

2024 // CASE STUDY

The Sooner the Better: New Literacy Screener Gives Teachers Early Insight into Reading Challenges *Before* Students Learn to Read

Third grade is the year to transition from “learning to read” to “reading to learn,” but for children who struggle with interpreting letters, words and symbols, this pivot can put them at risk of falling behind.

Nationally one in every five children struggle to read due to dyslexia; by fourth grade, just one-third of students are reading at a level considered proficient or above.¹ Once students slip, it gets more difficult to catch up each year: Students who don’t read proficiently by third grade are four times more likely than proficient readers to leave high school without a diploma.² And not surprisingly, the pandemic has made things worse: [Data](#) shows that children lost momentum in basic literacy from 2019-2020; and the 2022 NAEP showed that about a third of fourth and eighth graders can’t read at even the “basic” achievement level.

1 Annie E. Casey Foundation: [Fourth grade reading achievement levels in the United States](#)

2 Annie E. Casey Foundation: [Grade level reading](#)

Early literacy has long been the focus of research, and the latest findings show that the best time to solve for challenges with reading is before the problem can ever begin - ideally before they even begin to learn to read.

Enter [EarlyBird](#), a dyslexia screener designed to catch - and quickly address - the earliest signs of language-based problems in preschoolers and kindergarteners as they begin to learn to read. This proactive model is designed to reroute the learning trajectory of students who may otherwise slip by as their peers quickly become proficient readers, and face academic challenges as they get older.

EarlyBird’s Comprehensive Assessment

Kindergarten		
Component	Subtest	Description
Naming Speed	RAN	Name objects
Phonics	Letter Name	Identify letter names
	Letter Sound	Identify letter sounds
Phonemic/Phonological Awareness	Rhyming	Identify two words that rhyme
	First Sound Matching	Identify two words with same first sound
	Blending	Produce word from phonemes
	Nonword Repetition	Repeat nonsense words
Oral Language Comprehension	Deletion	Manipulate phonemes and produce word
	Vocabulary	Identify pictures
	Word Matching	Identify words with similar meaning
	Follow Directions	Demonstrate sequence of operations
Word Reading	Oral Sentence Comprehension	Identify picture that represents sentence
	Word Reading	Read words

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“The earlier you can identify students [with dyslexia] the sooner you can intervene, so they don’t need extra services down the road,” said Dorothy Flaherty, assistant superintendent at the Beverly Public Schools. “The goal is to change things before the students don’t know what to do.”

Beverly was one of five North Shore districts invited to adopt and use the assessment and suite of related educator resources for free during the 2021-22 school year through the [Essex County Learning Collaborative](#). This 15-district professional learning network provides members with early access to promising new tools and resources in partnership with [The Peter and Elizabeth C. Tower Foundation](#), a family foundation committed to helping young people with learning disabilities.

“It typically takes years to bring an idea from bench science to practice,” said ECLC Executive Director Jane Feinberg. “But that’s too long. This is a tool designed to address a challenge districts are facing now. They shouldn’t have to wait.”

The EarlyBird screener was initially conceptualized, created, and pilot tested through the Boston Children’s Hospital Digital Health Accelerator by developmental neuroscientist Dr. Nadine Gaab from the Harvard Graduate School of Education and Dr. Yaacov Petscher from the Florida Center for Reading Research.

By assessing children as early as age 4, there is still plenty of time to “retrain” their brains to make reading less of a struggle as they get older, said CEO Carla Small. And, by using an assessment that looks and feels like a video game, children who have never been tested can relax and enjoy the process.

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“Most kids want to do it again,” she said. “Our work is all about prevention. We are able to find the kids who would otherwise go under the radar for weeks, months or even years. The earlier we are able to identify them, the more we are able to and truly serve as a change agent in schools and for these children. This is not just an educational issue - it’s an emotional and psychological one.”

Dyslexia is a general term for disorders that involve difficulty in learning to read or interpret words, letters, and other symbols. According to the [International Dyslexia Association](#) as many as 15–20% of the population have some of the symptoms of dyslexia, including slow or inaccurate reading, poor spelling, poor writing, or mixing up similar words.

Comprehensive dyslexia screeners like EarlyBird were created to help teachers catch the signs of dyslexia before they can balloon into bigger, harder-to-tackle problems and harder-to-undo habits. Students participate by completing a video game-style set of challenges, led by a bright blue toucan bird named Pip. What they know is that the game is colorful, fast-paced and fun; what they don’t know is that the “gamified” assessment is testing them on naming speed, phonics, phonological awareness, oral language comprehension, and word reading.

In all, Early Bird takes students about 45 minutes to complete, and gives teachers immediate results across 13 subtests, as well as insight into specific areas where students need additional support and research-based, actionable next steps.

This simple, comprehensive, proactive approach is what prompted the ECLC to make EarlyBird available to its members. Through support from the [Peter and Elizabeth Tower Foundation](#), Network member districts have been able to administer the assessment, leverage the individualized student results, access the suite of online resources, and participate in three live professional development sessions at no cost during the 2021-22 school year. Andover, Beverly, Danvers, Gloucester, and Hamilton-Wenham participated in the pilot year and all plan to renew and continue to use the tools.



In Massachusetts, dyslexia is recognized as one of the most common disabilities among the more than 170,000 students identified with a learning disability; the number of students identified nearly triples between second and third grade.¹ For many years the state maintained a “wait and see” approach in identifying students with language-based learning disabilities, letting schools and districts decide when to assess students, and when to intervene in their early elementary years. A new set of statewide guidelines, adopted in 2020, aims to ensure that every student in grades K-2 will be screened for dyslexia and receive the intervention they need. EarlyBird is one of more than a dozen state approved early literacy screening assessments.² Others include more traditional assessments such as the Dynamic Indicators of Basic Early Literacy Skills (DIBELS).

That type of pencil-and-paper test may not have been as effective for kindergartners in Hamilton-Wenham last year, said Jennifer Clifford, the district’s Director of Elementary Teaching and Learning. Due to COVID, most had never been to preschool before, and many required some level of academic and social-emotional support. Initial literacy screening results were “alarming,” she said.

“About half of our students were flagged and needed intervention and had to go back to the basics,” she said. “But once we had the data we could group them, and meet their needs directly.”

The same was true in the five elementary schools in Danvers, where all 257 kindergartners were tested early in the year. End of year results showed significant growth in two of the schools where teachers intentionally leveraged the EarlyBird data to inform their instruction and differentiation strategies. Next year all of the district’s elementary schools will share the same focus, said Julie Pasternack.

¹ [Massachusetts Dyslexia Guidelines](#)

² Massachusetts DESE Center for Instructional Support: [Early Literacy Screening Assessments](#)

“Kindergarten is definitely the time to intervene,” she said. “If we can pinpoint the situation correctly and address it when they’re that age, we can change the trajectory.”

EarlyBird Classroom Dashboard



The Essex County Learning Community (ECLC) provides K-12 educators in Essex County with authentic, community-driven professional learning/development experiences: the Network focuses on building relationships with educators, serving students with diverse learning needs, and on achieving equitable student outcomes. The ECLC is a dynamic community of practice that aims to lift up and scale evidence-based district, school, and classroom-level strategies, while empowering educators to better serve their students with diverse learning assets and needs. This includes students with learning disabilities, learning and attention issues, exposure to trauma, and those not served well under current systems because of structural inequities based on race, culture, income, language, and gender. Funded by the Peter and Elizabeth Tower Foundation in 2018, the Network has since expanded to include more than 15 districts from across the region.