B AS I C S

BASICS ON ASSESSMENT SYSTEMS, INFORMS AND CULTIVATES SUCCESS

B A S I C S O N E

Children are born with an incredible capacity and desire to learn. More than 40 years of research confirms the foundational importance of early education and care for children’s school and life success. It is essential that children’s first experiences are robust ones, steeped in activities that develop critical thinking and problem-solving skills, a deep understanding about themselves in a social society, and age-appropriate content.

**ASSESSMENTS**

**WHAT** • A systematic process to measure or evaluate the characteristics or performance of individuals, programs, or other entities for purposes of drawing inferences.

**WHY** • Information gathered informs the design of the learning environments which will help a child grow to his or her optimum developmental potential, whether this is from birth to age eight or third grade. Learning environments: classrooms, curriculum, educators, and programs.

**PURPOSE OF ASSESSMENTS**

- Support learning and instruction
- Identify children who need additional services
- Program and educator evaluations and to monitor trends
- High-stakes accountability

**CURRICULUM**

**WHAT** • Curriculum is content or information that is going to be taught (daily–weekly) and methods that are used to teach that content. This content is built on learning standards and based on scientific research and reflects age, culture, and linguistically-appropriate skills and developmental stages of the children in the program.

**HOW** • Create or use a curriculum that is aligned with Pennsylvania Learning Standards for Early Childhood, the program goals, and requirements or standards. Curriculum decisions come from three sources: children within the program, families, and the educators or adults with whom they interact.
WHAT • Learning standards provide the framework for learning and the foundational information for what children should know and be able to do. Pennsylvania Learning Standards for Early Childhood build on information children learned previously, creating a continuum of learning that assures consistent and linked learning that begins in infancy, increasing in complexity as it extends through graduation.

HOW • Pennsylvania Learning Standards for Early Childhood are research-based according to age and development, and form the foundation for curriculum, assessment, instruction, and intervention within early care and education programs.

KEY LEARNING AREAS

- **Approaches to Learning Through Play**
  - Constructing, Organizing and Applying Knowledge

- **Language and Literacy**
  - English Language Arts

- **Scientific Thinking**
  - Exploring, Inquiry, and Discovery

- **Social Studies Thinking**
  - Connecting to Communities

- **Mathematical Thinking and Expression**
  - Exploring, Processing, and Problem Solving

- **Creative Thinking and Expression**
  - Communicating through the Arts

- **Health, Wellness and Physical Development**
  - Learning About My Body

- **Social and Emotional Development**
  - Student Interpersonal Skills

- **Partnerships for Learning**
  - Families, Learning Environments, and Communities

WORK TOGETHER TO ACHIEVE OPTIMUM CHILD DEVELOPMENT

“The whole purpose of education is to turn mirrors into windows.” Sydney Harris
B A S I C S

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I N F O R M A T I O N F O R E D U C A T O R S

Professionals interacting with young children have the critical task of providing rich information and experiences. Such experiences build skills and understanding in the context of everyday routines and within intentionally-designed play opportunities that capture children’s interests and curiosity.

SEVEN ASSESSMENT SKILLS EDUCATORS NEED
Adapted from SERVE Center, University of North Carolina at Greensboro, 2004

1. DEFINE LEARNING GOALS
   Define learning goals ahead of time. Learning goals are the basis of developing or choosing ways to assess children’s learning and the effectiveness of instruction.

2. USE A VARIETY OF ASSESSMENT TYPES
   Use a variety of ongoing assessment types to gather different levels of evidence of children’s learning.

3. ANALYZE THE DATA AND ACT ON IT
   How to analyze achievement data (both quantitative and qualitative) and make good inferences (e.g., decisions and plans) from the data gathered.

4. PROVIDE FEEDBACK
   How to provide appropriate feedback to children (and families).

5. ADAPT YOUR INSTRUCTIONS AND BEST PRACTICES
   How to make appropriate instructional modifications and decisions to help children improve.

6. ENGAGE AND CAPTIVATE CHILDREN’S INVOLVEMENT
   How to involve children in the assessment process (e.g., self and peer assessment) and effectively communicate results.

7. ENHANCE OPTIMUM LEARNING ENVIRONMENT
   And, most important, how to engineer an effective classroom assessment environment that boosts children’s motivation to learn.
Curriculum, instruction, and assessment work together to provide the best learning experiences for children. Educators should assess children's progress on the curriculum content presented and adapt the instruction based on the assessment results.

Curriculum and assessment work together to provide rich opportunities for learning and should be aligned with Pennsylvania Learning Standards for Early Childhood.

Assessment is the process of gathering information about children from several forms of evidence, then organizing and interpreting that information, with evidence being an outward sign or indication of the child's development or learning. Instructional practices must embed the domains of development—cognitive, language, physical, and social-emotional—with approaches to learning that enable children to explore, understand, and reach beyond the "here and now" to challenge themselves, experiment, and transform information into meaningful content and skills. Based upon assessment results, adapt your practices—Content (What), Materials (How)—and make them individualized.

Pennsylvania Learning Standards

Curriculum

Optimum Development of a Child

Instruction

Assessments

for Early Childhood

EDUCATOR TIPS

- Ensure appropriateness of curriculum, assessments, and instruction for special populations.
- Engage in intentional evidence collection for every child on a continual basis.
- Summarize ongoing observation data for every child at least twice times (preferably three times) per year to document the child's progress over time.
- Implement chosen assessment and curricula-based manual (with fidelity*).
- Use assessment results to adapt both content and pedagogy** (how instruction is provided).
- Access specific professional development related to linking standards.***
- Review program requirements to ensure compliance with ongoing assessment and outcomes reporting.

* Fidelity is defined as adherence and devotion to following the guidelines and rules of your assessment and curriculum manual.

** Pedagogy may be defined as the practice (or the art, the science, or the craft) of teaching. (Siraj-Blatchford, 2004) Pedagogy is the overarching concept, it refers broadly to the deliberate process of cultivating development within a given culture and society. From this point of view, pedagogy has three basic components: (1) curriculum, or the content of what is being taught; (2) methodology, or the way in which teaching is done; and (3) techniques for socializing children in the repertoire of cognitive and affective skills required for successful functioning in society that education is designed to promote. (Lager to learn, educating our preschoolers, National Resource Council, 2000)

*** Professional Development Core training on PD Registry: Integrating the Early Childhood Standards into Curriculum and Assessment – 6 hours
FOUR ASSESSMENT TYPES

SCREENINGS

WHAT • Screenings provide a quick snapshot of a child’s health and/or developmental status.

WHEN • Within 45 days of new enrollment.

WHY • To assess if there is a need for diagnostic assessment. Identifies potential difficulties that may interfere with expected growth, learning, or development that warrant further assessment, diagnosis, or evaluation, and that might necessitate adapted instruction, interventions, or special education services.

• DEVELOPMENTAL—
  (domains of cognition, fine and gross motor skills, social-emotional, and speech and language development)

• SOCIAL EMOTIONAL—
  – Emotions
  – Exploring environments
  – Forming relationships

• HEALTH—
  (Mental and physical)

DIAGNOSTIC ASSESSMENTS

WHAT • Diagnostic Assessment is a process that looks at areas of specific concern or looks at a broad range of development, as a result of screening data.

WHEN • After initial screening or when concerns are raised about the child’s development that will affect the child’s growth on learning and development.

WHY • To identify need for intervention and/or instructional strategies.

DIAGNOSTIC ASSESSMENTS

Standardized for a large number of children

Related to other children of the same age, gender, and ethnic origin

Results:
  Intervention, instructional strategies, IEP, therapy, etc.

FORMATIVE ASSESSMENTS

SUMMATIVE ASSESSMENTS

ASSESSMENT KNOWLEDGE IS POWER WHEN YOU TURN IT INTO ACTION AND CHANGE INSTRUCTIONAL PRACTICES

“If a child can’t learn the way we teach, maybe we should teach the way they learn.” Ignacio Estrada
FORMATIVE ASSESSMENTS

WHAT • Formative Assessment is used by educators and children during instruction to provide feedback to adjust ongoing teaching and learning to improve children’s achievement of intended instructional outcomes.

WHEN • Ongoing.

WHY • Collecting ongoing evidence for learning to inform instruction, while the process involves educators, adults, and children.

SUMMATIVE ASSESSMENTS

WHAT • Summative Assessment seeks to make an overall judgment of progress made.

WHEN • At the end of a defined period of instruction.

WHY • To create a summary of learning. Summative data essentially looks back to see how effective the instruction, a part of the curriculum, or an intervention was. Summative data can be used for accountability, which is often considered high-stakes.

Ongoing

Collecting evidence

Systematic process

Integrated into instruction and learning

To improve and adjust instruction

• Educators and children share learning goals
• Educators provide opportunities for children to monitor their ongoing progress
• Educators and children receiving frequent feedback

Occur at a designated time or transition, the end of a school level, grade, or course, or are administered at certain grades

Frequency often based upon specific program standards/regulations

Results are of great interest to families, educators, administration, press, public, and other stakeholders

High stakes depend on how decisions are made

Produce clear data on the children’s accomplishments at key points in his or her academic career

PURPOSES OF STATE OR LOCAL ACCOUNTABILITY

“A teacher is a compass that activates the magnets of curiosity, knowledge, and wisdom in the pupils.” Ever Garrison

WATCH ME GROW
The Department of Education does not make specific recommendations with regard to assessment tools; rather, the Department provides guidelines for decision-making that would best adhere to the Pennsylvania Learning Standards for Early Childhood (birth to age eight).

### Questions to Ask When Considering Assessments

1. What is the purpose for assessing?
2. What ages does the tool assess?
3. What is it going to cost?
4. Are there mandated requirements for certain programs or grants? (e.g., Pre-K Counts, etc.)
5. What type of assessment(s) is the tool?
6. Can the assessment be used with any curriculum?
7. Technical dimensions—what is official research on reliability, validity, and technical adequacy?
8. Technical dimensions—on what developmental domains is it based?
9. Technical dimensions—are they aligned with Pennsylvania Learning Standards for Early Childhood and/or Pennsylvania Core Standards?
10. Technical dimensions—is there sensitivity to children’s individual backgrounds (ethnic, racial, language, and functional status)?
11. What online tools/reports are available?
12. How is training offered?
13. What supports are offered?
The purpose of the child assessment and the audience(s) should be considered in determining what assessment is used and who administers it (collects the evidence). For example, if a funder wants to know whether their investment is improving child outcomes, then assessments might collect outcomes from a sample of children. By contrast, if educators want to screen children, plan instruction, or identify professional development needs, it is important that educators (with input from families) assess all children.

### RELIABILITY
Reliability refers to the accuracy and stability of assessment scores.
- Assessment developers ensure reliability by testing the consistency of measurements, gauged by any of several methods, including when the testing procedure is repeated on a population of individuals or groups (test-retest reliability), or is administered by different raters (inter-rater reliability).
- A good measure of reliability is a score between 1.0 (perfect) and 0.50 (good*).

### VALIDITY
Validity is an indication of how closely the assessment measures what it is intended to measure.
- An assessment has to be reliable to be valid. Assessment developers make logical hypotheses and analyze groups of test scores to see if the hypotheses hold. A screening instrument demonstrates validity if children who are identified by screening to have a problem also receive low scores on a comprehensive test of development.
- A good measure of validity is a score between 1.0 (perfect) and 0.50 (good).

### TECHNICAL ADEQUACY
Technical adequacy describes the degree of demonstrated reliability and validity of a test.
- Technical information is often included in the assessment guide.
- Technical adequacy is an important consideration when selecting assessment instruments for any purpose, although norm-referenced** assessments generally have more information on reliability and validity than do criterion-referenced*** instruments.

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* The measures used for reliability will create a score between 0 and 1. These numbers are referring to a ratio or fraction and are not to be confused with a test score. The value of a reliability estimate tells us the proportion of variability in the measure attributable to the true score. A reliability of .5 means that about half of the variance of the observed score is attributable to truth and half is attributable to error. And so on.
  a. Measures a child’s performance against a predetermined set of criteria, generally developmentally-sequenced or task-analyzed skills.
  b. Children’s response(s) is compared to a level of performance in an area of knowledge or skill, rather than to a group of children or normative group.

** Norm-referenced
  a. Compares a child’s score to the scores of a group of same-age peers (norm-group).
  b. Refers to standardized tests that are designed to compare and rank test-takers in relation to one another (norm-group)

*** Criterion-referenced
  a. Measures a child’s performance against a predetermined set of criteria, generally developmentally-sequenced or task-analyzed skills.
  b. Children’s response(s) is compared to a level of performance in an area of knowledge or skill, rather than to a group of children or normative group.
OUTCOMES

WHAT • Outcomes are the recorded results of a well-balanced review of children’s skill development, based on educators’ assessments. Educators use reliable and valid assessment instruments to guide their collection and documentation of children’s progress for reporting.

An outcome should not be just a piece of information—it is important knowledge that should bring families and educators into action.

With proper resources and informed leadership (on all levels: educators, administrators, families, policymakers, and instructional leaders, and on a state level), best practices can be implemented, and policy decisions can be made on every level to support healthy development, early learning, and school success for all young children.

ULTIMATE BENEFIT ➔ IMPROVE LEARNING ENVIRONMENTS TO INCREASE INVOLVEMENT
- Identify quality changes and enhancements to the learning environment

ULTIMATE GOAL ➔ IMPROVE CHILD OUTCOMES AND PREPARE CHILDREN FOR SCHOOL AND LIFE SUCCESS
- Provide program- and child-specific tools to drive instruction and quality improvements

ULTIMATE TRAINING AND SUPPORT ➔ TARGET PROFESSIONAL DEVELOPMENT AND BEST PRACTICES
- Target and identify educator performance and effectiveness

INFORMS CULTIVATES SUCCESS

TARGET PROFESSIONAL DEVELOPMENT AND BEST PRACTICES
- Target services at the community level
- Evaluate teaching strategies and educator-child interactions
- Target and continue professional development
- Address and plan for the strengths and needs of children
- Engage and inform stakeholders
- Guide instruction

ULTIMATE GOAL ➔ IMPROVE CHILD OUTCOMES AND PREPARE CHILDREN FOR SCHOOL AND LIFE SUCCESS
- Make informed instructional and programmatic decisions
- Track and identify child’s progress and learning gains
- Engage families in the child’s progress and process
- Engage and inform stakeholders

ULTIMATE BENEFIT ➔ IMPROVE LEARNING ENVIRONMENTS TO INCREASE INVOLVEMENT
- Identify children’s current knowledge, skills, abilities, and needs. Identify children’s culture and native language(s).
- Identify children who may benefit from additional supports, intervention, or services
- Determine children’s interests

KNOWLEDGE IS POWER WHEN YOU TURN IT INTO ACTION AND CHANGE INSTRUCTIONAL PRACTICES

“Education is the most powerful weapon that you can use to change a child’s life, impact a family, change the community, and change the world.” Anonymous
Assessment is often used as a synonym for testing. The field of early childhood education has historically used authentic informal assessments in the form of naturalistic observations and anecdotal records. Current recommendations from the field and professional literature indicate the need for assessment systems that use ongoing, multiple methods for gathering information.

**Assessment = Testing**

Curriculum-based observation is direct observation and recording of a child's performance in the local curriculum as a basis for gathering information. Note that conducting ongoing authentic assessment provides the richest information about the whole child.

**Curriculum-Based Assessments Only**

Assessment is NOT conducted to determine the child’s “readiness” for inclusion in an educational setting, and assessment is DEFINITELY NOT conducted to exclude the child from preschool or Kindergarten. It IS conducted to plan beneficial opportunities for each child, and to optimize their likelihood of success.

**Exclusion**

Serious misuse of testing with young children occurs when assessments intended for one purpose are used inappropriately for other purposes.

**Inappropriate Application**

High-stakes decisions about program or educator quality, effectiveness, or accountability (of either Kindergarten or preschool experiences) should NOT be made. This includes judging program quality, evaluating educator effectiveness, and funding decisions.

**High-Stake Decisions**

Assessments are NOT used to predict future academic achievement and life success. Children develop at different rates, have different life experiences, and have different opportunities to participate in high quality early learning experiences. An assessment, particularly a single test at one moment in time, is NOT a valid predictor of a child’s potential.

**Technical Adequacy**
High-quality, early childhood education is supported by assessments aligned with instructional goals and approaches. Assessment, however, does not refer simply to the tool being used; it refers to an interconnected system of decisions and activities. Selecting an assessment tool or tools is one of those decisions. The system requires supports and procedures to effectively and appropriately administer the assessment, as well as selecting a data management and analysis system that captures the results of the assessments and allows the data to be used appropriately.

**WHAT** • A coordinated and comprehensive system of multiple assessments—each of which is valid and reliable for its specified purpose and for the population with which it will be used—that organizes information about the process and context of young children's learning and development to help early childhood educators make informed instructional and programmatic decisions.

**HOW** • A comprehensive assessment system addresses a full range of knowledge and skills expected by standards. It provides different users at different levels in the system (district, school, program, and classroom) with the right kinds of data, at the right level of detail, to help with decision-making.

**WHEN** • A continuous system provides ongoing streams of information about children's learning throughout the year. Assessment data from a coherent, comprehensive, and continuous system help educators monitor children's learning by establishing a rich and productive foundation for understanding children's achievement.

Data-driven improvements can take place on different levels—classroom, program, school, and district levels.