



Science of Reading: The PreK Years

Produced for the New York State Education Department by Nonie K. Lesaux, PhD & Katie C. Carr, M.Ed.

The PreK Years: Laying The Literacy Foundation

The Science of Reading underscores the vital role the PreK years play in lifelong literacy. At this stage, children are building their foundational pre-literacy skills, critical thinking, social-emotional skills and their identities—all of which support their literacy learning in the primary grades.

High-Impact Practices: Cultivating the “Big 6” for Lifelong Literacy

Reading, writing, and communication skills develop from early childhood through adolescence. Across these early years, these high-impact practices develop the “Big 6” in literacy-learning environments that are rigorous, authentic and culturally responsive, laying the foundation for lifelong literacy.

Defining Literacy for Today + Tomorrow

The ability to read, write, speak and listen as a means of identification, understanding, interpretation, creation, and communication; the ability to communicate in diverse ways and with diverse audiences; the ability to understand and use print in an increasingly text-mediated, information-rich, digital and fast-changing world.

[\(See NYSED’s Briefs on Advanced Literacies\)](#)

High-Impact Instructional Practices

COLLABORATIVE AND CULMINATING PROJECTS, PERFORMANCES, AND CELEBRATIONS

Goal: Application and Integration of Knowledge, Skills, and Competencies; Development of a Product

Promotes: **BIG 6** + critical and creative thinking • collaborative planning and problem solving • self-regulation

TEXT-BASED DISCUSSIONS AND WRITING OPPORTUNITIES

Goal: Development and Application of Language, Interpersonal + Communication Skills, and Content Knowledge

Promotes: **BIG 6** + critical thinking • knowledge building • perspective-taking • organizing, planning, editing, revising

ENGAGEMENT WITH A VARIETY OF HIGH INTEREST, DIVERSE, AND COMPLEX TEXTS

Goal: Intellectual Inquiry into Big Ideas, Rich Content, High-Utility Vocabulary, and Diversity of Perspectives

Promotes: **BIG 6** + textual analysis + interpretation • knowledge building • reasoning + synthesizing

PHONOLOGICAL AWARENESS, PHONICS, SPELLING, AND WORD STUDY SKILL-BUILDING

Goal: Fostering Foundational Literacy and Language Skills Alongside Developing Essential Reading and Writing Proficiency

Promotes: **BIG 6** + joyful and purposeful interactions with language • metalinguistic skills • analytical thinking

FOSTERING UNDERSTANDING OF PRINT CONVENTIONS, FEATURES, AND FUNCTIONS

Concepts of Print

Text Structures, Patterns, and Purposes

Goal: Understanding the Conventions of Written Language + Navigating and Comprehending Increasingly Complex and Varied Texts

Promotes: **BIG 6** + joyful and purposeful interactions with print • information processing • metacognitive skills • analytical thinking

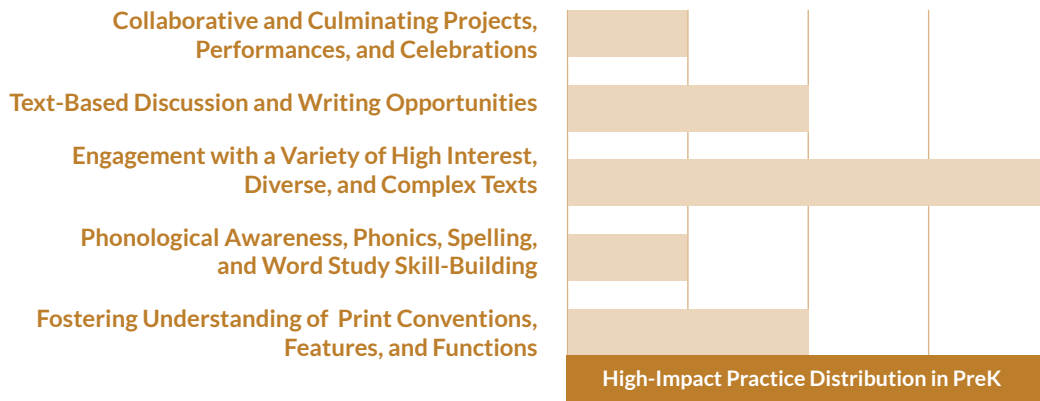
PreK

Elementary Grades

Secondary Grades

High-Impact Practices in Action: How Much Exposure? How Often?

Optimizing the impact of the high-impact practices necessitates a well-designed architecture that ensures early learners receive essential engagement with each practice. The graph below illustrates the relative distribution or proportions of the high-impact practices within a robust PreK literacy setting. It provides a stylized visual representation of the relationship between and among the practices in relation to time, learner exposure and engagement. This distribution could be for a given day, week, month, or any specific period of time or unit.



High-Impact Practices in Action: Which School and Classroom Structures and Processes?

Laying the foundation for lifelong literacy requires well-designed, high-quality learning environments. In these environments, there are enabling structures and processes to bring the high-impact practices to learners in ways that are developmentally appropriate and engaging.



High-Impact Practices in Action: What Do These Look Like in PreK Settings?

	What Does This Look + Feel Like In PreK Settings?	What PreK Skills are Fostered?	Whats Structures And Processes Are Needed In a PreK Literacy Setting?
Collaborative and Culminating Projects, Performances, and Celebrations	PreK learners plan and work together, express themselves, and showcase their thoughts and ideas in a project, performance or celebration.	PreK learners are developing social-emotional skills, especially executive functions, and cultivating their creativity while building up the “Big 6.”	<ul style="list-style-type: none"> • A plan to ensure topics and content are directly connected to prior learning, to serve as opportunity to consolidate learning. • Regular use of talk and learning routines and protocols to support collaboration.
Text-Based Discussion and Writing Opportunities	PreK learners engage in interactive reading experiences; they are having conversations and writing about what they’ve read—to learn a text brings ideas and information.	PreK learners are developing background knowledge and critical thinking skills while building up the “Big 6.”	<ul style="list-style-type: none"> • Text sets with a content-rich theme to support knowledge-building connections. • Routines to promote conversational and pre-writing skills.
Engagement with a Variety of High Interest, Diverse, and Complex Texts	The PreK setting comes alive with interactive read-alouds with books that are content-rich, span genres and cultures, and affirm and broaden perspectives.	Learners cultivate their critical thinking, perspective taking, and social-emotional skills while building the “Big 6.”	<ul style="list-style-type: none"> • Text sets with an engaging, content-rich theme that brings multiple perspectives • Regular use of talk and learning routines to support an inclusive learning environment.
Phonological Awareness, Phonics, Spelling, and Word Study Skill-Building	In a playful manner, with songs, chants, and structured activities, PreK learners are exposed to the relationship between letters (graphemes) and their sounds (phonemes).	PreK learners are developing their metalinguistic and metacognitive skills while building the “Big 6.”	<ul style="list-style-type: none"> • A systematic plan (i.e., scope and sequence) for developmentally appropriate explicit and intentional exposure to work with words, letters, and sounds. • Developmentally appropriate, multi-sensory tasks and activities that support plan implementation.
Fostering Understanding of Print Conventions, Features, and Functions	PreK learners are holding books to “read” to others and following the words with their fingers. They are having conversations about why we read books, why people write them, and how they work.	PreK learners are developing their metacognitive skills and understanding of how and why print works, while building up the “Big 6.”	<ul style="list-style-type: none"> • An environment where print is abundant yet purposeful, including labeling of cubbies, toys, and daily activities. • Routines focused on developing concepts of print, such as calendar and schedule routines, interactive reading with big books, and shared reading of poems and songs.

Supporting Developing Readers With Identified Needs

Today's diverse population of learners includes Emergent Multilingual Learners and/or students with identified disabilities. When organizing for these populations, it is important to first ensure that all students have access to the rigorous, high-quality learning + teaching described in this briefs series. That high-quality approach for all students involves attention to learning environments that reflect the principles of Universal Design for Learning (UDL). UDL principles highlight the importance of:

- Presenting information and content in different modalities
- Ensuring multiple means of engagement and representation
- Using supportive digital learning tools and flexible class spaces to promote choice and investment

Many of these design principles are reflected in today's frameworks aimed at supporting students with identified needs, including Response to Intervention (RTI), Multi-Tiered Systems of Support (MTSS), and the Individuals with Disabilities Education Act (IDEA).

Case Snapshots



Jiang, a 5 year-old English Language Learner who enjoys cooking, was excited to begin a new knowledge-building unit on food security. Prior to daily read-aloud, his teacher previewed high-utility vocabulary and shared them with families. The same words were highlighted in each of the subsequent texts within the "Food Security" text set and teachers noted when Jiang used these words during discussion. Teachers incorporated these words into phonological awareness games in which they clapped out syllables. When writing and drawing in his journal, Jiang used knowledge of the alphabetic principle and print concepts to employ inventive spelling and write with correct directionality.



Josephine, a 4 year-old student, was flagged on a screening assessment for oral language development delays. In addition to receiving Tier 2 services and monitoring progress, Josephine's teachers are focused on creating a language-rich environment in which students engage in meaningful conversations. Teachers use diverse character puppets to help her narrate stories and retell stories, and they utilize text-based discussions as an opportunity to expand on student language. Teachers record Josephine's reflections on labels that are then attached to her drawings. She loves language play, especially tongue twisters and rhyming games.

Case Analysis

1. Notice and name the high-impact strategies that are embedded in these literacy learning environments designed to reinforce the "Big 6" for Jiang and Josephine.

2. How does culturally responsive-sustaining teaching enhance learning for Jiang and Josephine? How does it promote success across each of the high-impact practices and within a school/district learning environment?

Reflect and Analyze: Professional Learning & Strategic Planning

With an understanding of relative instructional time and practice distribution in a PreK setting, recognition of critical structures and processes, and knowledge of what high-impact practices look like and feel like at the PreK level, use your take-aways to:

- Review curricula in use or select potential new ones; review and/or adjust literacy blocks or subject-area instruction.
- Audit students' instructional environments and experiences across classrooms and grades.
- Ensure implementation of both culturally and linguistically responsive sustaining and practices for inclusion, belonging, and academic rigor.
- Consider the match with professional learning opportunities for educators.
- Examine vertical instructional trends across PreK, elementary, and secondary classrooms within a school or district.

Key References & Resources

References

- Duke, N. K., Lindsey, J. B., & Wise, C. N. (2023). Feeding two birds with one hand: Instructional simultaneity in early literacy education. In Cabell, S. Q., Neuman, S. B., & Terry, N. P. (Eds.), *The Handbook on the Science of Early Literacy* (pp. 186 - 195). New York: Guilford.
- Harris, J., Golinkoff, R., & Hirsh-Pasek, K. (2011). Lessons from the crib for the classroom: How children really learn vocabulary. In S. Neuman & D. Dickinson (Eds.), *Handbook of Early Literacy Research*, Vol 3. pp 49-65.
- Jacoby, J. W., & Lesaux, N. K. (2014). Support for extended discourse in teacher talk with linguistically diverse preschoolers. *Early Education and Development*, 25(8), 1162-1179.
- Ouellette, G. & Sénéchal, M. (2008). Pathways to literacy: A study of invented spelling and its role in learning to read. *Child Development*, 79(4), 899-913.
- Uccelli, P., Demir, E., Rowe, M.L., Levine, S. & Goldin-Meadow, S. (2019). Children's early decontextualized talk predicts academic language proficiency in mid-adolescence. *Child Development*, 90(5), 1650-1663.

Resources

- Bolt, M. E., Rodriguez, C. M., Wagner, C. J. & Proctor, C. P. (2019). Can we talk? Creating opportunities for meaningful academic discussions with multilingual children. *Young Children*, 74(2), 40-47.
- Casbergue, R. & Strickland, D.S. (2015). *Reading and Writing in Preschool: Teaching the Essentials*. Guilford Press.
- Rolland, R. (2022). *The Art of Talking with Children: The Simple Keys to Nurturing Kindness, Creativity, and Confidence in Kids*. HarperOne.
- Wright, T.S., Cabell, S.Q., Duke, N.K., Souto-Manning (2022). *Literacy learning for infants, toddlers, and preschoolers: Key Practices for Educators*. Washington, DC: National Association for the Education of Young Children.

ACTIVITY FOR BRIEF 4

THE SCIENCE OF READING IN THE PRE-K YEARS

- Let's focus on the two prekindergarten case snapshots found at the bottom of page 4 of the brief. Notice and name the high-impact strategies that are embedded in these literacy learning environments to reinforce the "Big 6" for Jiang and Josephine.
- Discuss these strategies at your table.