

Purpose: Resource for local leaders when considering what questions they should ask and supports they can provide to support early learning.

Connection to the myFutureNC Strategic Plan: Academic Readiness

A STRONG START FOR FUTURE ATTAINMENT: EARLY LANGUAGE

Why Early Language Development and Reading Matters, and What Families and Communities Can Do to Promote It

Why Early Language Development Matters for Success in High School and Beyond

Meeting future labor market needs in North Carolina will require continued improvement in our high school graduation rate, increased enrollment in postsecondary training and education, and the capacity for workers to retool skills as the economy grows and changes. In the coming years, two-thirds of all newly-created jobs in North Carolina will require individuals to complete education and training beyond high school.¹

Early development of key language skills—listening, speaking, reading, and writing—not only is important for getting children ready for success in grade school but also for supporting longer-term outcomes like increasing postsecondary attainment.² However:

- In 2021, just 31% North Carolina fourth graders were on track for reaching a career and college readiness level in reading; and³
- Over the course of the Covid pandemic, reading proficiency among first graders dropped from 71% to 39%, and among second graders from 78% to 41%.⁴

The challenge is particularly acute for elementary school children living in lower-income circumstances, who typically test “well below their peers on standardized measures of language comprehension and production.”⁵ In 2021, only 16% of lower-income North Carolina fourth graders demonstrated career and college readiness in reading.⁶ These differences remain over time and predict academic performance from elementary school through high school.⁷

Just as building a solid house requires a solid foundation and structural integrity for each floor above it, success in school, at work, and in life depends on solid early language and reading development, with knowledge and skills added and practiced at each period of children’s growth.

¹ Educational Attainment Report: The State of North Carolina’s Talent Pipeline, myFutureNC, September 2021 https://www.myfuturenc.org/wp-content/uploads/2021/08/myFutureNC_Educational-Attainment-Report-2021-8.20.2021.pdf

² Pace, A., Rufan, L., Hirsh-Pasek, K. and Golinkoff, R. Identifying Pathways Between Socioeconomic Status and Language Development, Annual Review of Linguistics, 2017 <https://www.annualreviews.org/doi/10.1146/annurev-linguistics-011516-034226>

³ 2020–21 Performance of North Carolina Public Schools Annual Testing Report (September 1, 2021) Statistical Summary of Results, NC Department of Public Instruction, September 2021 <https://www.dpi.nc.gov/media/12854/download?attachment>

⁴ Read to Achieve State Level Data: Report to the North Carolina General Assembly, NC Department of Public Instruction, December 2021 <https://www.ednc.org/wp-content/uploads/2021/10/2020-2021-RTA-JLEOC-Report-FINAL.pdf>

⁵ 2020–21 Performance of North Carolina Public Schools Annual Testing Report (September 1, 2021) Statistical Summary of Results, NC Department of Public Instruction, September 2021 <https://www.dpi.nc.gov/media/12854/download?attachment>

⁶ 2020–21 Performance of North Carolina Public Schools Annual Testing Report (September 1, 2021) Statistical Summary of Results, NC Department of Public Instruction, September 2021 <https://www.dpi.nc.gov/media/12854/download?attachment>

⁷ ibid

What We Know About Early Language and Reading Readiness

*From “Mama” and “Dada” to Listening, Speaking, Reading, and Writing*⁸

Forty years ago, learning to read was thought to begin at entry to school. Twenty years ago, learning to read was viewed as a process that begins in the preschool years.⁹ Today, we know that babies can hear their mothers’ voice *in utero*,¹⁰ that language development and communication skills advance rapidly from birth,¹¹ and that developing language is connected to changes in both the structure and functioning of a child’s young brain.¹²

Within the first six months of life, most children create sounds to show emotions, respond to sounds and to their own name, build strings of vowels while babbling, and begin to utter consonants. By twelve months, most children say “mama” and “dada,” try to imitate the words of adults, use sounds to get attention,¹³ and can hand a parent a book for shared reading.¹⁴ By two years, children point to pictures in a book and speak in short sentences. By three, children turn the pages of a book, follow simple instructions, and can carry on a back-and-forth conversation. By five, most children can recognize and write some numbers and letters.¹⁵

When Parents Talk and Read, Children Learn, but Family Reading Often Does Not Happen Enough

Early language develops as parents and other caregivers talk, point, sing,¹⁶ read, and share books with young children.¹⁷ Among these nurturing parent-child interactions, reading with young children is especially important. Decades of research shows that, in addition to parent-child attachment, early parent-child reading advances:

- Cognitive development, including problem solving¹⁸
- Language development, including vocabulary growth
- Pre-reading skills, including phonemic awareness and conversational exchange¹⁹
- Early math development²⁰
- Children’s social and emotional development

Language learning is not, however, the same experience for all children. Researchers have estimated that, by the age of three, children living in lower-income families have been exposed to 30 million

⁸ These four skills are frequently cited as basic to language and communication competency.

⁹ Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy*. New York: Guilford Press.

¹⁰ Boyd-Barrett, C. When Can Your Baby Hear You? Baby Center, September 2021

https://www.babycenter.com/pregnancy/your-baby/fetal-development-your-babys-hearing_20004866

¹¹ Developmental Milestones: Learn the Signs, Act Early, Centers for Disease Control and Prevention.

Retrieved January 2022 <https://www.cdc.gov/ncbddd/actearly/milestones/index.html>

¹² Romeo, R., Leonard, J., Robinson, S., West, M., Mackey, A., Rowe, M., Gabrieli, J. Beyond the 30-Million-Word Gap: Children’s Conversational Exposure Is Associated With Language-Related Brain Function. *Psychol Sci.* 2018 May;29(5):700-710

<https://pubmed.ncbi.nlm.nih.gov/29442613/>

¹³ Developmental Milestones, op cit

¹⁴ Beyond the 30-Million-Word Gap, op cit

¹⁵ Developmental Milestones, op cit

¹⁶ Child Development, Reach Out and Read. Retrieved January 2022 <https://reachoutandread.org/why-we-matter/child-development/>

¹⁷ Read Early and Often, Zero to Three. Retrieved January 2022

<https://www.zerotothree.org/resources/1833-read-early-and-often>

¹⁸ Problem solving is a part of critical cognitive skill development and is often referred to as “executive function.”

¹⁹ Wheeler, D. and Jill, J., The Impact of COVID-19 on Early Childhood Reading Practices, *Journal of Early Childhood Literacy*, September 2021. <https://doi.org/10.1177/14687984211044187>

²⁰ Beyond the 30-Million-Word Gap, op cit

fewer words than have children in more affluent families,²¹ and that 1.4 million of those words are just from differences in how often adults read to them.^{22,23}

A 2018 national survey of parent-child reading behavior found important differences between what adults *know* they should do when it comes to early reading and what they *actually do*. Nearly nine in ten parents believe that reading aloud has a strong positive impact on early brain development, but only four in ten read to their young children every day. Just three in ten parents begin reading with their infant at birth, and fewer than two in ten do so for at least 15 minutes each time.²⁴ Economic, employment, and mental health stressors all can impact a family's opportunities to read together.

Actions Families Can Take to Support Early Language and Reading Development

1. Track Developmental Milestones and Share with Your Pediatrician

In 2020, North Carolina adopted *Teaching Strategies Gold* (which already was being used in North Carolina preschools) for meeting a state requirement to complete a developmental screening for all students entering kindergarten.^{25,26} Reading skills assessed at entry to kindergarten are rhyming, alliteration, following directions, and the ability to describe events in other times and places.²⁷ Student progress data over time soon will be available to parents and will be integrated into the state student accountability system.

However, parents do not have to wait until preschool or kindergarten entry to understand their children's early progress in language, literacy, and communications. Freely available monitoring tools include the Centers for Disease Control and Prevention's [Developmental Milestones Tracker](#), a new mobile tracking app called [Sparkler](#), and a milestones checklist available from [NC Infant-Toddler Program](#).

Language and communication delays represent the most common referral for early intervention services. If you see signs that your child's early language development lags behind expected developmental milestones, or if your child has special needs such as a delay in learning to talk, take advantage of North Carolina's [Infant-Toddler Program, which can help refer you to a local early intervention service](#). This program also offers free resources to families in English and Spanish, including a [resource directory](#) and a [developmental milestones chart](#). In addition, there are 17

²¹ Meaningful Differences in the Everyday Experience of Young American Children, Leaders Project, March 2013 <https://www.leadersproject.org/2013/03/17/meaningful-differences-in-the-everyday-experience-of-young-american-children/>

²² Logan, J., Justice, L., Yumus, M., Chaparro-Moreno, L. When Children Are Not Read to at Home: The Million Word Gap. *J Dev Behav Pediatr*. 2019 Jun;40(5):383-386 <https://pubmed.ncbi.nlm.nih.gov/30908424/>

²³ While research over time has found different patterns of child-talk based on the gender of both the parent and the child, variations in the amount and type of child-talk based on parental gender are likely mediated by a series of factors, often interacting on each other. These include: family structure; family economics and education levels; family race and culture; age of the child; and more generalized stereotypes about girls' and boys' emotions, play behavior, and roles.

²⁴ How America Reads Aloud to its Children: National Campaign Survey. Read Aloud 15 MINUTES, February 2018 <http://www.readaloud.org/documents/ReadAloudSurveyReport.pdf>

²⁵ Developmental Screening and Kindergarten Entry Assessment, North Carolina Statutes § 115C-83.5. Retrieved January 2022

https://www.ncleg.net/EnactedLegislation/Statutes/HTML/BySection/Chapter_115C/GS_115C-83.5.html

²⁶ Policy KNEC-017: North Carolina Early Learning Inventory (NC ELI), NC State Board of Education, March 2020

<https://simbli.eboardsolutions.com/Policy/ViewPolicy.aspx?S=10399&revid=9gUEplusedpAzUf1eMLazhp2w==&ptid=amlgTZiB9plushNjl6WXhfiOQ==&secid=KvBh64P2xNeMGAGbslshEGFIQ==>

²⁷ Bell, L. Can a new way of assessing kids entering kindergarten help them learn? NC hopes so. EdNC, April 2020 <https://www.ednc.org/can-a-new-way-of-assessing-kids-entering-kindergarten-help-them-learn-nc-hopes-so/>

[Children's Developmental Service Agencies](#) across the state that support families at the community level.

2. Provide Children with More Book Time, More Play Time, and Less Tech Time

Early brain development requires regular, positive human interaction with engaged adults, but technology can take away that opportunity. Think of technology less as a babysitter and more as a shared reading, picture, and music tool to be used with an actively engaged parent or other adult present. If your infant or toddler is cared for in either family or center-based childcare, be sure that the approach to childcare emphasizes reading, singing, counting, and other adult-child language interactions instead of TV time.

A free web series, [The Basics](#), provides many examples of ways parents can promote early brain development through intentional interactions with their infants and toddlers. The website also includes tips and resources for parents and community members. For example, you can start to read to your child soon after birth with a target of 15 minutes each day. Sign up with the [Dolly Parton Imagination Library](#) and [Reach Out and Read Carolinas](#) to receive free, age-appropriate books for you and your baby. Books without words can be especially powerful when children help to create and tell the story. Don't know where to start? Your local library can make suggestions, and you can find lists of great books for young children by age at the [American Library Association](#) online. In addition, you and your child can build with blocks, name the colors, shapes, and sizes, and then use words that compare them. Or simply walk outside with your child and name everything that you see and do—and give your child an opportunity to respond by telling you what they see and what they are doing.

3. Enjoy Music and Movement, In Person or Online

Grownups always have rocked and sung with babies to calm them, encourage sleep, and make them smile. Decades of research confirms that music and young children, especially when important adults in their lives join in, brings the body and mind together.²⁸ Up close, eye-to-eye singing stimulates early brain development in infants. When parents and other adults sing with toddlers, cognitive, language and social emotional development is stimulated. One example of a well-studied program, available in North Carolina communities, is [Music Together](#), with activities for groups of adult-child pairs in person or online.

4. Ask and Observe How Your Childcare and Preschool Program Promotes Early Language

Visit your childcare setting or preschool program as often as you can. Observe the daily schedule and look at the space to see if there are books that children can access by themselves and with teachers. Watch how teachers talk with children. Is their language mostly simple directions or does it use more complex vocabulary that helps promote language development? Ask how teachers monitor and track children's language development, then ask about your own child's language comprehension and spoken words. As you walk or drive home, ask your children what new things they learned that day. Get them talking so you can hear and respond to the language they use to describe their day.

Actions Local Leaders Can Take to Support Early Language and Reading Readiness

1. Host a Community Conversation on Early Language and Reading Readiness

Over the course of the Covid epidemic, slightly more parents (nearly seven in ten) report reading regularly with their young children as compared with pre-covid data.²⁹ At the same time, family stressors due to Covid have increased and there is national concern about its impact on overall

²⁸ Children and Music: Benefits of Music in Child Development, Bright Horizons, Retrieved February 2022 <https://www.brighthouse.com/family-resources/music-and-children-rhythm-meets-child-development>

²⁹ Mayol-Garcia, Y. Pandemic Brought Parents and Children Closer: More Family Dinners, More Reading to Young Children, US Census January 3, 2022

young child development. Collaborate with your [local NC Smart Start](#) partnership to bring together local school districts, Head Start, and others to gather and review data on young children's language development and reading readiness over this period. Then, host a community conversation not only to craft solutions to emerging challenges but also to celebrate successes.

2. Host an Introduction to Reach Out and Read Carolinas for Area Pediatricians and the Community

[Reach Out and Read](#) is a nationally-recognized, evidence-based program that provides early literacy supports for parents at the offices of pediatricians. At the [Reach Out and Read Carolinas](#) website, you can locate Reach Out and Read [programs in your community](#). The Carolinas [2021 Impact Report](#) provides information on its program design and services, along with data on its positive impact on children's early literacy and positive development.

3. Build Community Knowledge of Early Intervention Services

Language delays constitute the most frequent reason for seeking early intervention services. Sponsor community events that promote freely accessible resources from the Centers for Disease Control's [Learn the Signs, Act Early](#) website. [Resources](#) available (in English and Spanish) for parents and service organizations include home visiting, childcare, preschool, and pediatricians. A [Digital Toolkit](#) is available as well as a list of [Promising Practices](#) in promoting early developmental monitoring and early intervention. The [North Carolina Infant and Toddler Program](#) is our statewide early intervention agent, and local communities are served through 17 [Local Children's Developmental Services](#) agencies.

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