Bring language-rich, rigorous and engaging reading curricula into early education and care settings, as well as PK-3 classrooms.

It is estimated that school-age children spend 15,000 hours of their lives in classrooms;⁵¹ those enrolled in an early education and care setting can log as many as 20,000 hours. This is no small amount of time. As a result, these settings shape the architecture of our children's brains—the strength of the connections among neurons—and influence their thinking skills and academic outcomes.⁵² Therefore, at each setting's core, there should be rigorous and interactive opportunities to build academic language and knowledge, to foster curiosity and jumpstart critical thinking, and through such opportunities, to support reading comprehension.

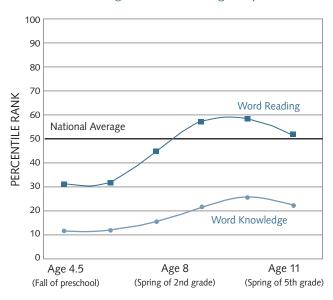
Across the state, those thousands of hours in structured settings are not paying off the way we would hope and expect. Many of the reading difficulties that create widespread academic problems in ensuing years could be prevented if, from early childhood through the primary grades, we prioritized and systematized more intensive language-rich learning environments.⁵³ Yet, according to early literacy research, only about 10 percent of those hours are spent engaging children in genuine learning activities focused on accumulating vocabulary and knowledge.⁵⁴

By and large, the literacy learning in our early education and primary grade classrooms focuses predominantly on foundational reading skills (letter knowledge, letter sounds, and word reading) at the expense of similarly explicit, systematic, and planned instruction focused on building meaning-based skills (comprehension, conceptual knowledge and vocabulary).55 Test scores are revealing on this point. Many of the Commonwealth's thirdgrade readers score higher on measures of word reading ability than on measures of vocabulary and reading comprehension, yet word-reading without understanding is obviously inadequate.⁵⁶ This is an especially pressing issue since linguistic diversity is inherent in our school populations-urban and rural, high performing and lowperforming.⁵⁷ All educators—in our early education and care settings and schools—must be equipped to support and promote language development. It is no longer feasible nor is it effective to rely strictly upon specialists, whether English-as-a-Second-Language teachers, reading specialists, or even speech pathologists to augment language development. Instead, we must take a more preventive approach and design higher quality day-to-day learning environments for children.58 And since some of our struggling students do not succeed after appropriate

and intensive intervention, we all have to do a better job of getting it right the first time. If we are serious about doing so, we need to support our educators with good models and materials.

At scale, we cannot expect early educators and teachers to both *design* and *deliver* curricula on a daily basis. The task of designing learning environments that work to meet our statewide educational standards, particularly the standards that focus on building language skills and background knowledge, remains a critical challenge without a clear road map. For many who focus on children's day-to-day learning, the pressing question remains, *how can we support our children to truly achieve these standards?*

The Word Reading-Word Knowledge Gap



This graphic represents a disconcerting trend: Many children are reading words but don't have sufficient word knowledge to support their reading comprehension. This particular study, of children born to Spanish-speaking immigrants and enrolled in Head Start programs (2001) in one of five locations in the Northeast, shows the gap widening as the children go from preschool through middle school. The research team has identified this trend among thousands of students, including native English-speakers with poor reading comprehension.

Why Curricula?

To raise the level of daily learning and improve third grade reading outcomes we need a well-crafted and comprehensive tool. That tool is a high-quality curriculum that is both language-rich and content-rich. It is an instructional resource that creates a platform for good teaching, even as it supports the setting logistics and substance crucial for promoting early language and reading. Designed and implemented appropriately, it helps teachers meet the needs of all their learners. When implemented across classrooms and settings, a high quality, language- and content-rich curriculum also becomes a tool for institutionalizing professional knowledge and effective practices.

ACTION STEP

The state should provide ongoing guidance on curricula selection and use in early education and care settings, as well as pre-K through third-grade classrooms.

To achieve the desired goals and standards requires bold intentions—and a curriculum. There is no one curriculum that all settings must implement; different curricula will be needed to match the needs of one child population versus another. With that variance comes the burden of vetting and selecting. Administrators and directors selecting a curriculum for their early education and care setting, their district, or their particular program, have an abundance of choices before them. What is needed is sound evidence that a curriculum being considered will support student learning, especially the building of language skills and vocabulary. Unfortunately, the process is often compromised by sales hype, glossy images, or time constraints on the decision-makers as they sort through various options—options subject to frequent change.

To encourage the use of language-rich, rigorous and engaging reading curricula, busy decision-makers must be provided with guidance. They need reliable information from objective, third party sources who have studied the options and who regularly assess both newly published materials and changing program needs. Ongoing guidance in response to student assessment and program evaluation (see prior recommendations) as to which curricula are effective—with whom and under which conditions—would greatly assist instructional leaders as they make expensive choices on curricula. A secondary, intended

consequence of state guidance would be a reduction in the number of curricula in use in the Commonwealth, and the subsequent ability to have cross-district and statewide collaboration and training, reducing fixed costs and increasing shared professional knowledge.

Characteristics of effective curricula for early education and care settings and PK-3 classrooms:⁶⁰

- made up of units of study that focus on big ideas and themes, encouraging shared deep thinking and discussion;
- designed to build reading skills by engaging students with purposeful, explicit opportunities for meaning-based knowledge building (e.g., vocabulary, comprehension, conceptual knowledge) in combination with systematic and explicit code-based skill instruction (e.g., phonemic awareness, letter knowledge, phonics, print concepts, word reading);
- provides a structured, daily lesson model and supporting activities that are part of a long-term plan for teaching and learning;

Digging Deeper: Linking Language and Learning to Big Ideas

In Chelsea's John Silber Early Learning Center, Miss Leslie's class is studying a unit about things that grow. It's part of the *Opening the World of Learning* (OWL) curriculum, also in use and being evaluated in the Boston Public Schools. She and the children are just wrapping up a discussion about the similarities between sprouting plants on the nearby shelf and those in the book, *The Ugly Vegetable*. Using content-rich language, she then reminds her 4-year-olds about center time.

"If you choose to go to the science table to make compost for our worm habitat, don't forget to add the leftover carrot sticks from the soup we cooked yesterday." Joseph waves his raised hand, indicating his choice. The science table is Joseph's favorite, and Miss Leslie finds it is where he does some of his best learning. While Joseph makes his way toward the worm habitat and the other students walk to their chosen centers, Miss Leslie sits down in the writing area. Meeting with the students there, she uses questioning strategies she and her colleagues have been focused on as part of their ongoing professional development. Miss Leslie then joins Joseph and his peers who are mashing carrots, leaves, and soil together. She grabs the book on the table, Wiggling Worms at Work, and engages the students: "Hmmm. What information do we still need about worms? What other questions do we have?..."

- has consistent features in every unit to promote teacher use and children's learning;
- facilitates a classroom arrangement with literacyenriched learning centers that include a wide variety of books (e.g., fiction and expository trade books, leveled books, magazines, audio), and visuals to promote learning and teaching;
- incorporates activities that promote collaborative, structured interaction, play, and inquiry among children;
- includes supporting materials that provide additional review and practice of the content taught in class; these materials should address the particular needs of those struggling or at-risk, including English Language Learners, or children who need enrichment.

ACTION STEP

Quality of implementation should be measured and monitored at the setting level.

Once a curriculum is in use, instructional leaders and educators must be held accountable for monitoring the quality—or fidelity—of its implementation. Note that by suggesting that early education and care settings, as well as PK-3 classrooms, use language-rich reading curricula and monitor their implementation, we are not suggesting that educators be reading a script or be at the same section of a lesson at the same time as the educator next-door. It also does not exclude the possibility of adding to the curriculum to match children's needs. However, we do mean that the learning objectives of a chosen curriculum—one that has been deemed high quality and sufficiently robust to, over time and cumulatively, meet the particular population's needs—should be met. Our educators need support to accomplish this task.⁶¹

For that reason, this curricular recommendation follows our prior recommendation on professional development (recommendation 3). It is not enough to simply buy a curriculum that matches the learning needs of a given student population, and place the teacher's guide in an educator's hands. Curriculum implementation can only be done well if there is a leadership team focused on improving reading instruction. These early education and school leaders should prioritize the hours in a day to spend time in classrooms and develop a firm understanding of

what teachers need to support effective language and reading instruction—they should be conducting supportive observations and facilitating conversations among staff, using the curriculum as a catalyst for professional growth and improved practice. Finally, this support should reflect the fact that high-quality curricular implementation does not happen overnight; learning to use the recommended strategies and approaches is a process in which teachers' skills are continually built and refined.

ACTION STEP

Students who are not demonstrating sufficient progress must receive supplemental instruction that matches the curriculum.

Instructional chaos prevails for many of our at-risk and struggling readers—those who need the most consistency through repeated exposure to the same material in varied and engaging ways, and increased opportunities for practice. Far too often these students receive separate and isolated services. It is a pressing problem that we must fix if we are to truly support our learners. The Response-to-Intervention (RTI)⁶² model being used by districts across the state under the Individuals with Disabilities Education Act (IDEA), is a relatively recent effort to prevent and reduce reading difficulties and provides an opportunity to address this problem. RTI challenges us to provide students with increasingly intense instruction designed to match their demonstrated needs, based on assessment data. An instructional approach guided by student data provides ongoing understanding of which children demonstrate insufficient progress in language and reading development—against established, outside benchmarks despite ample opportunities to learn as part of the daily instructional core. The idea here is that we then provide these students with a "double dose" of instruction additional, sustained (i.e., over time), and intensive instruction that matches the daily curriculum (instructional core) by focusing on the in-class objectives with respect to content and skill, while also targeting the child's language and reading weaknesses. This approach is necessary to ensure the child makes progress in the instructional context and maintains pace with his or her peers, as well as to prevent difficulties from becoming entrenched.

- 51 Rutter, M., Maughan, B., Mortimore, P, & Ouston, J. (1979). Fifteen Thousand Hours: Schools and their Effectiveness on Children. Cambridge, MA: Harvard University Press.; Rutter, M. & Maughan, B. (2002). School effectiveness findings, 1979-2002. Journal of School Psychology, 40(6), 451-475.
- 52 Shonkoff, J. & Phillips, D. (2000). From neurons to neighborhoods. Washington, DC: National Academy Press.
- 53 National Forum on Early Childhood Program Evaluation and National Scientific Council on the Developing Child. (2007). A Science-Based Framework for Early Childhood Policy. Center on the Developing Child. Cambridge: Harvard University; Reading First Impact Study: Interim Report. (2008). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education
- 54 Baumann, J. F., Kame'enui, E. J., & Ash, G. E. (2003). Research on vocabulary instruction: Voltaire redux. In J. Flood, J. Jensen, D. Lapp, & J. R. Squire (Eds.), *Handbook of research on teaching the English language* (pp. 752-785). New York, NY: MacMillan; Foorman, B. R. & Al Otaiba, S. (2009). Reading Remediation: State of the Art. In K. Pugh and P. McCardle (Eds.), *How children learn to read Current issues and new directions in the integration of cognition, neurobiology and genetics of reading and dyslexia research and practice*. San Antonio, TX: Pro-Ed.; Foorman, B. R. (2007). Primary prevention in classroom reading instruction. *Teaching Exceptional Children*, 39(5), 24-30.
- 55 University of Massachusetts Donahue Institute Research and Evaluation Group. (2008). Evaluation of Massachusetts Reading First: Year 5 evaluator's report. Retrieved from: http://www.doe.mass.edu/literacy/donahue/2007eval.pdf. University of Massachusetts Donahue Institute Research and Evaluation Group. (2010). Investigation into Effects and Impact of the Massachusetts Reading First Program: A Synthesis of State¬wide Findings. U.S. Department of Education. (2007). National evaluation of Early Reading First: Final Report to Congress. Retrieved from: http://ies.ed.gov/ncee/pdf/20074007.pdf.
- 56 University of Massachusetts Donahue Institute Research and Evaluation Group. (2008). *Evaluation of Massachusetts Reading First: Year 5 evaluator's report.* Retrieved from: http://www.doe.mass.edu/literacy/donahue/2007eval.pdf.
- 57 Uriarte, M., & Karp, F. (2009). English Language Learners in Massachusetts: Trends in Enrollments and Outcomes. Retrieved from: http://www.gaston.umb.edu/UserFiles/09ELLsinMA%20brief.pdf
- 58 Gordon, D.T., Gravel, J.W., & Schifter, L.A. (2009). A Policy Reader in Universal Design for Learning. Cambridge, MA: Harvard Education Press.
- 59 Foorman, B. R. (2007). Primary prevention in classroom reading instruction. Teaching Exceptional Children, 39(5), 24-30.
- 60 Foorman, B. R. (2007). Primary prevention in classroom reading instruction. *Teaching Exceptional Children*, 39(5), 24-30; Massachusetts Department of Education. (2001). *Massachusetts English Language Arts Curriculum Frameworks*. Retrieved from: http://www.doe.mass.edu/frameworks/ela/0601.pdf; Morrow, L.M., & Tracey, D. H. (2007). *Best practices in early literacy development in preschool, kindergarten, and first grade*. In L.B. Gambrell, L.M. Morrow, & M. Pressley (Eds.) Best Practices in Literacy Instruction (3rd Ed.). New York: Guilford Press.; National Institute of Child Health and Human Development. (2006). *Report of the National Reading Panel. Put Reading First: The Research Building Blocks for Teaching Children to Read* (3rd edition). Washington, DC: U.S. Government Printing Office.; Yaden, D. B., Rowe, D. W., & MacGillivray, L. (2000). Emergent literacy: A matter (polyphony) of perspectives. In M.L. Kamil, P. Mosenthal., P.D. Pearson &, R. Barr (Eds.) *Handbook of reading research, Vol. III*, (pp.425-454). Mahwah, NJ: Erlbaum.
- 61 Pearson, P., Moje, E., & Greenleaf, C. (2010). Literacy and Science: Each in the Service of the Other. Science, 328 (5977), 459-463.; Pence, K., Justice, L., & Wiggins, A. (2008). Preschool Teachers' Fidelity in Implementing a Comprehensive Language-Rich Curriculum. Language, Speech, & Hearing Services in Schools, 39(3), 329-341.
- 62 Responsiveness-To-Intervention: A Blueprint for Practitioners, Policymakers, and Parents [K-12] http://www.advocacyinstitute.org/resources/ TEC_RtIblueprint.pdf. U.S. Office of Special Education Programs (OSEP), Ideas That Work, September/October 2005

