, inner-city children ([Blachman et al., 2019](#)), but with recognition that the stations are not separate but deeply integrated skills and processes.

Intentional Support of Student Needs

Just as antibiotic medications will not work if they are not taken as prescribed, research-based education will not work if it is not adequately implemented. Lexercise recognizes and addresses key barriers to implementation to ensure the program is used as intended ([Fletcher et al., 2019](#)). In particular, the Lexercise system uses a structured literacy scope and sequence, with pre-selected objectives assigned through a system that monitors progress automatically. For those using Lexercise at home or school, the system provides pre-scripted lessons, to ensure students receive the same rigorous intervention as that delivered by trained and credentialed literacy experts. Screening and progress monitoring tools are provided, along with support for using them, so educators can use data to adjust and tailor instruction. Student engagement and continued use are prioritized, and practice is tracked at a granular level, providing in-depth detail that therapists, parents, and teachers can quickly and easily view. These features of the program help maintain consistent and effective implementation.

With an understanding of best practices in multimedia learning, the Lexercise team has built lessons and games that are engaging without being distracting ([Mayer & Fiorella, 2021](#)), an especially relevant consideration for students requiring intervention support. Lexercise ensures that extraneous or redundant information is minimized to reduce cognitive load. Information is presented with coordinated audio and visual effects in bite-sized chunks to keep learners engaged, which is especially critical for learners with low prior knowledge. Lexercise also aims to optimize learning by directing students' attention to relevant information ([Dehaene, 2020](#)). For example, Lexercise employs graphics and design components (color, highlighting, movement, etc.) to help maintain students' attention and engagement in both lessons and games.

Deliberate Practice in Lessons and Engaging Games

Lexercise uses practice games to help students consolidate their knowledge, following evidence that digital game-based learning interventions support cognitive learning outcomes as well as motivation ([Barz et al., 2023](#)). Lexercise employs engaging, futuristic, vibrant graphics and game-design features, such as the ability to earn points and a responsive interface that lets users click around and explore. In Lexercise, students play the role of Word Rangers, working to restore a fallen tower of knowledge as part of the Ranger Corps. Led by Commander Sandie and assisted by A.N.N.A., their trusty AI sidekick, kids 'climb' the 8 floors of the Tower as they progress through the curriculum, helping to

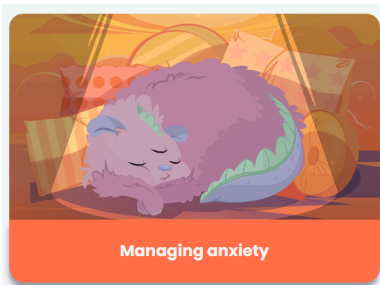
restore each floor to its former glory. The graphics and interface are designed to keep all ages in mind



and to be engaging for students from early elementary to high school. For example, the AI helper's voice adjusts based on the student's age, being a little more magical for younger students, and a bit more straightforward for older students.


A key design feature of Lexercise is that students are never passive in the lessons or the practice games. Each step of the way, they are asked to

engage in response challenges, and this high level of back-and-forth responding maintains active involvement ([Dehaene, 2020](#)). Learning opportunities involve **deliberate practice** focused on specific knowledge components ([Ericsson & Pool, 2016](#); [Koedinger et al., 2023](#)). Lexercise practice games involve explicit, context-specific explanations, including examples both before the activity and in response to errors. The concepts covered at each level are practiced using a set of base games. Familiarity with the game structures allows students to focus on the new concepts. The games also involve incentives to respond correctly on the first try (without guessing) to earn more points, along with opportunities to try again. Critically, students receive repeated opportunities to master concepts using a variety of tasks.



Lexercise recognizes that students may have big emotions or frustrations when practicing reading, spelling, and writing and that an engaging platform and fun games alone may not counteract that. To help students manage anxiety, Lexercise has an optional game that guides a research-backed 4-7-8 breathing exercise.

Lessons and games are constructed to elicit individual responses and to provide **immediate feedback**, allowing for opportunities for retry and correction ([Wisniewski et al., 2020](#)). All response challenges in lessons are followed by explicit feedback allowing for targeted error correction, along with congratulatory messages to support motivation. Games provide immediate feedback and points for correct responses. Rather than using competition as a motivating factor and employing leaderboards displaying a student's rank, Lexercise implements a self-driven reward structure where students get points for correct responses and can maintain a practice streak by practicing every day. This allows students to build their skills and encourages a mastery mindset rather than focusing on their performance compared to others. Maintaining a practice streak is also not tied



to their accuracy or rate of progression in the program, encouraging students to return to the practice platform even when it feels challenging.

Games also re-teach concepts and allow for **repeated practice**, encouraging consolidation ([Hoover & Tunmer, 2020](#)). The length and pace of recommended practice for 15 minutes per day, spaced out across 4 days a week, is intended to provide optimal learning. Instructors can view each student's practice data at the item level to observe error patterns. Lexercise recommends advancing students to the next lessons when their accuracy is ~ 70%. If a student struggles with a specific skill the instructor can use selected tabletop activities for more scaffolded practice.

Conclusion

Lexercise is designed to support students at any step of the way and any baseline skill level, to help all children learn to read. The program provides explicit instruction and practice with reading and spelling through various activities and response challenges, including practice with letter formation. Every lesson and activity is focused on supporting emerging readers who have struggled with other methods. Through a clear scope and sequence, the structured literacy curriculum in Lexercise provides the lesson support that students need to build their literacy skills. Multimedia scripted and narrated lessons allow the program to be implemented in a variety of settings. Lexercise lessons and games provide direct instruction and ample and varied practice opportunities, with immediate feedback, to solidify foundational literacy skills.

Logic Model for Lexercise

PROBLEM STATEMENT

Dyslexia and other learning disabilities impact 1 in 5 children. Unfortunately, most schools lack the resources to help these students, and parents struggle to find effective yet convenient treatment. Lexercise combines the latest in technology with a structured literacy approach to empower children to improve their reading, writing, and spelling through online therapy from literacy experts combined with daily practice activities.

RESOURCES

What resources are or could be available?

- Expert-developed, interactive, structured literacy lessons
- Self-paced lesson progression
- Lessons that target seven domains of literacy
- Professional development materials
- Engaging educational practice games aligned to lessons
- Instructor dashboard to review progress
- 3 subscription types: Professional Therapy, Basic Therapy, Lexercise for Schools
- Assessment materials to adjust instruction and determine student growth
- Literacy coaches for support with in-school use

STRATEGIES & ACTIVITIES

What will the activities, events, and such be?

- Instructors complete 30-45 min lessons with students one-on-one or in small groups, covering sounds and letters all the way to sentence writing
- Students engage in conversation with instructors during lessons and get real-time feedback
- Students practice skills in engaging games 4 days a week for 15-minute sessions (60+ response challenges per session)
- Practice games provide real-time feedback and hints, allowing for two tries before moving on
- Students complete embedded assessments with nonsense words to track decoding skills
- Instructors adjust pacing and focus of instruction according to detailed student practice data

OUTPUTS

What are the initial products of these activities?

- Students advance through lessons and progress through levels of practice
- Instructors can clearly identify individual students' error patterns on specific concepts during lessons and through game monitoring
- Instructors spend less time lesson planning and more time interacting with students
- More students stay on task and sustain their attention during independent practice

SHORT-TERM AND INTERMEDIATE OUTCOMES

- Students develop decoding, isolation of speech sounds, spelling, and letter formation skills
- Students improve their overall grade level reading proficiency
- Students apply learned strategies to new words they haven't seen before
- Students feel both challenged and motivated to continue building their reading skills
- Instructors are empowered to deliver targeted, individual instruction with supports to guide them

LONG-TERM OUTCOMES AND IMPACTS

- Students gain confidence in their ability to learn and overcome challenges
- Reading disabilities become less of a barrier for students as they are able to engage and progress along with their peers
- More and more students are able to access structured literacy around the world

ASSUMPTIONS

- Instructors and students use the program at the intended dosage
- Students have access to devices to allow for consistent practice

Dear Education Leader,

The Lexercise team is grateful for your use of our structured literacy platform. We are delighted you chose Lexercise to empower your educators in providing a high-quality structured literacy program and to support your students in improving their reading, writing, and spelling abilities.

We are excited to share our goal of assessing the efficacy of Lexercise and its impact on academic outcomes, specifically reading and writing abilities. To achieve this, we look forward to partnering with schools to conduct research on our product's effectiveness. The findings will help us understand the impact of Lexercise and improve it to better serve schools like yours.

Please contact us to learn more about collaborating with us on a research project. We hope you will take advantage of this opportunity to help us shape the future of Lexercise.

Thank you in advance for considering our invitation.

Sincerely,

Sandie Barrie Blackley
Chief Knowledge Officer
Lexercise
sandie@lexercise.com

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LXD Research is an independent research firm that evaluates educational programs with ESSA-aligned methods.

Learn more at www.lxdresearch.com

For additional information about **Lexercise** visit:

www.lexercise.com