

Instructional Tools

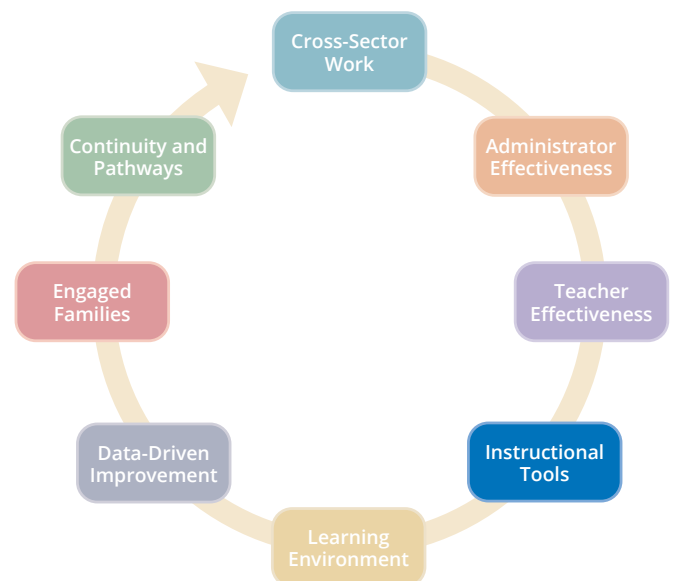
The Framework in Action series expands on the *Framework for Planning, Implementing, and Evaluating P-3 Approaches*¹ and provides brief research reviews, practical strategies, and implementation guidance. Each *Framework in Action* corresponds with one of the eight buckets of alignment effort identified as essential to high-quality and comprehensive P-3 approaches. Structural inequities, and disparities in both opportunities and outcomes, permeate early care and education (ECE) and K-12 systems; each document includes strategies that address equity.

The ISSUE



Student learning is the ultimate goal of P-3 approaches. Instruction is at the heart of learning and teachers rely on a suite of materials – including standards, curricula, and assessments – to guide and improve their instruction. High-quality instructional materials (HQIM) – called instructional tools in the Framework – are research-based and ensure instruction is meaningful, relevant, and affirming of all students. P-3 approaches to instructional tools strive to keep the content of children’s educational experiences aligned and consistent year-after-year, as well as the expectations that educators and policymakers have of young students.

Standards, including early learning guidelines and K-12 content standards, detail what most children should know and be able to do at specified age or grade levels. Curricula provide guidance and resources to inform the content, scope, and sequence of young children’s learning opportunities. Assessments systematically gather information on children’s abilities, needs, and progress and are used to help educators make instructional decisions, to inform when additional assessments and interventions are needed, and to guide systemic improvements. In P-3 teaching and learning, these tools should be aligned within and across classrooms, and



along the full P-3 grade continuum. P-3 instructional coherence also emphasizes strong supports for implementation, specifically curriculum-based professional learning and collaboration among educators, which we address in our *Framework in Action: Teacher Effectiveness*.

Continued on page 2

The Issue	The Goal	The Strategies	What Does the Research Say?	Where to Start in Your Community	Common Pitfalls that Impede Implementation	Indicators of Progress	Spotlight: Promising Efforts and Success Stories	References
PG. 1	PG. 2	PG. 2	PG. 3	PG. 4	PG. 5	PG. 5	PG. 6	PG. 7

Continued from page 1

Early care and education (ECE)* and K-12 have long operated with divergent instructional tools. For example, in ECE, early learning guidelines typically address several interconnected developmental domains and elevate skills like executive function, persistence, and social and emotional competencies (e.g., regulating emotions, forming relationships with peers). K-12 content standards are more likely to align with subject area skills, like reading, math, science, and social studies. A P-3 approach to standards integrates developmental and content progressions that ensure academic, social, and emotional learning are addressed across the full continuum.

In terms of curricula, ECE educators have historically favored emergent “whole child” curricula that may contrast starkly with content-focused curricula in K-12.^{2,3} A P-3 approach to curricula combines integrated learning opportunities that build both unconstrained skills (e.g., vocabulary) and constrained skills (e.g., alphabet knowledge) **with** explicit instruction to support domain specific content. A P-3 approach also addresses instructional alignment to ensure content is not duplicated, learning routines are reinforced year after year, and teachers can differentiate to build on children’s strengths and prior knowledge.⁴

Assessment also differs between ECE and K-12. The ECE field generally relies on ongoing, observational, embedded, formative assessments to understand the range of children’s developmental abilities. K-12 relies more on formal, standards-based, summative assessments that focus on discrete, easily measurable skills.^{5,6} With a P-3 approach, assessment is comprehensive to include a carefully curated set of assessment tools – universal screening, formative, and summative – to provide reliable information about children’s needs, abilities, and progress, starting in ECE and continuing into the early grades.⁷

A P-3 approach to instructional tools is comprehensive – focusing on the development of the *whole* child’s cognitive, social-emotional skills, and academic growth^{3,8} – and guided by young children’s learning trajectories to support differentiated learning experiences that maximize children’s potential.³ The science of learning and development adds that equitable and effective instructional approaches elevate the unique needs, interests, and abilities of every child to achieve high expectations.⁹

Aligning practices across ECE and elementary schools requires more than one system’s approach mimicking the other’s.¹⁰

*Early care and education (ECE) refers to all programs that support the development of young children prior to kindergarten entry including Head Start, child care (family child care and center-based child care), preschool, and prekindergarten.

Although P-3 approaches will not eradicate the differences between the two systems, they can ensure that instructional tools are aligned along developmental trajectories; attend to the whole child; and create shared language, expectations, and understanding of developmental progressions among teachers, administrators, and families.

The GOAL

Standards, curricula, and assessments focus on both academic and social-emotional skills, and are aligned to create instructional coherence, P-3.



The STRATEGIES

- **STANDARDS:** Meaningful, rigorous, and aligned standards are used to articulate what children are expected to know and be able to do.
- **CURRICULA:** Curricula that are balanced, intentional, relevant, and developmental are selected and implemented within and across age/grade levels.
- **ASSESSMENTS:** A comprehensive assessment system that includes diagnostic, formative, and summative tools is used to understand students’ progress.

What Does THE RESEARCH SAY?

This section provides an abbreviated literature review that substantiates both the importance of Instructional Tools and the promise of the strategies described below.

Instructional alignment improves students' learning

- A study of children who attended Boston Public School's (BPS) Pre-K program and experienced strong instructional alignment across grades had faster gains in literacy and math skills through the spring of 1st grade compared with their peers who did not attend BPS's Pre-K program. Misalignment predicted faster convergence in literacy skills, which limited the positive impact of attending an effective Pre-K program.⁴
- Children who experienced misalignment in instructional content (e.g., teaching children math concepts they had already mastered in a prior grade level) had lower achievement than their peers.¹¹
- Standards that delineate learning progressions across the P-3 continuum help educators address disparities in achievement by providing specific information about what children need to learn to master increasingly sophisticated content.¹²

P-3 instructional approaches are grounded in research on learning and development

- P-3 instruction that is grounded in the science of learning and development emphasizes the importance of the whole child; considering the progression of physical development, language and literacy, executive function, social emotional learning, and cognitive skills.^{2,5,13,14,15}
- Programs and schools best serve students when instructional tools address multiple developmental domains, which sometimes requires a variety of tools that are carefully chosen to provide comprehensive guidance.^{16,17,18}

Effective P-3 instructional tools are culturally and linguistically affirming

- Children learn best when schools use instructional approaches that emphasize children and families' assets and are inclusive of cultures, languages, and families' socio-economic well-being.¹⁹
- A narrow focus on constrained skills that are easily measurable (e.g., letter recognition) instead of unconstrained skills (e.g., persistence) can diminish children's learning, contribute to the fade-out of early learning gains²⁰ and emphasize a deficit orientation to children's development.⁶

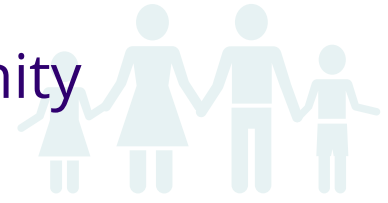
Professional learning and collaboration improve instructional effectiveness and alignment

- Teachers are most likely to change their practices if they are given ample opportunities to learn about standards, assessment, and curricula in collaboration with their colleagues. Working together, teachers examine their instructional practices and student learning to meet standards and effectively implement curricula.^{17,21,22}



WHERE TO START in Your Community

The following list provides several ways to extend and deepen the effective use of instructional tools and to ensure they are aligned and shared across the P-3 continuum.



- **Inventory standards, curricula, and assessments currently in use.** Before taking action to align instructional tools across ECE and K-12, it is important to understand what instructional tools are in place, including local, state, or national standard frameworks; math, literacy, and social-emotional learning curricula; diagnostic, formative, and summative assessments. Review tools to ensure they are inclusive of all children's culture, language, gender, and families' socio-economic status.
- **Match standards, curricula and assessments to P-3 goals through professional learning.** P-3 leaders – principals, directors, instructional coordinators – can compare existing professional learning approaches to their standards, curricula, and assessments. To adopt a P-3 approach, professional learning should focus on using and coordinating instructional tools to support whole child development, rather than more traditional approaches that have a narrow focus on one tool or one developmental domain.
- **Build cross-sector knowledge of instructional tools.** Teachers and administrators in ECE and K-3 will benefit from understanding each other's tools and pursuing strategies for aligning tools where possible. For instance, an elementary school principal may share implementation guides for the state's content standards with the ECE directors in the community, and the ECE directors may share state early learning guidelines and curricula with principals and other K-12 instructional leaders (e.g., coaches, assistant principals). This cross-sector knowledge can be built through professional learning and through relationships fostered among the partners who support early learning and the early grades.



COMMON PITFALLS that Impede Implementation

P-3 approaches are simple in theory and complex in practice. The following are pitfalls to avoid when seeking to strengthen instructional tools:

- **Treating standards and curricula as the same tool.** While related, standards and curricula have different roles in supporting coherent P-3 instruction. Standards describe expectations for children's learning and development that can deepen educators and families' understanding of young learners; curricula provide specificity to inform day-to-day instruction. Well-designed, comprehensive standards should guide the adoption and implementation of curricula.
- **Limiting alignment of instructional tools to Pre-K and Kindergarten.** The Pre-K to Kindergarten transition, while a crucial milestone on the continuum, represents only a slice of P-3. Alignment considers the full P-3 continuum including the early elementary grades (1st, 2nd, and 3rd) and the variety of pre-school settings children attend (i.e., school-based PreK, Head Start, and community-based early learning).
- **Assuming that alignment of instructional tools is a one-time exercise.** Implementing coherent and aligned instruction requires sustained attention. While a first step would be to articulate goals for alignment and taking stock of current tools, teachers and administrators must actively engage in ongoing collaboration to sustain the implementation of aligned instructional tools.
- **Attempting to apply too many instructional tools.** Schools and programs should ensure that they use a curated suite of tools and be mindful about the number of tools they use. Consistency is important; when instructional tools are constantly changing and educators are asked to implement too many tools, it is difficult to maintain alignment and understand children's learning over time.
- **Instructional tools that fail to recognize students' cultural and linguistic assets.** A culturally affirming approach ensures standards, assessments, and curricula are meaningful and accessible, including children's cultural background and language.

INDICATORS of PROGRESS

The following are sample indicators that signal that standards, curricula, and assessments are aligned to further instructional coherence:

- **A comprehensive set of standards for Pre-K through 3rd grade** are used by principals, program leaders, instructional coordinators, teachers, and others in both ECE and K-3 settings.
- **Families are engaged** in discussions regarding standards, curricula and assessments, and regularly offer and receive information about their children's learning.
- **Teachers across sectors engage in professional learning** opportunities to strengthen the integration and application of curricula and assessments to improve teaching.
- **Assessments are comprehensive and used to guide teachers and families in support of children's learning.** The purpose of all assessments – including diagnostic and summative – is clear and relevant to partners.
- **Administrators work with teachers and families** to ensure that all instructional tools are culturally and linguistically affirming, current, appropriate, and collectively understood.



Spotlight: PROMISING EFFORTS and SUCCESS STORIES

The following examples reveal ways in which practitioners are implementing elements of P-3 in their communities.

Boston Public Schools: Focus on Early Learning (P-2)

Boston Public Schools (BPS) has taken a comprehensive approach to supporting instruction from Pre-K for 3- and 4-year olds through 2nd grade (P-2). The district developed its own comprehensive curriculum, *Focus on Learning*, that includes integrated units of study that follow a scope and sequence with activities and instructional practices that support choice, exploration, and play. The content covers language, phonics, math, STEM, social studies, and social-emotional skills. The integrated “whole child” approach is combined with targeted literacy and math curricula that support children’s acquisition of a progression of foundational skills based on the science of learning and development. The district also provides supportive coaching and professional development to all teachers, P-2.

BPS recognizes that both instructional quality *and* child outcomes play key roles in assessment. BPS’s student assessments include progress reports with the *Focus on Learning* curriculum and state standards as well as several diagnostic assessments that focus on specific aspects of children’s development. A key mechanism for BPS to improve the quality of instruction is to use tools that assess the quality of instruction and overall classroom environment (e.g., CLASS, ELLCO, ECERS). This combination of tools supports a whole child approach to cultivate children’s learning and development.

The New Jersey Implementation Guidelines for P-3 Instruction

New Jersey has created implementation guidelines that address high-quality instruction across the P-3 continuum. The guidelines and resources for preschool programs, kindergarten, and 1st through 3rd grade reflect current research and best practices to provide administrators, teachers, instructional coaches, families, and other educators with the tools to implement equitable, standards-aligned, developmentally appropriate instruction. The Guidelines address content, instructional practices, collecting and using student assessment data, differentiating instruction, and project-based teaching and learning.



REFERENCES



1. Kauerz, K. and J. Coffman (2019). *Framework for planning, implementing, and evaluating P-3 approaches*. Denver, National P-3 Center, University of Colorado Denver. <https://nationalp-3center.org/p-3-framework/>
2. Bredekamp, S. (2010). Aligning curriculum and teaching: A child-focused approach. In S. L. Kagan & K. Tarrant (Eds.), *Transitions for young children: Creating connections across early childhood systems* (pp. 135–146). Paul H. Brookes Publishing Co.
3. National Academies of Sciences, Engineering, and Medicine (NASEM). (2024). *A new vision for high-quality preschool curriculum*. The National Academies Press. <https://doi.org/10.17226/27429>
4. McCormick, M. P., MacDowell, C., Weiland, C., Hsueh, J., Maier, M., Pralica, M., Maves, S., Snow, C., & Sachs, J. (2024). Instructional alignment is associated with PreK persistence: Evidence from the Boston Public Schools. *Early Childhood Research Quarterly*, 67, 89–100. <https://doi.org/https://doi.org/10.1016/j.ecresq.2023.11.008>
5. Stipek, D., Clements, D., Coburn, C., Franke, M., & Farran, D. (2017). PK-3: What does it mean for instruction? *Social Policy Report*, 30(2), 1–22. <https://doi.org/https://doi.org/10.1002/j.2379-3988.2017.tb00087.x>
6. Yoon, H. S. (2014). Assessing children in kindergarten: The narrowing of language, culture and identity in the testing era. *Journal of Early Childhood Literacy*, 15(3), 364–393. <https://doi.org/10.1177/1468798414548778>
7. Wulfsohn, S., Helzner, K., & Giles, A. (2025). *Reimagining K-2 assessment: Insights from state leaders, educators, and families*. MDRC. <https://www.mdrc.org/work/publications/reimagining-k-2-assessment>
8. National Commission on Social, Emotional, and Academic Development. (2019). *From a Nation at Risk to a Nation of Hope*. <https://www.aspeninstitute.org/wp-content/uploads/2025/05/Nation-at-Hope.pdf>
9. Science of Learning and Development Alliance. (2020). *How the science of learning and development can transform education: Initial findings*. Author. https://soldalliance.org/wp-content/uploads/2021/12/SoLD-Science-Translation_May-2020_FNL.pdf
10. Engel, M., Jacob, R., Hart Erickson, A., Mattera, S., Shaw Attaway, D., & Claessens, A. (2024). The alignment of P–3 math instruction. *AERA Open*, 10, 23328584241281483. <https://doi.org/10.1177/23328584241281483>
11. Engel, M., Claessens, A., & Finch, M. A. (2013). Teaching students what they already know? The (mis) alignment between mathematics instructional content and student knowledge in kindergarten. *Educational Evaluation and Policy Analysis*, 35(2), 157–178. <https://doi.org/10.3102/0162373712461850>
12. Clements, D. H., et al. (2019). Critiques of the Common Core in early math: A research-based response. *Journal for Research in Mathematics Education* 50(1): 11–22. <https://doi.org/10.5951/jresmetheduc.50.1.0011>
13. Domitrovich, C. E., Durlak, J. A., Staley, K. C., & Weissberg, R. P. (2017). Social-emotional competence: An essential factor for promoting positive adjustment and reducing risk in school children. *Child Development*, 88(2), 408–416. <https://www.jstor.org/stable/44250087>
14. Learning Policy Institute. (2022). *Whole child policy toolkit*. <https://www.wholechildpolicy.org/rkd1-page/full/Whole-Child-Policy-Toolkit.pdf>

Continued from page 7

15. Skibbe, L. E., Montroy, J. J., Bowles, R. P., & Morrison, F. J. (2019). Self-regulation and the development of literacy and language achievement from preschool through second grade. *Early Childhood Research Quarterly*, 46, 240–251. <https://doi.org/https://doi.org/10.1016/j.ecresq.2018.02.005>
16. National Research Council. (2008). *Early childhood assessment: Why, what, and how*. The National Academies Press.
17. Phillips, D. A., Lipsey, M. W., Dodge, K. A., Haskins, R., Bassok, D., Burchinal, M. R., Duncan, G. J., Dynarski, M., Magnuson, K. A., & Weiland, C. (2017). *Puzzling it out: The current state of scientific knowledge on pre-kindergarten effects (A consensus statement)*. Brookings. <https://www.fcd-us.org/wp-content/uploads/2016/04/Evidence-Base-on-Preschool-Education-FINAL.pdf>
18. Sabol, T. J., & Pianta, R. C. (2012). Patterns of school readiness forecast achievement and socioemotional development at the end of elementary school. *Child Development*, 83(1), 282–299. <https://doi.org/10.1111/j.1467-8624.2011.01678.x>
19. Powell, T., Meek, S., Bornfreund, L., Soto-Boykin, X., Allen, R., Iruka, I. U., Bucher, E., Ameley-Quaye, A., Alexander, B., Cardona, M., Aponte, G. Y., Gordon, L., Blevins, D., & Loewenberg, A. (2024). *Learning, joy, and equity: A new framework for elementary education*. Children's Equity Project and New America. <https://cep.asu.edu/resources/New-Elementary-Education-Framework>
20. McCormick, M., & Mattera, S. (2022). *Learning more by measuring more: Building better evidence on pre-k programs by assessing the full range of children's skills*. MDRC. https://www.mdrc.org/sites/default/files/Constrained_Unconstrained_Brief.pdf
21. Stosich, E. L. (2016). Joint inquiry: Teachers' collective learning about the Common Core in high-poverty urban schools. *American Educational Research Journal*, 53(6), 1698–1731. <https://doi.org/10.3102/0002831216675403>
22. Wang, E. L., Schweig, J., Kaufman, J. H., Opfer, V. D., & Berglund, T. (2023). *Coherence in English language arts and mathematics instructional systems across the United States*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA2168-1.html



For additional resources related to Instructional Tools, and other buckets in the Framework, please visit www.nationalp-3center.org.

SUGGESTED CITATION:

National P-3 Center (2025). *Framework in action: Instructional tools*. School of Education and Human Development, University of Colorado Denver.

The Framework in Action series is generously supported by funding from the Heising-Simons Foundation.

NATIONAL **P 3** CENTER

The National P-3 Center focuses on the learning opportunities that young children experience from birth through 3rd grade. Our work spans the traditional boundaries of early care and education (ECE) and K-12 education and is grounded in the intersection of research, practice, and policy.