New York State Education Department

P–3 INSTRUCTIONAL GUIDANCE TOOLKIT

January 2020

Acknowledgements

The development of this Toolkit was guided by an advisory group comprised of representatives from stakeholder groups and offices within the New York State Education Department comprised. The advisory group was provided the opportunity for feedback on the goals of the toolkit and its substantive content. Their input into the process and content was carefully considered and informed the final toolkit, but the contents remain the responsibility of the project team. The project team appreciates the time, energy, and thoughtfulness this group contributed to the project.

ADVISORY GROUP MEMBERS

Stakeholder Organizations

Stephen L Gessner, Independent
Maria Schwab, P.S. 84Q
Margo A. Nish, Director of Early Childhood
Stephania Krynytzky, NYC DOE Division of Early Childhood
Tami Callister, Achievements and Kids Express
Elaine DeBono, Uniondale School District
Megan Foster, Hermon-DeKalb Central School
Colleen Wuest, Madison Oneida BOCES
Katie Jones, WSWHE BOCES
Dee Cook, Massena Central School District
Katie Suhr, Birchwood Elementary School
Andrew Fletcher, NYCDOE
Margaret Drappo, Watertown City School District
Jennifer Coggio, Yonkers Public Schools
Eric Larison, Solvay Union Free School District
Charles J. Infurna, Children's Institute
Beatrice Lopez, City School District of New Rochelle
Lindsey Russo, SUNY New Paltz
Kristin Weller, NYS CCF
Stephanie Hasseltine, Phelps-Clifton Springs School District
Abbe Kovacik, Capital District Child Care Coordinating Council
Patty Persell, NYS Head Start Collaboration/ECAC
Adriana Reis, NYC DOE Division of Early Childhood
Patrick Cunningham, S.G. Love
Melissa Hasty, City School District of Albany
Ellen Sullivan, NYSUT
Annette Brown, UFT Teacher Center
Ivan Tolentino, Port Chester UFSD
Ciearra Norwood, NYS Council on Children and Families
Bernice Moro, Fordham University

NYSED Representatives

Erik Sweet
Elina Tsenter
Tanya Amodio-Kovacs
Andrea Diaz

PROJECT TEAM

Jason Breslin, NYSED
Tina Rose-Turriglio, NYSED
Jessica Krupski, NYSED / CUNY
Meg McNiff, NYSED
DeSylvia Dwyer, NYSED
Melissa Montague, NYSED
Jane Fronheiser, NYSED
Dona Anderson, CUNY
Alyssa Estremo, CUNY
Kyle Snow, RMC
Sarah Hughes, RMC
Koko Wadeson, RMC

The development of the content of this toolkit was managed by a project team including staff from the New York State Department of Education (NYSED), the City University of New York (CUNY), and staff from RMC Research Corporation (RMC).

Contents

Just when children would benefit most from consistency and continuity, the systems with which they interact and the professionals who work with them are particularly fragmented and disjointed. . . . However, both early learning opportunities and the education system that most commonly follows often fail to support children seamlessly, on a consistent, cumulative trajectory free from disruptive transitions, to position them for their future academic achievements and success in life.[1]

Why focus on P–3?

Early childhood education spans across children's lives from birth through age 8 and is broadly recognized as a coherent and important developmental period that warrants special attention.

Indeed, "The scientific basis for focusing on the continuum of years from birth through third grade is persuasive. It is during these years that children acquire the skills, behaviors, and dispositions that are foundational as they transition to later learning."[2] Kristie Kauerz, director of the National P–3 Center, uses a ladder analogy to underscore the importance of taking a P–3 instructional approach:

> *"As children progress through learning opportunities, they climb from rung to rung, building skill upon skill, incrementally expanding their knowledge and development. High-quality prekindergarten and full day kindergarten give children a boost to successfully climb the first few rungs on the ladder of learning. If the rungs stop after kindergarten and there is a long gap of unsupported space until the top of the ladder, children will have more difficulty—and need more assistance—to reach the top. Education should be structured in such a way that all children have learning experiences that build on those in previous years and connect with those to come, creating a smooth and predictable climb to the top.[3]"*

The P–3 approach comprises a range of practical and policy activities designed to align early education within the K–12 system.[4] This approach encourages "organizing instruction within and across grades so that it moves children along typical—albeit sometimes somewhat messy—learning trajectories."[5]

This toolkit supports effective instruction for children in P–3 classrooms.

TOOLKIT KEY FEATURES

Seamless integration into other New York State Department of Education initiatives and resources

A focus on instruction that recognizes factors that influence student learning and affect instruction

Support for effective P–3 instructional strategies that meet the needs of most students

Tools for all P–3 education professionals

Why focus on instruction?

Consensus is growing that high-quality early education is a critical support to all subsequent learning.[6] In early childhood education quality is generally considered holistically in terms of the physical environment, programmatic structure (e.g., length of the school day), curriculum and instruction, and the nature of interactions between teachers and children.[7] All of these aspects of early childhood education have been studied and shown to have an impact on learning outcomes. This toolkit focuses on effective P–3 instructional strategies because research has revealed a disconnect in both educational practices and goals centered around the transition from prekindergarten to kindergarten and early elementary school.[8] Instructional continuity is essential for maintaining an upward learning trajectory through the P–3 years. Instruction is the immediate driver of children's learning and an aspect of early childhood education that teachers are especially well positioned to affect.

Purpose and Audiences

Recognition of the importance of foundational training and ongoing professional development on instructional practices for teachers and directors of programs serving young children is growing. More recently, the relevance of this specialized knowledge to teachers in the early elementary years (kindergarten through Grade 3), and to principals in elementary schools, has been increasingly recognized. Teachers, principals, and instructional support staff can use this toolkit to increase the use of effective, equitable P–3 instructional strategies designed to improve learning and close well-documented achievement gaps. The framework of the toolkit is responsive to the diverse cultural, linguistic, socio-economic, and learning needs of children and families across New York State. The recent revision of the New York learning standards and mapping of the relationship between those standards and the P–3 instructional cycle highlighted the need to provide teachers and school leaders with practical tools to recognize and implement effective instructional strategies aligned with the standards.

This toolkit promotes foundational knowledge and a common language about effective instruction for all P–3 education professionals:

- **Teachers** can use this toolkit to reflect on and grow their understanding of effective instructional strategies.
- **Principals** can use this toolkit to better understand and recognize effective P–3 instruction.
- **Curriculum specialists, mentors, coaches, and others** can use this toolkit in the specific work they do to support teachers and leaders to provide effective P-3 instruction.

The tools are designed to promote refection and discussion that support the improvement of P–3 instruction and student outcomes. The tools are not intended to be used for the formal evaluation of teachers.

How to Use This Toolkit

This toolkit focuses on effective P–3 instructional strategies. It includes a set of complementary tools that create opportunities for teachers and leaders to collaboratively reflect on the practices, structures, and resources needed to implement and support effective instruction in the early grades.

NYSED Office of Early Learning Video Series

In the early grades, it is particularly important for educators to recognize and provide a balance between individual and group needs, active and quiet times, teacher-directed and child-selected activities, and English and home language development. Teachers influence how and what children learn by creating an environment that reflects developmentally, culturally, and linguistically appropriate practices and instruction. Intentional planning provides a framework for learning that is culturally and linguistically responsive, playful, interactive and interdisciplinary.

NYSED values play as an instructional strategy in the early childhood classroom. The video series includes examples of purposeful, play-based instructional strategies that assist children in developing critical foundational skills.

Video Series Overview (6 minutes)

https://vimeo.com/317575562

Why and How Instruction Plays a Role in Child Outcomes

Noted child psychologist Urie Bronfenbrenner placed proximal processes, characterized as "progressively more complex interactions between an active child and the persons, objects, and symbols in [their] immediate environment," at the center of children's development.[1]

"A teacher's moment-by-moment actions and interactions with children are the most powerful determinant of learning outcomes and development. Curriculum is very important, but what the teacher does is paramount."[2]

Terms such as *practice*, *developmentally appropriate practice*, *instruction*, *approach*, and *teaching* are commonly used to describe teachers' actions in the classroom.

This toolkit uses the definition proposed in New York State Education Department's resource for understanding the relationships between the state learning standards and the P–3 instructional cycle, "locally determined approaches and strategies used to teach so students can learn," and identifies a core set of instructional strategies to establish a common language about effective instruction for teachers, principals, and other P–3 education professionals.

Instruction as relationship-based interactions driving learning and development

Children learn best through interactions occurring in the context of established relationships that address their social and emotional needs as well as learning needs. Relationship-based instruction is informed by teachers' knowledge of how children learn generally and how each individual child learns. Teachers who understand how their students learn are better able to identity the most appropriate instructional strategies to support every child's learning. Furthermore, teachers who are skilled at using effective P–3 instructional strategies can successfully sequence the strategies to provide progressively more complex learning opportunities that continually further students' knowledge and skills.

Instruction as part of a larger system that supports student learning

New York State Education Department's P–3 instructional cycle resource aims to provide "a structure for discussing the relationships and distinctions among learning standards, curriculum, instruction, and assessment" as they support student learning. This toolkit focuses on instruction, highlighting how elements of the cycle interplay. For example, effective P–3 instructional strategies include ongoing assessment, which teachers use to adjust and individualize their instructional approach.

P–3 Instruction Alignment

Research on children's learning and development highlights the importance of P–3 instruction and the need to focus on improving instruction. The relationship between instructional quality and student achievement is clear.[3] However, the quality of instruction during the P–3 years is generally uneven—and not especially high overall.[4] The implications of this disconnect for children transitioning from prekindergarten into kindergarten and early elementary school can have a dramatic impact on children's learning progress[5] and long-term outcomes.[6] Efforts to provide high quality early childhood learning opportunities deserve comparable efforts to provide high quality opportunities to learn during the early school years. Therefore, efforts to improve instruction must focus on developing, using, and supporting effective P–3 instructional strategies.

Tools for Effective P–3 Instruction

The **Instructional Strategies** summary sheet describes 8 instructional strategies identified in the research as highly effective and establishes common language that teachers and leaders can use to discuss using and supporting effective P–3 instruction.

The **Instructional Decision Making** summary sheet describes the factors and instructional mindsets that inform teachers' instructional decision making.

The **Knowledge of Effective Instructional Strategies** tool and the **Use of Effective Instructional Strategies** tool assist teachers to reflect on their knowledge and use of the 8 instructional strategies that form the core of effective P–3 instruction.

The **P–3 Classroom Walkthrough Checklist** tool allows leaders supporting teachers' instruction to capture a general sense of teachers' instruction.

The **Observation Discussion Framework** tool can be used to structure conversation between teachers and leaders based upon the teacher's reflection and observations of instruction.

NYSED Office of Early Learning Video Series
A Look at Quality Learning Environments

- Prekindergarten: https://vimeo.com/310438802
- Kindergarten: https://vimeo.com/318076773
- Grade 1 + Grade 2: https://vimeo.com/339169689

Instructional Strategies

Effective P–3 instruction relies on the use of instructional strategies that support young children's leaning and development.

As NYSED's introduction to the New York State Next Generation Early Learning Standards states, there is no single "lock-stepped" approach to P–3 instruction. P–3 teachers rely on a variety of instructional strategies to help children learn and must—like all teachers—plan a systematic approach to instruction that builds on children's prior knowledge and a clear understanding the intended learning goals and sequence within content areas. A review of the research and evidence-based practices revealed 8 instructional strategies that tend to be the most effective when used in a balanced approach to support P–3 students.

Scaffold learning Identify each child's current knowledge and skills and provide challenges to support their advancement. 	**Monitor progress** Use ongoing formal and informal assessments to monitor each child's progress toward learning goals. 	**Provide new material in a way that supports learning** Manage how much and how intensely new information is provided, and work to connect it with prior learning and experience. 	**Provide regular, appropriate feedback** Use feedback to recognize each child's value, interests, and achievements and to guide problem solving. 
Model and role model Use both explicit demonstration and implicit role modeling to provide opportunities for student learning. 	**Use questions to check for understanding and reflection** Ask questions to check for student understanding, encourage reflection and deeper thinking, and identify interests. 	**Foster student ownership of learning** Allow students to make some choices about their learning and periodically lead instruction. 	**Integrate opportunities for play-based instruction** Use play as a means to promote learning rather than an alternative to learning. 

Helping young children progress toward learning goals requires a balance of instructional strategies. In the P–3 setting teachers plan the instructional approaches they will use with the knowledge that young children learn best in a supportive social and experiential context.

Using the Instructional Strategies

Two of the instructional strategies serve as important **anchor strategies** for P–3 teachers:

- **Scaffold learning.** Scaffolding serves as a hallmark strategy for ensuring highly responsive interactions in P–3 classrooms. P–3 teachers use scaffolding every day as they help children understand things they could not on their own. Scaffolds can range from big supports (e.g., breaking problems down into smaller parts) to small, spontaneous supports (e.g., providing encouragement).

- **Integrate opportunities for play-based instruction.** Instructional use of play is intentional and linked to learning goals. Teachers use play-based instruction to help children build memories, learn, and practice important skills. Carefully planned play-based instructional experiences acknowledge the important role play has in helping children experience and learn about the world.

Most of the time teachers use a **combination of these instructional strategies** in an overlapping manner to help children learn. For example:

- **Scaffold learning** requires teachers to monitor progress in order to **provide new material in ways that support learning**, which often allows teachers to **integrate opportunities for play-based instruction** and student choice.

- **Using questions to check for understanding and reflection** and **providing regular and appropriate feedback** commonly co-occur, often in the context of scaffolding and play-based instruction.

These strategies can, however, stand alone:

- Teachers provide direct, explicit instruction in basic math concepts are **modeling** desired knowledge and skills, whereas using manipulatives to solve a series of math problems provides **role modeling**.

- Teachers regularly **monitor progress** through observational assessments of students completed outside of the flow of instruction, but may also do so within instruction by **using questions to check for understanding**.

Instructional Decision Making

Decisions about instructional strategies are driven by 3 types of factors.

Teacher Factors

- **instructional mindset** | how teachers think about their instruction
- **teacher competence** | how well teachers are able to employ different instructional strategies)

Child Factors

- **current knowledge and skills** | teachers' awareness of student learning can help them select instructional strategies
- **insights from past instruction** | teachers' experience and success using different instructional strategies with this child

External Factors

- **curriculum and standards** | curricula may more readily support different strategies, some standards may be more easily approached using different strategies
- **expectations for what instruction looks like** | principal and family expectations about instruction can shape how teacher's act in the classroom

Instructional Mindsets

Intentionality	Flexibility	Differentiation and Individuation	Reflection
Teachers use instructional strategies purposefully and are able to articulate specific drivers (e.g., children's prior knowledge, learning goals, sequence within content areas).	Teachers are aware of the range of effective instructional strategies, how and when to implement them, and when to switch strategies or formats (e.g., whole class, small group).	Teachers generalize or individualize instructional strategies as needed to efficiently and effectively meet the diverse abilities and needs of students.	Teachers rely on reflective practices to make intentional, creative instructional decisions and avoid overreliance on default practices.

Knowledge of Effective Instructional Strategies

Rate well you understand **how and when to use** the following instructional strategies.

Instructional Strategy	I understand how and when to use this strategy . . .
Scaffold learning	Not at all ● ● ● Very much
Monitor progress	Not at all ● ● ● Very much
Provide new material in a way that support learning	Not at all ● ● ● Very much
Provide regular, appropriate feedback	Not at all ● ● ● Very much
Model and role model	Not at all ● ● ● Very much
Use questions to check for understanding and reflection	Not at all ● ● ● Very much
Foster student ownership of learning	Not at all ● ● ● Very much
Integrate opportunities for play-based instruction	Not at all ● ● ● Very much

Which of these instructional strategies are strengths of yours as a teacher?

Which instructional strategies do you think you can strengthen?

What are barriers to using these instructional strategies?

Use of Effective Instructional Strategies

How **frequently** do you use the following instructional strategies?

Instructional Strategy	I understand how and when to use this strategy . . .
Scaffold learning	Not at all ● ● ● Very much
Monitor progress	Not at all ● ● ● Very much
Provide new material in a way that support learning	Not at all ● ● ● Very much
Provide regular, appropriate feedback	Not at all ● ● ● Very much
Model and role model	Not at all ● ● ● Very much
Use questions to check for understanding and reflection	Not at all ● ● ● Very much
Foster student ownership of learning	Not at all ● ● ● Very much
Integrate opportunities for play-based instruction	Not at all ● ● ● Very much

Which instructional strategies do you tend to use the most?
Why do you think you tend to use these instructional strategies more often?
Which instructional strategies do you tend to use the least?
Why do you think you tend to use these practices less often?

P–3 Classroom Walkthrough Checklist

Teacher: _____

Date: _____ Grade: _____

Others present:
- ☐ Coteacher
- ☐ Assistant teacher
- ☐ Reading specialist
- ☐ Special education teacher
- ☐ Other adult

INSTRUCTIONAL STRATEGIES

How frequently did you observe this instructional strategy?	Not at all	Once or twice	Somewhat often	Very often
Scaffold learning	☐	☐	☐	☐
Monitor progress	☐	☐	☐	☐
Provide new material in a way that supports learning	☐	☐	☐	☐
Provide regular, appropriate feedback	☐	☐	☐	☐
Model and role model	☐	☐	☐	☐
Use questions to check for understanding and reflection	☐	☐	☐	☐
Foster student ownership of learning	☐	☐	☐	☐
Integrate opportunities for play-based instruction	☐	☐	☐	☐

INSTRUCTIONAL MINDSETS

How much evidence did the teacher demonstrate this instructional mindset?	None	Limited	Some	Strong
Intentionality of approach with each student	☐	☐	☐	☐
Flexibility using instructional strategies	☐	☐	☐	☐
Differentiation of instruction for groups of students' needs	☐	☐	☐	☐
Individuation of instruction to meet specific students' needs	☐	☐	☐	☐

STUDENT ENGAGEMENT

How frequently did you observe engagement?	Not at all	Once or twice	Somewhat often	Very often
Teacher engaged in some instruction with all students during the observation	☐	☐	☐	☐
Teacher engaged students differently based upon their needs	☐	☐	☐	☐
Students were engaged in learning with the teacher	☐	☐	☐	☐
Students were engaged in learning with an adult other than the teacher	☐	☐	☐	☐
Students were engaged in learning with other students	☐	☐	☐	☐
Students were engaged in learning independently	☐	☐	☐	☐

TOOL 

Observation Discussion Framework

Teacher: _____

Observation date: _____ Observation period/time: _____

Use this tool to **structure a conversation with teachers** after observing their instruction.

TEACHER

Recollections of the observation period

summary of goals for the observation period, how typical the day was

PRINCIPAL

Feedback

share observation form, provide key strengths observed, and note any areas of concern

BOTH

Observation strengths and concerns

TEACHER

What supports are needed to ensure effective instruction?

current or new supports such as coaching, professional learning, addition planning time, resources, etc.

TEACHER

Moving ahead I commit to . . .

PRINCIPAL

Moving ahead I commit to . . .

A P–3 instructional approach that ensures all school staff understand their roles and have a sense of ownership is central to fostering a school culture that can withstand changes such as staff turnover. As P–3 alignment is realized and evidence of positive impact accumulates, the implementation of the P–3 instructional approach becomes *how we do things* rather than *what we are doing right now.*

Supporting Effective P–3 Instruction

Building capacity to support P–3 teachers by adopting a whole-school model that includes principals and instructional leaders is foundational to establishing a coherent P–3 instructional approach.[1]

Whole-School Buy-In Matters

P–3 instruction is most effective part of an all-in, whole-school approach.[1] For example, alignment of instruction, curriculum, and assessment; collaborative planning within and across grades; and comprehensive and needs-based professional learning for teachers rely on whole-school buy-in for successful implementation. Indeed, the very notion of a P–3 instructional approach calls attention to the importance of collaboration and coordination across the early elementary years—and engaging the entire school furthers P–3 goals.

Leader Roles to Support P–3 Instruction

Prioritizing a P–3 instructional approach at the leadership level sets the tone for the entire school. By cultivating a deep understanding of early childhood development and **providing a clear vision of effective P–3 instruction** leaders build credibility and encourage collaboration. Leaders must also work to ensure alignment among the New York State Leaning Standards, curricula, and assessments to support student learning and improve outcomes.

LEADER ROLES

Provide a clear vision of effective P–3 instruction and learning

Create a space for collaborative instruction

Support data-informed instruction

Effective leaders foster a culture of collaboration that includes all individuals who work to deliver and support effective instruction including lead and assistant teachers; special education, literacy, and other specialists; and teacher mentors and coaches. Leaders play a critical role in **creating a space for collaborative instruction** when they can identify key providers of instruction and establish broadly shared accountability for children's learning. Collaboration is labor intensive and requires strategic use of resources—especially time. Shared planning time and access to resources and collaborative professional learning represent a logistical challenge to schools and programs that leaders can address.

Schools collect a vast amount of data. School leaders can fall into a "data rich, information poor" trap unless they can create a culture **supporting data-informed instruction**. Leaders must work to identify the most relevant data sources including classroom-level measures and standardized assessments of student learning and development. Leaders must also be able to understand and critically evaluate these data and develop these skills among instructional staff. Ensuring a shared understanding of basic principles of data quality is critical to engaging in deep discussion about teachers' instruction and children's learning. Data collected intentionally to inform instruction can be used to create feedback loops for teachers to improve their instruction.

Engaged, collaborative instructional leadership goes beyond a traditional administrative role for school leaders.

This part of the toolkit focuses on 3 roles school leaders can assume to improve the quality of P–3 instruction in addition to administration and compliance enforcement.

Tools for Involving Principals and Instructional Leaders

Leaders can delve into 3 critical support roles using the **How to Support Effective P–3 Instruction** summary sheet.

Leaders can use the **Leader Self-Assessment** tool to reflect on and increase their capacity to fulfill those support roles.

Teachers and others delivering and supporting instruction can use the **Assessment of Leader Support for Effective P–3 Instruction** tool to provide feedback to leaders.

The **Data Sources and Terminology** summary sheet supports data-informed decision making and instruction by providing basic definitions of common data terms and identifying sources of data.

How to Support Effective P–3 Instruction

3 Critical Leader Roles to Support Effective P–3 Instruction

Provide a Clear Vision of Effective P–3 Instruction and Learning

Provide support for effective P–3 instruction

- Learn about effective P–3 instruction to recognize these practices in P–3 classrooms and to describe these practices and why they are appropriate and effective for young learners.
- Provide instructional leadership in developing strategies to support teachers' use of effective P–3 instructional practices.
- Push back against mandates or other pressure for P–3 teachers to adopt practices other than those that are effective in P–3.

Build foundational knowledge of child learning and development

- Engage in professional learning opportunities to build this knowledge.
- Learn from teachers, instructional supports and leaders through observation and question to supplement gaps in knowledge.

Ensure that curricula and assessments are aligned to support the instructional cycle

- Ensure familiarity with the standards for P–3.
- Ensure that the curricula and assessments used by teachers in P–3 classrooms are aligned to these standards.
- Ensure that teachers are aware of the standards and where there is alignment.

Create a Space for Collaborative Instruction

Identify key providers of instruction and their supports

- Identify instructional team members and their roles supporting individual teachers and the school.
- Ensure that teachers have access to members of instructional teams, which might include working with district and other administrative levels to ensure access to individuals not regularly located in the school.

Encourage collaboration among teachers and other instructional supports

- Diagnose staff readiness and capacity to collaborate. They can determine barriers that may exist (implicit or explicit) that can hinder collaboration, as well as identify strengths that can exist to support it.
- Establish a tone of collaboration by creating a broad shared accountability for children's learning across the school. This includes the lead teacher, as well as assistant teachers, literacy coaches, special education specialists, etc. Successful collaboration can then be recognized and highlighted.
- Role model collaboration by seeking support from others while building understanding of early childhood development and learning, instruction, and leadership practices.

Provide time and space for collaboration to occur

- Provide shared planning time, asynchronous planning resources, and resources for information sharing.
- Support collaborative professional learning, where a team that works together receive professional learning together.

Support Data-Informed Instruction

Identify and support data that teachers can use to inform instruction

- Collaborate with instructional staff to identify assessments of children's learning and assessments of classroom quality and practice most useful in supporting instruction.
- Support teachers to use assessments of their own instruction and practice (e.g., self-assessment, observation) separate from teacher evaluation or accountability systems to contribute to candid, critical discussions about instructional strategies.
- Recognize value in data other than assessments of learning or practice to support instructional practices. For example, knowing about the language(s) spoken at home or a family's access to technology can inform decisions about how to teach.

Foster a critical understanding of data

- Develop basic data literacy—understanding where data come from and basic terminology from statistics and psychometrics.
- Apply data literacy to available data that to distinguish reliable and valid data from data that lack these qualities.
- Recognize that data can be presented in ways that are potentially misleading and work to ensure data shared with instructional teams is free from these errors.

Use data on instruction to inform teacher feedback from other teachers and instructional support staff

- Provide opportunities for teachers to collect and have access to data relevant to their instructional planning in a timely manner.
- Encourage teachers to engage their whole instructional support system (i.e., other teachers and instructional support staff) to participate in this process.

Leader Self-Assessment

Rate the degree to which you are able to provide each form of support for effective P–3 instruction. Then briefly note areas of strengths and areas for improvement.

Date completed: _____

Provide a clear vision of effective P–3 instruction and learning	
To what extent are you able to provide support for effective P–3 instruction?	Not at all ● ● ● A lot
To what extent have you built foundational knowledge of child learning and development?	Not at all ● ● ● A lot
To what extent are you able to ensure that curricula and assessments are aligned to support effective P–3 instruction?	Not at all ● ● ● A lot

Create a space for collaborative instruction	
To what extent do you identify key providers of instruction and their supports?	Not at all ● ● ● A lot
To what extent do you encourage collaboration among teachers and other instructional supports?	Not at all ● ● ● A lot
To what extent are you able to provide time and space for collaboration?	Not at all ● ● ● A lot

Support data-informed instruction	
To want extent are you able to identify and support data that teachers can use to inform instruction?	Not at all ● ● ● A lot
To what extent are you able to foster a critical understanding of data?	Not at all ● ● ● A lot
To what extent are you able to use data on instruction to inform teacher feedback from other teachers and instructional support staff?	Not at all ● ● ● A lot

What are your areas of greatest strength in how you lead for effective P–3 instruction?

What are areas for improvement in how you lead for effective P–3 instruction?

Assessment of Leader Support for Effective P–3 Instruction

Rate the strength of your school's leadership supporting teachers in effective P–3 instruction. Then briefly note areas strengths and areas for improvement.

Leader: _____

Assessment completed by (optional): _____

	Rating of School Leader				
Provide a clear vision of effective P–3 instruction and learning					
Provide support for effective P–3 instruction	Weak	●	●	●	Strong
Build foundational knowledge of child learning and development	Weak	●	●	●	Strong
Ensure that curricula and assessments are aligned to support effective P–3 instruction	Weak	●	●	●	Strong
Create a space for collaborative instruction					
Identify key providers of instruction and their supports	Weak	●	●	●	Strong
Encourage collaboration among teachers and other instructional supports	Weak	●	●	●	Strong
Provide time and space for collaboration to occur	Weak	●	●	●	Strong
Support data-informed instruction					
Identify and support data that teachers can use to inform instruction	Weak	●	●	●	Strong
Foster a critical understanding of data	Weak	●	●	●	Strong
Use data on instruction to inform teacher feedback from other teachers and instructional support staff	Weak	●	●	●	Strong

What is your school leader's greatest STRENGTH providing a clear vision for P–3 instruction and learning?

What is your school leader's area of greatest NEED FOR IMPROVEMENT providing a clear vision for P–3 instruction and learning?

What is your school leader's greatest STRENGTH creating a space for collaborative instruction?

What is your school leader's area of greatest NEED FOR IMPROVEMENT creating a space for collaborative instruction?

What is your school leader's greatest STRENGTH supporting data-informed instruction?

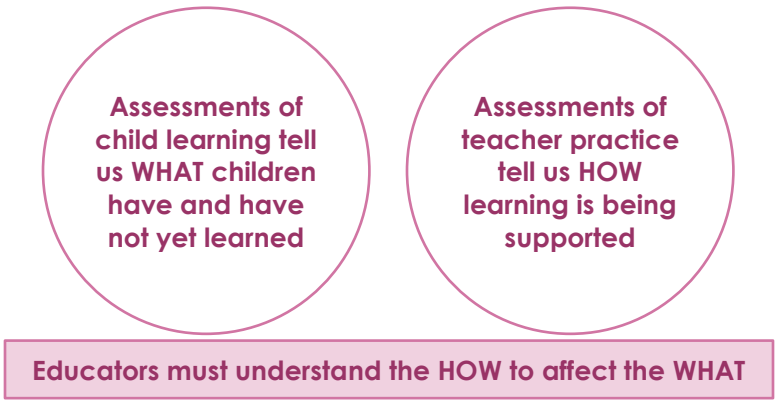
What is your school leader's area of greatest NEED FOR IMPROVEMENT supporting data-informed instruction?

Data Sources and Terminology

Data from a range of potential sources can inform P–3 instruction to support young children's learning and development. Many schools have inventories, dashboards, and reports that can provide access to these data.

Data Type	Example/Source
Child assessments (observational tools, portfolios, formal assessments/tests)	**Screening assessments** provide an indication of a potential learning, developmental, or cognitive disability. **Diagnostic assessments** typically a follow-up to screening, a closer examination of an area of development or learning that identify specific areas of need and additional focus. **Formative assessments** regular, ongoing assessment intended specifically to guide instruction. **Summative assessments** assessments done to test for learning after instruction has occurred.
Other child data	Attendance, Individual educational plan (IEP), language(s) spoken, discipline referrals, prior assessment data
Classroom data	Instruction, classroom environment ratings, class size
School data	School climate, school report card/dashboard data
Family data	Language spoken at home, level of education, school engagement
Community data	Resources for learning (e.g., libraries, museums), community-based opportunities and programs (e.g., Ready to Read programs)

Leaders and instructional staff must be able to understand and critically evaluate the available data. Ensuring a shared understanding of the basic principles of data quality is critical to engaging in deep discussion about teachers' instruction and children's learning.



Key Concepts in Understanding Data

criterion-referenced assessment // An assessment that compares child performance against a set of criteria generally sequences to reflect increasing difficulty. These assessments can lead to all children attaining the same highest score

norm-referenced assessment // An assessment that compares child performance against all children in a group with a large characteristic in common, usually grade or age. This leads to scores based upon ranking within the larger group (the norming group) typically reported as a percentile. A child with a score at the 80th percentile has gotten a score better than 80% of the all children his or her age. Often called a standardized assessment or test.

reliability // The consistency of assessment scores. This can be measured over time (test-retest reliability), of across different observers (inter-rater reliability). Reliability is measured from 0.0 to 1.0, with a score of 1.0 being perfect.

mean // The average of a group of scores.

median // In a set of scores the score in the middle so that half of all scores are lower and half are higher. In a norm-referenced assessment the median score is at the 50th percentile.

standard deviation // In a set of scores the standard deviation is an estimate for how much variation there is in scores within the set. A low standard deviation occurs when more of the scores are close to the mean, and a higher standard deviation occurs when the scores are spread more widely around the mean.

test bias // When a specific assessment's design or use is biased in some way to provide lower (or higher) scores for takers with certain characteristics in common. Assessments can include items that are biased against individuals based upon their racial, ethnic, and cultural background; language spoken; and, physical and motor capabilities, among other factors.

validity // An indication of how closely the assessment measures what it is intended to measure, or accuracy. Validity is measured in a number of ways, and like reliability is scored between 1.0 (*perfect*) and 0.50 (*good*).

***Reliability* and *validity* are different indicators of the quality of assessment data. Reliability is about consistency, whereas validity is about accuracy. A reliable test with low validity would give a consistently wrong score.**

Effective professional learning "is targeted on specific and clearly articulated evidence-based teaching practices; it is sufficiently intense to change targeted practices; and it uses professional development strategies that promote behavioral change."[1]

Effective professional learning also describes "What [effective] practices look like . . . to intensively focus on elements of teaching that will translate into positive outcomes for children."[2]

Strengthening P–3 Instruction

Continuous learning and improvement are deeply engrained in early educators and part of their code of ethical conduct.

P–3 teachers in New York State's public education system are required to complete professional learning to maintain their teaching credentials. Leveraging professional learning specifically to support more effective instruction is a critical part of professional practice and has the potential to dramatically improve students' learning.[3] Well-designed, high-quality professional learning can lead to instructional change and improved outcomes for young children.[4]

New York Requirements for Professional Learning (Continuing Teacher and Leader Education; CTLE)

- All Professional Certificate holders and TA Level III that are practicing in a New York State public, nonpublic, special act or BOCES (except 4410 and charter) must have an active registration status and complete 100 hours of CTLE during their 5-year registration period.
- All CTLE must be rigorous in the areas of pedagogy, content, and language acquisition as they pertains to the certificate(s) you hold.
- All CTLE must be obtained from a NYSED-approved CTLE sponsor.
- The CTLE should align to the teacher's certificate. If an individual holds an Early Childhood (birth–Grade 2), the CTLE must pertain to that grade level.

for more information regarding CTLE, see **http://www.highered.nysed.gov/tcert/resteachers**

To be effective professional learning must "target specific evidence-based teaching practices, be sufficiently intense, and use methods that actively engage teachers in learning and reflective experiences that will lead them to change their daily behavior in the classroom."[5]

Professional learning may "come together in a set of experiences that are either clearly articulated, scoped, and sequenced or disorganized and haphazard, without focus and clarity . . . experience suggests that the latter is much more common than the former."[6]

Assessing Instructional Strengths and Needs

To improve the quality of their instruction teachers must be aware of the degree to which they are able to employ effective instructional strategies. This awareness can come through reflection and self-assessment or feedback from others through observation of practice. The critical aspect is that information on practice, through which it is possible to identify instructional strengths and areas in need of improvement, is available to the teacher.

Information Sources

Self-Assessment

- Self-assessment is the most accessible means for teachers to assess their strengths and needs to inform professional learning.
- A wide range of self-assessment tools (some of which might be in use locally) can provide teachers with a reflective lens on their instructional approach.
- Self-assessment tools provide a private space for teachers to reflect on their instructional approach.

Observation

- Observation is commonly used by school leaders as part of a formal evaluation process or as part of less formal walk-throughs.
- Observation is commonly used by instructional coaches and mentors.
- The observation process must be credible to the teacher.
- Observation yields the most valuable feedback when it is conducted using instruments that focus on instructional strategies.

Be as specific as possible about the instructional strategies observed and teachers' reflections on their instructional approach.

Meeting Professional Learning Goals

The goal assessing instructional strengths and needs is to inform a systematic approach to professional learning that can improve instruction and other knowledge and skills. P–3 teachers are expected to pursue ongoing professional learning to obtain and maintain their certifications. On the basis of their own needs assessment—and sometimes local or state directives—teachers identify professional learning goals and develop strategies to meet them through an **individual professional learning plan**.

Professional learning plans entail at least 3 critical components that collectively form a theory of change

Creating and Implementing a Professional Learning Plan

Having a plan informed by teacher need is critical for all forms of professional learning insofar as it guides the choice of content and possibly delivery of learning. There are many possible models for professional learning plans for adoption by teachers—many locally developed. Though models vary, professional learning plans entail at a minimum 3 critical components that collectively constitute a **theory of change**: (a) a narrative about the aspects of professional practice that are being targeted for improvement through professional learning, (b) details about the professional learning approach, and (c) a means for assessing the degree to which the professional learning leads to change in instructional practice.

Professional Learning Theory of Change Components

Which aspects of my instruction do I need to improve?	How will I actually improve my instruction?	How will I know my instruction is improving?
Identify the areas of instruction that would benefit from change and improvement. This information can be gathered from assessments of the teacher's instructional approach (conducted by the teacher or others) and by identifying common areas of students' needs.	The heart of the professional learning plan is a detailed description of learning opportunities that address the identified areas of need. A detailed plan supports the intentionality behind teachers' professional learning goals and approach.	The most direct evidence of the impact of professional learning is measurable change in teachers' instructional strategies.

Tools for Preparing to Build or Strengthen P–3 Instruction

New York State has developed standards for professional development, summarized in **The 10 Standards for High-Quality Professional Development** summary sheet to help identify high-quality professional learning opportunities for teachers.

The **New York State Professional Learning Plans** summary sheet provides an overview of the New York State Professional Standards and Practices Board Professional Learning Plans Guidance Document that teachers and school leaders can use to develop complete professional learning plans.

Teachers can use the **Developing a Personal Professional Learning Plan** tool to identify areas of focus for their professional learning.

School leaders can support the development of teachers' professional learning plans in many ways, summarized in the **School Leaders' Roles in Supporting Teacher Professional Learning** summary sheet.

The 10 Standards for High-Quality Professional Development

1. **Designing Professional Development**
   Professional development design is based on data; is derived from the experience, expertise and needs of the recipients; reflects best practices in sustained job-embedded learning; and incorporates knowledge of how adults learn.

2. **Content Knowledge and Quality Teaching**
   Professional development expands educators' content knowledge and the knowledge and skills necessary to provide developmentally appropriate instructional strategies and assess student progress.

3. **Research-Based Professional Learning**
   Professional development is research-based and provides educators with opportunities to analyze, apply and engage in research.

4. **Collaboration**
   Professional development ensures that educators have the knowledge, skill, and opportunity to collaborate in a respectful and trusting environment.

5. **Diverse Learning**
   Professional development ensures that educators have the knowledge and skill to meet the diverse learning needs of all students.

6. **Student Learning Environments**
   Professional development ensures that educators are able to create safe, secure, supportive, and equitable learning environments for all students.

7. **Parent, Family and Community Engagement**
   Professional development ensures that educators have the knowledge, skill, and opportunity to engage and collaborate with parents, families, and other community members as active partners in children's education.

8. **Data-Driven Professional Practice**
   Professional development uses disaggregated student data and other evidence of student learning to determine professional development learning needs and priorities, to monitor student progress, and to help sustain continuous professional growth.

9. **Technology**
   Professional development promotes technological literacy and facilitates the effective use of all appropriate technology.

10. **Evaluation**
    Professional development is evaluated using multiple sources of information to assess its effectiveness in improving professional practice and student learning.

see **http://www.highered.nysed.gov/tcert/pdf/pdstds.pdf**

New York State Professional Learning Plans

New York State Professional Standards and Practices Board developed a detailed guidance document to assist schools, districts, and BOCES to develop professional learning plans that outline how they will provide substantial needs-based professional development opportunities for teachers.

THE FULL GUIDANCE DOCUMENT
http://www.nysed.gov/common/nysed/files/programs/postsecondary-services/plp-guidance.pdf

STANDARDS FOR PROFESSIONAL DEVELOPMENT
http://www.highered.nysed.gov/tcert/pdf/pdstds.pdf

RESOURCES FOR PROFESSIONAL LEARNING
http://www.nysteachercenters.org/other-resources/professional-learning-resources/

Professional learning plans describe goals, objectives, strategies, activities, and evaluation standards.

- The needs analysis utilized, including quantitative and qualitative information regarding teacher and leader practice and student outcomes.
- How professional learning related to educator practice and curriculum development are culturally responsive and reflect the local needs.
- How the school, school district or BOCES provides all teachers and school leaders with "substantial professional learning opportunities tailored to the needs of educators that are directly related to student learning outcomes."
- How professional learning is aligned with state teaching, leadership, and learning standards, assessments, student needs, adult learning theory, and current research in education including but not limited to linguistic, cultural diversity, and special needs, and culturally appropriate and responsive practice.
- How professional learning is provided across grade levels.
- How the impact of professional learning on student achievement and teachers' and educational leaders' practices will be measured.

The school, district, or BOCES describes how teachers, school leaders, and other school personnel are expected to participate in professional learning:

- An estimate of the average number of hours each teacher and leader is expected to participate in professional learning during the year.
- Expected participation in continuing teacher and leader education and other professional learning opportunities provided.
- How professional learning is continuous and sustained.
- How the methods and approaches for delivering professional learning have been shown to be effective and are appropriate for adult learners.

The school, district, or BOCES identifies how it will provide teachers and leaders with opportunities to complete 100 hours of continuing teacher and leader education (CTLE) and how these hours are allocated to language acquisition based upon instructional roles.

The plan describes other opportunities the schools, districts, or BOCES provides to educators to support professional growth (e.g., coaching, induction, professional learning communities).

Developing a Personal Professional Learning Plan

Use this form to identify specific instructional strategies or mindsets that you wish to improve, professional learning approaches to do so, and identify a means for assessing any change in your instruction and/or student learning.

8 Effective Instructional Strategies

Scaffold learning 	Monitor progress 	Provide new material in a way that supports learning 	Provide regular, appropriate feedback 
Model and role model 	Use questions to check for understanding and reflection 	Foster student ownership of learning 	Integrate opportunities for play-based instruction 

Instructional Mindsets

Intentionality 	Flexibility 	Differentiation and Individuation 	Reflection 

Which aspects of my instruction do I need to improve?

How will I actually improve my instruction?

How will I know my instruction is improving?

School Leaders' Roles Supporting Teacher Professional Learning

School leaders can support staff throughout development and implementation of their professional learning plan.

1. Provide leadership for high-quality professional learning

- Use the New York State Professional Standards and Practices Board detailed guidance document to design Professional Learning Plans to guide the continuing teacher and leader education (CTLE) for their teachers. The full guidance is available at http://www.nysed.gov/common/nysed/files/programs/postsecondary-services/plp-guidance.pdf
- Have knowledge of New York State Professional Development Standards to help teachers identify appropriate opportunities to build their instructional practice through high-quality opportunities (see http://www.highered.nysed.gov/tcert/pdf/pdstds.pdf).

2. Input and feedback to professional learning plan development

- Use discussion and shared reflection with teachers to identify areas of potential growth
- Review observations of the teachers and helping teachers to articulate a detailed professional learning plan.
- Recognize the potential for common needs across instructional staff, and consider joint or group opportunities for professional learning if they arise.

3. Provide practical supports to implement the professional learning plan

- Leaders may control funding for professional learning (e.g., fees, travel) or access to coaches or consultants (including use of local expert or master teachers).
- School leaders may design schedules that provide time for teachers to engage in professional learning embedded during the day or outside instructional time.

4. Monitoring and feedback on professional learning plan

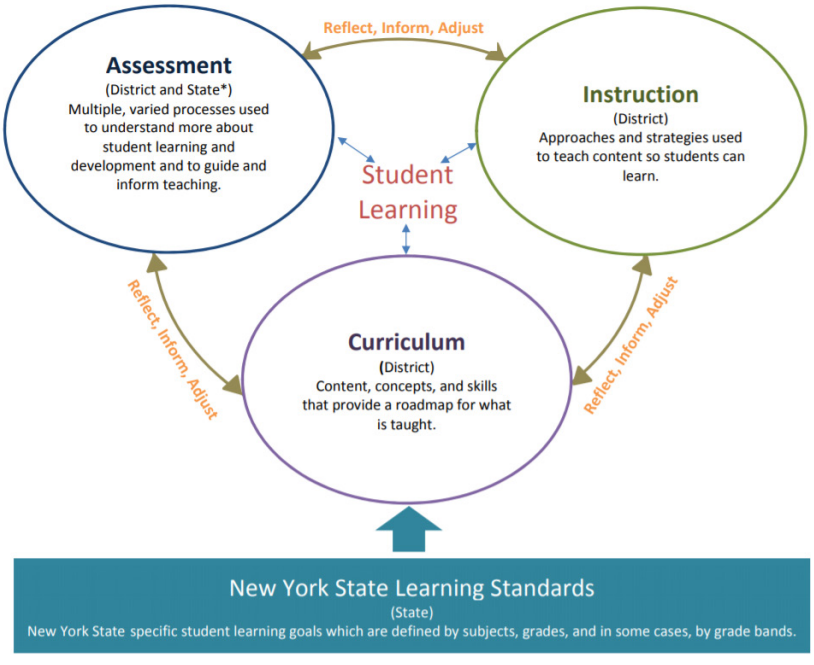
- Monitor progress, offering additional support if needed, to facilitate teacher learning.
- Leaders may also track the degree to which different types of professional learning appear effective both for specific teachers and in general as a means of guiding the professional learning of other teachers in the future.

NYSED developed the instructional cycle resource to demonstrate the relationships between learning standards, curriculum, instruction, and assessment.

The Instructional Cycle

In the instructional cycle the curriculum, instruction, and assessment components encircle the core concept of student learning.

The arrows signify the interconnectedness of the components and the central placement of student learning indicates that students are active participants in the instructional cycle. Understanding who students are, what they know, and what they are able to do is essential to providing instruction that is individualized, differentiated, culturally and linguistically relevant, and context based. This instructional cycle occurs on the foundation provided by the state learning standards, which provide a framework for local curricular planning.



LEARNING STANDARDS

P–3

nysed.gov/curriculum-instruction

Pre-K and Kindergarten

p12.nysed.gov/earlylearning/standards/

P–12

nysed.gov/next-generation-learning-standards

New York State Learning Standards

The state learning standards provide the foundation for what teachers and schools do through the instructional cycle. They describe a learning progression of what students can learn and do at various stages along a continuum as a result of instruction and learning experiences. The standards provide a framework for districts and local programs to develop local curricula and plan instruction that is individualized, differentiated, culturally and linguistically relevant, and context based. Teachers and leaders must understand the learning standards and how to use them.

Using the Standards

Learning standards (for pre-Kindergarten and K–12) were developed to guide educators in New York State. Though they articulate learning goals for all children, they are not designed to prescribe a lockstep progression of lessons or curricula for all children because each child's pace of development is different. State standards can provide a basis for informing assessments to help determine where students are along that continuum and to inform instructional approaches.

Building Understanding of the Standards

Knowledge of the learning standards is critical for teachers and leaders who work with children in school settings. This knowledge includes the content of the standards, how they are implemented through curricula and addressed through instruction.

Developing Deep Understanding of New York Learning Standards

Administrators, instructional coaches:

- Provide space for teachers to understand standards through training, peer and shared planning, and coaching.
- Encourage and enable teachers to identify and intentionally link standards with instructional approaches and assessment to meet each student's needs.
- Provide clear maps of standards and curricula elements.

Teachers:

- Engage in a close reading to understand the structure and content of the standards.

Curricula pose a challenge to P–3 instruction in that they tend to exist for prekindergarten or K–12 with little intentional connection between the two, which can result in the use of multiple curricula by P–3 teachers within the same school.

Professional learning may "come together in a set of experiences that are either clearly articulated, scoped, and sequenced or disorganized and haphazard, without focus and clarity . . . experience suggests that the latter is much more common than the former."[6]

- Recognize the variability across standards in their focus on discreet skills, content knowledge, and where they include instructional supports (and not).
- Consider multiple instructional strategies to use in helping students meet each standard.

Harnessing Standards Across Grade and Domains

Standards define the expected progression of children's learning and development within specified domains across grade levels. But they also provide a collected set of expectations for children at each grade across areas of learning and development. Teachers of young children plan lessons within the curriculum through both vertical (children on a continuum relative to a given standard) and horizontal (addressing standards across multiple domains) alignments.

Vertical and Horizontal Alignment of Standards

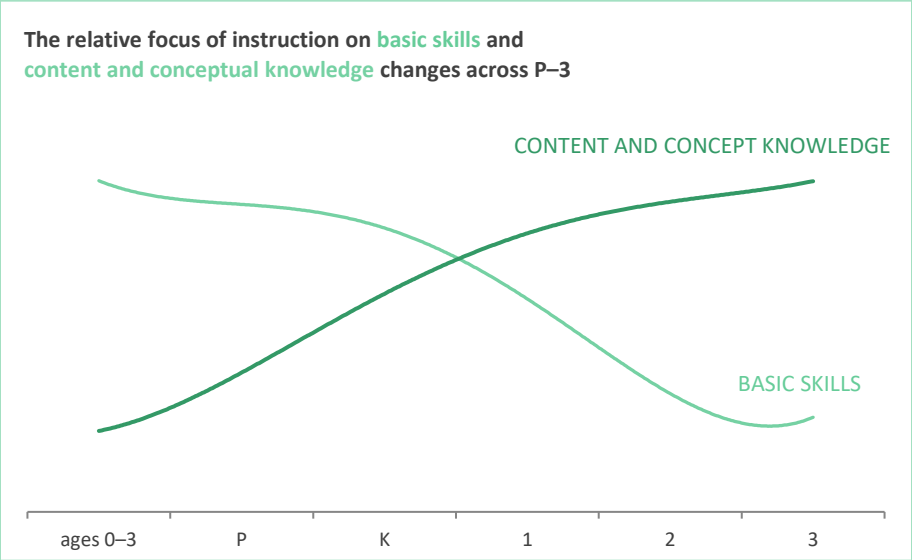
Vertical Structure	Horizontal Structure
▪ Well-developed standards describe the sequence and progression of learning across grades. When aligned vertically, learning standards connect seamlessly across the P–3 years.	▪ Standards define expectations across domains of learning and development at each grade. In this way, standards provide a horizontal view of student learning.

Balancing Skills and Knowledge

When looking at standards across P–3, there is a noticeable transition in the nature of the expectation for what is being learned. This transition reflects how children's learning occurs, which tends to be driven by skills building and refinement during initial periods of learning then focusing on acquiring and using knowledge in later learning. Importantly, the process of skill building in young children requires enduring instruction and support as skills

emerge and become more consistently usable by children over time. Skill building also lays the foundation for more rapid accumulation of knowledge and increased facility in employing knowledge to solve problems called upon in the later grades.

P–3 instruction is a collection of skills that teachers must be able to deploy within the broader context of tasks such as designing the physical space of the classroom, identifying materials, and setting the overall classroom tone.



The New York State Instructional Cycle

Curriculum

Curriculum—the *WHAT* of the instructional cycle—includes the content, concepts, and skills to be taught. Curriculum should have a flexible design to meet the needs of individual students and allow work at different levels on different activities. These needs include the cultural and linguistic contexts of local communities and students. Curriculum planning should follow a developmental sequence within content areas and emphasize robust, interactive, and integrated learning experiences that build on and support students to move just beyond their existing knowledge, experiences, and skill level.

Instruction should be balanced to meet individual, cultural, and linguistic needs and build on children's interests and prior knowledge.

Instruction

Instruction—the *HOW* of the instructional cycle—includes a range of strategies that are highly effective during the early years and tend to be built upon relationships and understanding of young students' needs collectively and individually. P–3 instruction

involves a combination of scaffolding, direct and indirect instruction, grouping, individualization, differentiation, and adaptation to enhance student learning. P–3 instruction also involves utilizing learning environments, interacting with students, creating a classroom culture, fostering student engagement, and embedding social and emotional supports.

Assessment

Assessment is the *WHERE ARE WE NOW?* and *WHERE SHOULD WE GO NEXT?* component of the instructional cycle. Data from ongoing assessments play a key role in the instructional cycle by creating a feedback cycle between student learning and instruction. Teachers use multiple forms of assessment including observation, work samples, and interactions to analyze students' understanding and progression toward learning goals; modify instructional strategies; refine classroom environments; provide feedback; and connect with families.

Making the Instructional Cycle Work

The instructional cycle captures the interplay between curriculum, instruction, and assessment and the foundation of learning standards. Instruction and assessment are intrinsically connected, ongoing, and cyclical in nature. Teachers use formal and informal assessment strategies to inform teaching practices on a regular basis. The content of instruction is driven by learning standards and given structure through aligned curricula. Therefore, teachers and principals should continuously consider:

- **Is the curriculum appropriately designed to address the targeted learning standards?**
- **Are a range of effective instructional strategies being used by the teacher to support children's learning?**
- **Is assessment occurring to allow for children's progress to be monitored and responded to?**

Tools for Planning Effective P–3 Instruction Within the Instructional Cycle

NYSED has developed a detailed **Instructional Cycle** summary sheet we have linked in this toolkit for principal and teacher reference.

The instructional cycle relies on the use of a high-quality curriculum. The **Selecting or Developing P–3 Curriculum** tool can be used to informally evaluate the quality of the curricula in place for P–3 in the school.

Assessment of young children is complicated; the **Assessment** summary sheet that summarizes (a) characteristics and uses of different types of assessments and (b) key features of assessments used to inform instruction to help principals and teachers identify the best assessment tools to guide instruction and recognize how these assessments may related to other types of assessments going on in their classrooms.

The **Teacher Self-Assessment** tool guides teacher to reflect on how they use assessments to shape their instruction for each child

NYSED Office of Early Learning Video Series The Instructional Cycle: Standards, Curriculum, Instruction, and Assessment

- Prekindergarten: https://vimeo.com/310600457
- Kindergarten: https://vimeo.com/318065086
- Grade 1 +Grade 2: https://vimeo.com/338082024

NYSED Instructional Cycle

http://www.nysed.gov/common/nysed/files/programs/curriculum-instruction/standards-and-the-instructional-cycle-document-11-30-17-conference.pdf

NEW YORK STATE EDUCATION DEPARTMENT

A RESOURCE FOR UNDERSTANDING THE RELATIONSHIPS BETWEEN THE STATE STANDARDS AND THE PREKINDERGARTEN-3RD GRADE INSTRUCTIONAL CYCLE

This resource offers teachers and leaders a structure for discussing the relationships and distinctions among learning standards, curriculum, instruction, and assessment within the context of prekindergarten – 3rd grade.

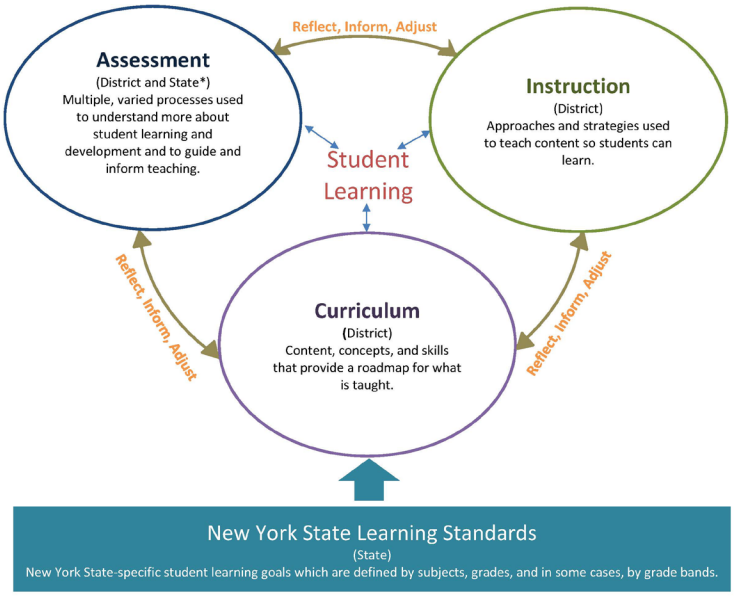
At the center of the model is student learning, surrounded by three elements that support the instructional cycle. The arrows signify the cyclical nature of teaching and learning and remind us that each element is connected and linked to the others. Importantly, the double arrows between student learning and the three elements remind us that students are active participants and at the core of the instructional process. Understanding who students are, what they know and are able to do are essential to providing instruction that is individualized, differentiated, culturally and linguistically relevant, and context-based. At the base of the cycle are learning standards, which provide a framework for local curricular planning.

The back of this page provides narrative descriptions of each element, what they do and how they connect, and links to resources.

Alignment and Coherence

The elements depicted in the graphic work together in multiple ways and operate as a system. State learning standards provide a framework for districts to develop and vertically and horizontally align local curriculum. Curriculum, instruction, and assessment function together in an ongoing manner, where one regularly informs the other in a plan – teach – reflect – adjust pattern to support student learning.

* State Assessments-Grades 3-8 ELA and Math; Grades 4 and 8 Science



A RESOURCE FOR UNDERSTANDING THE RELATIONSHIPS BETWEEN THE STATE STANDARDS AND THE P-3 INSTRUCTIONAL CYCLE		
	What They Are	**What They Do and How They Connect**
Standards	New York State-developed student learning goals (knowledge and skills) which are outlined by subjects and/or courses, domains, grades, and/or grade bands. New York State's first learning standards were developed in 1996 and several standard areas have undergone revisions since that time.	Standards are the "where are we going" or destination of the instructional cycle. State standards articulate a learning progression of what students can learn and do at various stages along a continuum as a result of instruction and learning experiences. They provide a framework for districts and local programs to develop local curricula and plan instruction that is individualized, differentiated, culturally and linguistically relevant, and context-based. While state standards articulate learning goals for all children, they are not designed to prescribe a lockstep progression of lessons or curricula for all children since each child's pace of development is not uniform and is not expected to be. Some children may move past some standards while moving towards others. State standards can provide a basis for informing assessments to help determine where students are along that continuum and to inform instructional approaches. New York State provides a prekindergarten supplement, aligned to the K-12 standards, which includes additional standards for: Approaches to Learning; Physical Development and Health; Social and Emotional Development; Communication, Language and Literacy; and Cognition and Knowledge of the World (math, science, social studies, the arts, technology). https://www.engageny.org/resource/new-york-state-prekindergarten-foundation-for-the-common-core
Curriculum	Locally-determined standards-based roadmap that outlines the content of what is going to be taught. Curriculum includes content, lessons, subject matter, themes, units of study, learning experiences, and courses (in upper middle and high school) that are designed to achieve long range learning goals for students.	Curriculum is the "what" of the instructional cycle. It includes an outline of the content, concepts, and skills that are going to be taught. Curriculum should have a flexible design to meet the unique needs of individual students, allowing students to work at different levels on different activities. This includes cultural and linguistic contexts of a local community and of individual students. Curriculum planning should follow a developmental sequence within content areas and emphasize robust, interactive, and integrated learning experiences that build on and support students to move just beyond his or her existing knowledge, experiences, and skill level. Curriculum should address all domains of learning and development since they are intrinsically linked and mutually supportive. Social and emotional development, physical development, and approaches to learning play critical roles in supporting young children's learning across all academic areas. Curricula that narrowly focuses on basic skills or relies on drills or worksheets should be avoided, especially in prekindergarten and kindergarten, since they have little meaning to young children.
Instruction	Locally-determined approaches and strategies used to teach so students can learn.	Instruction is the "how" of the instructional cycle. It includes the action of teaching to promote student learning outlined by curriculum and guided by what is understood about individual students. Instruction includes teaching strategies and approaches, scaffolding, direct and indirect instruction, grouping, individualization, differentiation, modifications, and adaptations used while teaching to improve student learning. It also includes utilizing learning environments, interacting with students, creating a classroom culture, fostering student engagement, and embedding social and emotional supports. Instruction should be balanced to meet individual, cultural, and linguistic needs, and build on children's interests and prior knowledge. Hands-on practice and purposeful play are meaningful vehicles for students to understand abstract concepts, hone skills, and for teachers to observe student learning and social interaction. A developmentally appropriate instructional approach is one that is grounded in child development theory and within a socially supportive context (http://www.naeyc.org/DAP). Instruction and assessment are intrinsically connected, ongoing, and cyclical in nature. Teachers use formal and informal assessment strategies to inform teaching practices on a regular basis.
Assessment	The varied processes used to understand more about student learning and to guide and inform instruction. Most assessments are locally-determined. New York State has state-determined assessments for ELA and Math in grades 3-8, science in grades 4 and 8, and the New York State Regents exams.	Assessment is the "where are we now" and "where should we go next" of the instructional cycle. There are multiple types of assessment, each with different functions. Screening and diagnostic assessments determine if a student has a specific learning or developmental need and how to best support the individual student need. Formative assessment is ongoing and used to inform instruction and individualize goals and learning experiences. Summative assessment is used to report information about the acquisition of knowledge and skills, typically at the end of a prescribed period of instruction and is often used to evaluate effectiveness. Summative assessments are not typically used in the early grades due to the nature of how very young children learn. Data gathered from assessments is used to guide and inform curriculum and instruction. Data from ongoing formative assessment plays a key role in the instructional cycle, creating a feedback cycle between student learning and instruction. Teachers use multiple forms of formative assessment (including observation, work samples, and interactions) to analyze students' understanding and progression towards learning goals, modify their instructional practices, refine classroom environments, provide feedback, and connect with families. For young children (P-3rd grade) it is critical that assessment be considered within the context of developmentally appropriate practices (http://www.naeyc.org/DAP).

Selecting or Developing P–3 Curriculum

Effective instruction is supported by a well-developed and implemented curriculum at each P–3 grade.

For each characteristic of a high-quality P–3 curriculum check the grades for which the statement is true. Then note areas for improvement.

	P	K	G1	G2	G3
The curriculum . . .					
is aligned with relevant state learning standards.	☐	☐	☐	☐	☐
addresses all domains of learning and development.	☐	☐	☐	☐	☐
includes content based on research of how young children learn.	☐	☐	☐	☐	☐
allows for teachers' intentionality and flexibility in instructional strategies.	☐	☐	☐	☐	☐
includes content to be integrated across the academic and developmental domains.	☐	☐	☐	☐	☐
provides for learning experiences initiated by the child.	☐	☐	☐	☐	☐
emphasizes child centered learning experiences and the teacher's role in supporting it.	☐	☐	☐	☐	☐
considers the range of children's abilities, including children with individualized education plans.	☐	☐	☐	☐	☐
considers diverse linguistic and cultural backgrounds, including strategies for supporting emergent multilingual learners.	☐	☐	☐	☐	☐
is aligned with grades immediately before and after.	☐	☐	☐	☐	☐

How many characteristics of a high-quality curriculum are present across the P–3 grades? Is the curriculum weaker or stronger for different grades?

What steps are necessary to improve the curriculum?

Assessment

Key Features of Assessments Used to Inform Instruction

1. Informing instruction is only one use of assessments; care must be taken to ensure that assessment tools and approaches are aligned with the purpose of the assessments.
2. Assessments used to inform instruction are often less formal than assessments used for other purposes.
3. Using multiple sources of information, including observations of child behavior and skills allows for the broadest view of each child's current ability and capacity.
4. As much as possible, assessments should occur within the context of the ongoing activity.
5. Assessments should reflect a current understanding of how children learn, focusing on specific skills at or near a child's current ability or capacity to best inform instruction.
6. Assessments should reflect a logical teaching sequence and can be embedded in or aligned with the curriculum being used.
7. Because assessment data—like children's learning—can be fluid and vary, frequent assessment is optimal to understand a child's current ability.
8. Assessments of any kind should be appropriate for each child's linguistic and cultural background and free of any known biases.
9. To be useful, assessments must be valid (i.e., accurately measure as intended) and reliable (i.e., provide consistent information).

Characteristics and Uses of Different Types of Assessments

Screening and Diagnostic Assessments	Formative Assessment	Summative Assessment
▪ Used to determine if a student has a specific learning or developmental needs and how best to support these needs. ▪ Screening assessments are usually brief and can identify children who might be more likely to have special needs. ▪ Diagnostic assessments are more specialized and are used to clarify a child's special challenges.	▪ Tends to be ongoing. ▪ Used to inform instruction and individualize goals and learning experiences. ▪ Can be formal or informal in nature.	▪ Used to report information about the acquisition of knowledge and skills, typically at the end of a prescribed period of instruction. ▪ Often used to evaluate effectiveness. ▪ Tend to be more formal.

Teacher Self-Assessment

Rate your use of the following assessment best practices to inform instruction.

I'd rate my skills in this area as . . .	Weak	Moderate	Strong
Ongoing assessment is a regular part of my practice.	☐	☐	☐
I use assessment to look at all domains of learning and development.	☐	☐	☐
I use multiple means to gather data including portfolios, observations, anecdotal notes, and formal assessments.	☐	☐	☐
I ensure the assessment tools I use are measuring what I want information about.	☐	☐	☐
I know how to conduct each assessment so that findings will be an accurate representation of the child.	☐	☐	☐
I reach out to the child' family and other teachers to see what information they may have to guide instruction.	☐	☐	☐
I share information about the child's assessment with other teachers who provide instruction to the child.	☐	☐	☐
I keep assessment information secure to protect the child.	☐	☐	☐
I ensure that assessment data are accessible and secure for sharing if/when children transition (across grades or schools.	☐	☐	☐
I involve children in their assessment process, including asking clarifying questions and providing feedback (as appropriate for the child).	☐	☐	☐

Source: Partially adapted from *Supporting Every Young Learner: Maryland's Guide to Early Childhood Pedagogy Birth to Age 8* https://earlychildhood.marylandpublicschools.org/system/files/filedepot/3/pedagogyguide-learningstandards_042015_1.pdf

References

Introduction

[1]Institute of Medicine & National Research Council. (2015). *Transforming the workforce for children birth through age 8: A unifying foundation* (p. 1). Washington, DC: National Academies Press.

[2]Kauerz, K. (2013, March/April). The path to lifelong success begins with P–3. *Principal*: 14.

[3]Kauerz, K. (2006). *Ladders of learning: Fighting fade-out by advancing PK–3 alignment* (Issue Brief No. 2): 1. Washington, DC: New America Foundation.

[4]Ibid.

[5]Stipek, D., Franke, M., Clements, D., Farran, D., & Coburn, C. (2017). PK–3: What Does It Mean for Instruction? *Social Policy Report*, 30, 2: 6.

[6]*See* Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest*, *10*(2): 49–88.

See also Phillips, D. A., Lipsey, M. W., Dodge, K. A., Haskins, R., Bassok, D., Burchinal, M. R., . . . Weiland, C. (2017). *The current state of scientific knowledge on pre-kindergarten effects.* Washington, DC: Brookings and Duke Center for Child and Family Policy. https://www.brookings.edu/wp-content/uploads/2017/04/duke_prekstudy_final_4-4-17_hires.pdf

[7]Pianta, R., Downer, J., & Hamre, B. (2016). Quality in early education classrooms: Definitions, gaps, and systems. *The Future of Children*, *26*(2): 119–137.

[8]See Bassok, D., Finch, J., Lee. R., Reardon, S. & Waldfogel, J. (2016). Socioeconomic gaps in early childhood experiences 1998 to 2010. *AERA-Open, 2(3)*: 1–22.

Effective P–3 Instruction

[1]Bronfenbrenner, U. & Morris, P. A. (1998). The ecology of developmental process. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Theoretical models of human development* (Vol. 1, 5th ed.: 992–1028). New York: Wiley.

[2]Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth though age 8* (3rd ed.: xii). Washington, DC: National Association for the Education of Young Children.

[3]Araujo, M. C., Carneiro, P., Cruz-Aguayo, Y., & Schady, N. (2016). Teacher Quality and Learning Outcomes in Kindergarten. *Quarterly Journal of Economics, 131(3)*: 1415–53.

[4]Pianta, R. C., Belsky, J., Houts, R., & Morrison, F. (2007). Opportunities to learn in America's elementary classrooms. *Science*, *315*(5820): 1795–1796.

[5]See Clements, D. H., Sarama, J., Wolfe, C. B., & Spitler, M. E. (2013). Longitudinal evaluation of a scale-up model for teaching mathematics with trajectories and technologies: Persistence of effects in the third year. *American Educational Research Journal, 50(4)*: 812–850

See also Lesaux, N. (2013). *PreK–3rd: Getting literacy instruction right* [PreK–3rd Policy to Action Brief No. 9]. New York: Foundation for Child Development.

[6]Magnuson, K. A., Ruhm, C., & Waldfogel, J. (2007). The persistence of preschool effects: Do subsequent classroom experiences matter?. *Early Childhood Research Quarterly*, *22*(1): 18–38

See also Stipek, D., Franke, M., Clements, D., Farran, D., & Coburn, C. (2017). PK–3: What does It mean for instruction? *Social Policy Report*, 30, 2.

Leader Support for Effective P–3 Instruction

[1]See Manship, K., Farber, J. Smith, C., & Drummond, K. (2016). *Case studies of schools implementing early elementary strategies: Preschool through third grade alignment and differentiated instruction.* Washington, DC: U.S. Department of Education. Available at https://www2.ed.gov/rschstat/eval/implementing-early-strategies/report.pdf.

Professional Learning for Effective P–3 Instruction

[1]Hamre, B. K., Partee, A., & Mulcahy, C. (2017). Enhancing the impact of professional development in the context of preschool expansion. *AERA Open, 3*(4): 3. Available at https://journals.sagepub.com/doi/pdf/10.1177/2332858417733686.

[2]Ibid: 4.

[3]See Gulamhussein, A. (2013). *Teaching the teachers: Effective professional development in an era of high stakes accountability.* Alexandria, VA: Center for Public Education.

See also National School Board Association & National Research Council. (2015). *Transforming the workforce for children birth through age 8: A unifying foundation.* Washington, DC: The National Academies Press.

[4]See National Research Council. (2015). Transforming the workforce for children birth through age 8: A unifying foundation. Washington, DC: The National Academies Press.

See also Zaslow, M., Tout, K., Halle, T., Vick Whittaker, J., & Lavelle, B. (2010). *Toward the identification of features of effective professional development for early childhood educators.* Washington, DC: U.S. Department of Education.

[5]Hamre, B. K., Partee, A., & Mulcahy, C. (2017). Enhancing the impact of professional development in the context of preschool expansion. *AERA Open, 3*(4): 3. Available at: https://journals.sagepub.com/doi/pdf/10.1177/2332858417733686.

[6]Ibid: 7.

Additional Resources

The science behind how children learn during the P–3 years is both deep and continuing to evolve. The resources included here take teachers and school leaders deeper into critical research and practice to support effective P–3 instruction.

Early Childhood Assessment: Why, What, and How

This authoritative book prepared by a committee convened by the National Academy of Sciences summarizes best practices in assessment of young children and the science underlying them. In particular underscores the multiple purposes for assessing children and the need to careful align the tools used to them. It also emphasizes the importance for child assessment to occur within a comprehensive approach that ensures high quality assessment practices and appropriate responses to the results (e.g., referral for services, instructional choices, etc.).

Snow, C. E. & Van Hemel, S. B. (2008). *Early childhood assessment: Why, what, and how*. Washington, DC: The National Academies Press. Available at https://www.nap.edu/catalog/12446/early-childhood-assessment-why-what-and-how

Leading Pre-K–3 Learning Communities: Competencies for Effective Principal Practice

This guide developed by the National Association of Elementary School Principals summarizes 6 key competencies principals need to develop when providing leadership to schools that include P–3. In addition to background on each competency, the guide also includes aligned self-assessments for principals and leaders to guide their own practice.

National Association of Elementary School Principals. (2014). *Leading Pre-K–3 learning communities: Competencies for effective principal practice*. Alexandria, VA: Author. Available at https://www.naesp.org/sites/default/files/docs/leading-pre-k3-learning-communities.pdf

Eager to Learn: Educating Our Preschoolers

This comprehensive study from the National Academy of Sciences brings together research findings on how young children learn and the impact of early learning on later outcomes. Research focuses on variations in learning among individuals and children from different groups; the importance of health, safety, and nutrition; and social and emotional contributions to early learning. The book also discusses teacher-child relationships, the organization and content of curriculum, meeting the needs of those children most at risk of school failure, teacher preparation, and assessment of teaching and learning.

National Research Council. (2000). *Eager to learn: Educating our preschoolers*. Washington, DC: The National Academies Press. Available at https://www.nap.edu/catalog/9745/eager-to-learn-educating-our-preschoolers

Using Developmentally Appropriate Practices to Teach the Common Core: Grades Pre-K–3

This book highlights the importance of using best instructional practices for young children in the context of the Common Core State Standards (CCSS). Though the details address the Common Core, the principles introduced in the book apply to instruction in the context of any rigorous P–3 standards. With a dual focus of understanding the standards and multiple instructional approaches to effective teach them, this book fits within NYSED's instructional cycle.

Goldstein, L. S. (2015). *Using developmentally appropriate practices to teach the Common Core: Grades Pre-K–3*. London: Routledge.

Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation

This work, developed by a committee of experts convened by the National Academy of Sciences, focuses on the preparation and ongoing learning needs of professionals working with young children. Chapters focus on the skills and competencies needed for early educators and models of professional development.

Institute of Medicine and National Research Council. (2015). *Transforming the workforce for children birth through age 8: A unifying foundation.* Washington, DC: The National Academies Press. Available at https://www.nap.edu/catalog/19401/transforming-the-workforce-for-children-birth-through-age-8-a

Framework for Planning, Implementing, and Evaluating P–3 Approaches

This brief provides school and local leaders a framework for putting into place coherent, aligned P-3 programs within schools. It includes critical decision points for leaders. The framework aligns well with NYSED's instructional cycle by integrating curriculum, instruction, and assessment.

Kauerz, K. & Coffman, J. (2019). *Framework for planning, implementing, and evaluating P–3 approaches* (2nd ed.). Denver, CO: National P–3 Center, School of Education and Human Development, University of Colorado Denver. Available at https://nationalp-3center.org/resources/framework-for-planning-implementing-and-evaluating-p-3-approaches/

Effective Teacher Professional Development

This brief provides a review of research-based characteristics of high-quality professional development for teachers. It can be helpful in identifying high-quality opportunities for teacher learning.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Palo Alto, CA: Learning Policy Institute. Available at https://learningpolicyinstitute.org/product/effective-teacher-professional-development-report

Appendix
Review of Research and Key Elements of Effective P–3 Instruction

This appendix contains a nonexhaustive overview of research on instruction, with a focus on the P–3 years. Beginning by identifying what effective instruction may mean, the section includes an overview of research on instructional orientation and mindset. Following an overview of various instructional practices common in K–12 or pre–K, a brief set of core effective P–3 instructional strategies is identified.

Identifying Effective Instruction

This review of instruction begins by noting 2 dominant approaches to identifying effective instruction. These approaches map onto the historic divide between early childhood education (ECE) and primary education (K–12). Whereas early childhood education instruction is dominated by the developmentally appropriate practice (DAP) model,[1] in K–12 effectiveness has generally been driven by an evidence-based practice (EBP) model. This contrast is important to consider when identifying effective instructional strategies.

The degree to which a practice is evidence based depends on its effects on student outcomes as measured through experimental research—regardless of whether it is well aligned with principles of child development and learning. The degree to which a practice is developmentally appropriate depends on how well it aligns with theoretical research of child development—regardless of whether it has been shown to produce measurable student progress in an experimental study. Therefore, it is possible for a given practice to be either evidence based or developmentally appropriate, both, or neither.[2]

To marry 2 deep sets of literature it is important to identify effective instructional strategies by examining the convergence between evidence-based practices and developmentally appropriate practice[3]—especially when considering instruction within the P–3 instructional cycle. Here instruction provides the *how* to meet the learning standards designed through a developmentally appropriate lens.[4] Also within the cycle, instruction is related to a curriculum—though consistent with developmentally appropriate practice—might not have the specific research to be considered evidence based.[5] Although federal education policy clearly emphasizes evidence-based practices, there is some flexibility in their implementation to make them relevant to local context as long as essential aspects are retained.[6] Therefore, in identifying effective P–3 instructional strategies, fundamental or core elements of instructional strategies from both evidence-based practices and developmentally appropriate practice should be considered.

Developmentally Appropriate Practice

The developmentally appropriate practice model provides a broad framework for early childhood education that incorporates instructional practices. It is important, however, to recognize that the developmentally appropriate practice model as a holistic approach has been the focus of some research and a strong research-based argument tying developmentally appropriate practices to our understanding of early brain development.[7] There has also been an effort to articulate specific instructional strategies derived from developmentally appropriate practice that are consistent with how the brain develops, providing a strong rationale for the use of developmentally appropriate practice.[8]

However, efforts to demonstrate the effectiveness of developmentally appropriate practice on child learning outcomes have produced inconsistent findinhs but also general agreement that many early studies had significant methodological challenges.[9] For example, correlational studies link increased use of developmentally appropriate practice with positive academic and social outcomes for children.[10] In addition, qualitative reviews of the research literature concluded that developmentally appropriate practice has a positive effect on child outcomes, though these reviews could not isolate specific elements of developmentally appropriate practice.[11] Collectively the data are suggestive but would not meet the standard for evidence-based practices.

Some of this challenge stems from the challenge inherent in implementing a broad framework rather than a specific set of instructional activities. Teachers often report an understanding of developmentally appropriate practice, but their practice shows some inconsistency in how they apply it to their classroom activities.[12] One author referred to the disconnect between learning and practicing developmentally appropriate practice as a "pedagogical challenge of our time."[13] This disconnect might be attributable to the actual practice of developmentally appropriate practice is too abstract—or it may be a challenge for our teacher education and support systems. For example, one study found that teachers who completed National Board Certification indicated deeper understanding of developmentally appropriate practice and reported using it to guide instruction for consistency.[14] In another study teachers' experience was correlated with their reported use of developmentally appropriate practice.[15] Teachers' reported that the use of developmentally appropriate practice might also be affected by changes in the broader P–3 landscape. For example, Head Start teachers reported decreased use of developmentally appropriate practice over time (between 2000 and 2009).[16] This period of time corresponds with an increasing academic focus in kindergarten and the rise of high-stakes testing, likely affecting instructional choices made by early educators.[17]

Instruction Orientation

Instruction can broadly be viewed as a relative orientation of the role(s) of teacher and child. In general, early education tends toward the child-centered end of the kindergarten continuum, although there are certainly strong, evidence-based practices that would be described as teacher directed (e.g., explicit instruction in phonemic mapping as part of early literacy). Though compelling, this view of instruction provides only a broad approach—not specifics about instruction. For example, the teaching strategies suggested within developmentally appropriate practice range from those that tend to be directive (e.g., provide clear directions) to reactive (e.g., provide clear feedback) to strategies that may

be driven by either the teacher or the child (e.g., ask questions). Thus whereas acknowledging a general orientation a teacher has in the classroom is valuable, doing so is not itself indicative of the appropriateness or effectiveness of any specific instructional strategy.

Child-centered practices have been shown to predict academic and social gains across the P–3 education period.[18] Nevertheless, there is pressure to adopt less child-centered practices as children progress through the P–3 years. This pressure might be perceived as strongest by early educators who endorse a child-centered approach. They report more pressure to move toward teacher-directed instruction, which they perceive as more common once children enter Grade 1, partly out of a concern that they may be judged for not adequately preparing children for the elementary years.[19] These perceptions might be accurate: studies of instruction across P–3 grades shows a shift between kindergarten and Grade 1 toward more academic and teacher-directed practices.[20]

Though generally considered contrary to developmentally appropriate practice, teacher-directed instruction is present in early education settings, often in a limited way. In other countries, however, more teacher-directed instruction is culturally appropriate (e.g., South Korea[21]). In addition, the specific format (e.g., small group, large group) might facilitate more effective teacher-directed instructional practices.[22] Indeed, one study noted specific associations between child outcomes and teacher use of child-centered instruction and a different set of positive associations for teacher-directed instruction, typically language-related outcomes.[23]

The takeaway from the research on instruction orientation is that in some cases there seems to be an advantage of taking a child-centered approach, and at other times adopting a teacher-led instructional approach might be more effective. Indeed, identifying when to utilize each orientation (and being able to use either effectively) may be a critical hallmark of an effective P–3 educator.

Effective P–3 Instructional Mindset

P–3 student learning, though variable, is supported by effective instructional strategies common across the span. Clearly, when considering the interface between evidence-based practices and developmentally appropriate practice there needs to be an integration between specific practices that are evidence based with practices that are responsive to each child. This section outlines some critical features of P–3 pedagogy, which marries instructional skills and some instructional awareness in the context of the P–3 instructional cycle. Though high-quality P–3 instruction should be informed by the *Guidelines for Developmentally Appropriate Practice*,[24] several broadly defined instructional mindsets are highlighted.

Intentionality

Increasingly, the cornerstone of high-quality early educators is their intentionality.[25] In P–3 intentionality is driven by multiple simultaneous factors—the learning standards that might be the target of instruction, the curriculum being used, but also knowledge of each child's current state of learning and development among others. It requires knowledge of all those factors and knowledge of child development and learning and the range of instructional practices that may be generally effective or that have proven effective for an individual child before. Intentionality is what provide the instructional meaning and purpose for teachers.

Flexibility

Effective instruction is intentional, but not inflexible. Educators must be aware of a range of instructional and how to use them. It is also essential for teachers to identify the need to switch to an alternative practice to support a given child in a specific moment. Likewise, effective P–3 educators are flexible in their overall approach. Understanding how and when to use a child-centered approach verses a teacher-led approach is an important part of flexibility. In addition, P–3 educators should recognize that learning can occur in multiple contexts, locations, and formats (e.g., small group, large group).

Differentiation and Individuation

Effective instructional practices in P–3 tend to meet the needs for most students, even if with slight modifications for some individuals or groups of students. However, because there is broad diversity of children in P–3 classrooms, some instructional practices—though generally effective—might not be effective or might need to be modified to meet the needs of every child. Effective P–3 instruction may move between highly individualized and highly generalized depending upon the instructional goals, context, and diversity of abilities among the students. Teachers need to be flexible enough to allow their instruction to be efficient and effective.

Reflection

Effective instruction includes active self-examination—that is, identifying when a specific instructional orientation, approach, or context has become a default rather than relying on intentionality, creativity, and autonomy to make instructional decisions. Sometimes a teacher becomes comfortable with a given approach to the point of overreliance on the approach despite its effectiveness with children.

Effective P–3 Instructional Strategies

These instructional mindsets outline how teachers can make instructional decisions. This section focuses specifically on instructional strategies. Numerous reviews of the research on instructional strategies have resulted in lists related to student learning outcomes. The following tables focus on 2 sets of instructional strategies—one derived from research in K–12 and one from early education (typically birth through Grade 3). Although each set likely resonates with the educators for which they were initially constructed, some core elements occur in both sets.

Instructional Strategies Identified in K–12 and Early Childhood Education Research

Research-Based Principles of Instruction (K–12)

1. Begin a lesson with a short review of previous learning.
2. Present new material in small steps with student practice after each step.
3. Ask a large number of questions and check the responses of all students.
4. Provide models.
5. Guide student practice.
6. Check for student understanding.
7. Obtain a high success rate.
8. Provide scaffolds for difficult tasks.
9. Require and monitor independent practice.
10. Engage students in weekly and monthly review.

Source: Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. *American Educator*, *36*(1): 12–39.

10 Effective Teaching Strategies in Developmentally Appropriate Practice (Early Childhood Education)

1. Acknowledge what children do or say. Let children know that we have noticed by giving positive attention, sometimes through comments, sometimes through just sitting nearby and observing.
2. Encourage persistence and effort rather than just praising and evaluating what the child has done.
3. Give specific feedback rather than general comments.
4. Model attitudes, ways of approaching problems, and behavior toward others, showing children rather than just telling them.
5. Demonstrate the correct way to do something. This usually involves a procedure that needs to be done in a certain way.
6. Create or add challenge so that a task goes a bit beyond what the children can already do.
7. Ask questions that provoke children's thinking.
8. Give assistance (such as a cue or hint) to help children work on the edge of their current competence.
9. Provide information, directly giving children facts, verbal labels, and other information.
10. Give directions for children's action or behavior

Source: https://www.naeyc.org/resources/topics/dap/

The **8 effective instructional strategies** promoted in this toolkit are *integrated instructional practices* drawn from the intersection of evidence-based practices and developmentally appropriate practice:

1. **Scaffold learning.** Scaffolding is its own identifiable instructional activity, but it is also built on several others, including identifying where children are and providing challenges to support their advancement
2. **Monitor progress.** Regardless of how it is done, teachers pay attention to how well children are acquiring new skills and learning new materials. Teachers use a range of formal and informal, ongoing assessments to understand each child's current learning and development needs on a regular basis.
3. **Provide new material in a way that support children's learning.** Learning is built around acquiring new information, so teachers can (and should) manage how much and how intensely new information is provided with a learning goal in mind (N.B. exposure to new experiences and ideas without a specific learning goal has its own value but might not be managed so closely). Importantly, although the teacher manages the material, this does not mean the teacher is leading—this can be material delivered in response to children's questions, expressions of interest, or chance learning opportunities.
4. **Provide regular, appropriate feedback.** Broadly construed feedback begins by recognizing the child and acknowledging his or her value, interests, learning, and so on. But it also means providing guiding feedback during problem solving. Feedback is both reflective of current learning but also encourages continued and future learning.
5. **Model and role model.** Children learn from seeing and experiencing. Modeling (explicitly demonstrating an action or skill) and role modeling (implicitly demonstrating an action or skill) both provide important opportunities for students to learn and develop skills.
6. **Use questions to check for understanding and reflection.** Teachers often ask questions to check for understanding, which is useful for monitoring and also laying a base for ongoing discussion. Questions can also be used as instructional tools to spark child reflection to guide deeper thinking and identify children's interests. Open-ended questions, and questions built around the comedy improvisation trope of "Yes, and . . . " can lead to deep insights or creativity and also support children's language skills.
7. **Foster student ownership of learning.** Instruction should be intentional, but there is room within instructional practice to allow children to make choices about learning and lead instruction. Simplistically, providing student choice allows teachers to pivot from one instructional practice or goal to another based upon children's responses to the current practice and/or goal. Certainly, student choice may be constrained within the broader instructional goals but given children ownership over learning not only reinforces learning and allows them to guide teachers towards potentially more effective practice, it also empowers student learning that can carry into later learning opportunities.
8. **Integrate opportunities for play-based instruction.** Although it is not a specific instructional strategy, there is growing literature on how play can be used to support instruction. There is also compelling evidence that children learn when teachers use play-based learning strategies.[26]

This list is not exhaustive but provides a foundational set of instructional tools that are appropriate and effective for children in P–3. They may be applied to any domain of learning and development, and likely can be effectively used in many learning formats.

P–3 educators can call upon a range of instructional practices, using the principals for pedagogy noted above to guide their identification and use throughout the day. Though not exhaustive, these instructional practices and guidelines provide a foundation for high-quality instruction across the P–3.

Appendix References

[1]Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth though age 8* (3rd ed.). Washington, DC: National Association for the Education of Young Children.

[2]Farley, K. S., Brock, M. E., & Winterbottom, C. (2018). Evidence-based practices: Providing guidance for early childhood practitioners. *Journal of Research in Childhood Education, 32(1)*: 1–13.

[3]Goldstein, L. S. (2008). Teaching the standards is developmentally appropriate practice: Strategies for incorporating the sociopolitical dimension of DAP in early childhood teaching. *Early Childhood Education Journal, 36*, 253–260.

[4]Snow, K. (2015). *A framework for considering the validity of learning standards*. National Association for the Education of Young Children, 10, 1–18: 2. Retrieved from https://pdfs.semanticscholar.org/e78c/d853d8c793a59f6e2981e311f8083bee74ee.pdf

[5]Preschool Curriculum Evaluation Research Consortium. (2008). *Effects of preschool curriculum programs on school readiness*. Washington, DC: U.S. Government Printing Office.

[6]Buysse, V., Wesley, P. W., Snyder, P., & Winton, P. J. (2006). Evidence-based practice: What does it really mean for the early childhood field? *Young Exceptional Children, 9*(4): 2–11

see also Institute of Education Sciences. (2003). Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide. Washington, DC: Author.

[7]Rushton, S., & Larkin, E. (2001). Shaping the learning environment: Connecting developmentally appropriate practices to brain research. *Early Childhood Education Journal*, *29*(1): 25–33.

[8]Rushton, S., Juola, A., & Larkin, E. (2009). Neuroscience, play, and early childhood education: Implications, connections and assessment. *Early Childhood Education Journal, 37*: 351–361.

[9]See Horn, M. L. V., Karlin, E. O., Ramey, S. L., Aldridge, J., & Snyder, S. W. (2005). Effects of developmentally appropriate practices on children's development: A review of research and discussion of methodological and analytic issues. *Elementary School Journal*, *105*(4): 325–351

see also Van Horn, M. L., & Ramey, S. L. (2003). The effects of developmentally appropriate practices on academic outcomes among former Head Start students and classmates, Grades 1–3. *American Educational Research Journal, 40*(4): 961–990.

[10]Marcon, R. (2002). Moving up the grades: Relationship between preschool model and later school success. *Early Childhood Research and Practice, 4*(1). Retrieved from http://ecrp.uiuc.edu/v4n1/marcon.html

see also Schmidt, H. M., Burts, D. C., Durham, R. S., Charlesworth, R., & Hart, C. H. (2007). Impact of the developmental appropriateness of teacher guidance strategies on kindergarten children's interpersonal relations. *Journal of Research in Childhood Education*, *21*(3): 290–301.

[11]Brown, C. P., & Lan, Y. C. (2013). The influence of developmentally appropriate practice on children's cognitive development: A qualitative metasynthesis. *Teachers College Record*, *115*(12): 1–36.

[12]Mohamed, A. H. H., & Al-Qaryouti, I. A. (2016). The association between preschool teachers' beliefs and practices about developmentally appropriate practices. *Early Child Development and Care*, *186*(12): 1972–1982.

[13]Cooper, P. M. (2019). The enduring and evolving nature of early childhood care and education: Pedagogical challenges in our time. *The Wiley Handbook of Early Childhood Care and Education*: 401–426.

[14]McKenzie, E. N. (2013). National Board Certification and developmentally appropriate practices: Perceptions of impact, *Journal of Research in Childhood Education, 27,* 2: 153–165.

[15]Jones, L., Burts, D., Buchanan, T., & Jambunathan, S. (2000). Beginning prekindergarten and kindergarten teachers' beliefs and practices: Supports and barriers to developmentally appropriate practices. *Journal of Early Childhood Teacher Education*, *21*(3): 397–410.

[16]Walter, M. C., & Lippard, C. N. (2017). Head Start teachers across a decade: Beliefs, characteristics, and time spent on academics. *Early Childhood Education Journal*, *45*(5): 693–702.

[17]See Bassok, D., & Latham, S. (2017). Kids today: The rise in children's academic skills at kindergarten entry. *Educational Researcher*, *46*(1): 7–20

see also Brown, C. P., & Lee, J. E. (2012). How to teach to the child when the stakes are high: Examples of implementing developmentally appropriate and culturally relevant practices in prekindergarten. *Journal of Early Childhood Teacher Education*, *33*(4): 322–348.

[18]Lerkkanen, M. K., Kiuru, N., Pakarinen, E., Poikkeus, A. M., Rasku-Puttonen, H., Siekkinen, M., & Nurmi, J. E. (2016). Child-centered versus teacher-directed teaching practices: Associations with the development of academic skills in the first grade at school. *Early Childhood Research Quarterly*, *36*: 145–156.

see also Huffman, L. R., & Speer, P. W. (2000). Academic performance among at-risk children: The role of developmentally appropriate practices. *Early Childhood Research Quarterly*, *15*(2): 167–184.

see also Pakarinen, E., & Kikas, E. (2019). Child-centered and teacher-directed practices in relation to calculation and word problem solving skills. *Learning and Individual Differences*, *70*: 76–85.

[19]Parker, A., & Neuharth-Pritchett, S. (2006). Developmentally appropriate practice in kindergarten: Factors shaping teacher beliefs and practice. *Journal of Research in Childhood Education*, *21*(1): 65–78.

[20]La Paro, K. M., Rimm-Kaufman, S. E., & Pianta, R. C. (2006). Kindergarten to 1st grade: Classroom characteristics and the stability and change of children's classroom experiences. *Journal of Research in Childhood Education*, *21*(2): 189–202.

[21]See Clarke-Stewart, K. A., Lee, Y., Allhusen, V. D., Kim, M. S., & McDowell, D. J. (2006). Observed differences between early childhood programs in the US and Korea: Reflections of "developmentally appropriate practices" in two cultural contexts. *Journal of Applied Developmental Psychology*, *27*(5): 427–443.

[22]Cabell, S. Q., DeCoster, J., LoCasale-Crouch, J., Hamre, B. K., & Pianta, R. C. (2013). Variation in the effectiveness of instructional interactions across preschool classroom settings and learning activities. *Early Childhood Research Quarterly*, *28*(4): 820–830.

[23]Goble, P., Hanish, L. D., Martin, C. L., Eggum-Wilkens, N. D., Foster, S. A., & Fabes, R. A. (2016). Preschool contexts and teacher interactions: Relations with school readiness. *Early education and development*, *27*(5): 623–641

See also Goble, P., & Pianta, R. C. (2017). Teacher–child interactions in free choice and teacher-directed activity settings: Prediction to school readiness. *Early Education and Development*, *28*(8): 1035–1051.

[24]See Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally Appropriate Practice in Early Childhood Programs Serving Children From Birth Though Age 8* (3rd ed.). Washington, DC: National Association for the Education of Young Children.

[25]Epstein, A. S. (2007). *The Intentional Teacher: Choosing the Best Strategies for Young Children's Learning*. Washington, DC: National Association for the Education of Young Children.

[26]See Hirsh-Pasek, K., Berk, L. E., & Singer, D. (2009). *A mandate for playful learning in preschool: Applying the scientific evidence*. Oxford University Press.

See also McGuinness, C., Sproule, L., Bojke, C., Trew, K., & Walsh, G. (2014). Impact of a play-based curriculum in the first two years of primary school: literacy and numeracy outcomes over seven years. *British Educational Research Journal, 40*(5): 772–795.