Janice J. Beaty

Preschool Appropriate Practices



Maeyc NAEYC Early Childhood Program and Accreditation Criteria

The 10 program criteria define what the NAEYC believes every early childhood education program should be, based on research and professional experience. The NAEYC uses the standards and criteria to not only define elements of program quality, but also to recognize programs that demonstrate the capacity to sustain quality over time. Of the 10 criteria, 5 focus on children, and the other 5 consider teaching staff, partnerships, and administration.

NAEYC Ac	creditation Criteria	Chapters
	Standard 1: Relationships	
1.C.05	Teaching staff guide children who bully, isolate, or hurt other children to learn to follow the rules of the classroom.	4
1.D.02	Teachers provide children opportunities to develop the classroom community through participation in decision making about classroom rules, plans, and activities.	13
	Standard 2: Curriculum	
2.A.12	The curriculum guides teachers to plan for children's engagement in play (including dramatic play and blocks) that is integrated into classroom topics of study.	3
2.B.01.b	Children have varied opportunities to engage throughout the day with teaching staff who facilitate their social competence.	2
2.B.05	Children have varied opportunities to develop skills for entering into social groups, developing friendships, learning to help, and other prosocial behavior.	3
2.C.04.a	Children have varied opportunities and are provided equipment to engage in large-motor experiences that stimulate a variety of skills.	10
2.C.04.c	Children have varied opportunities and are provided equipment to engage in large-motor experiences that develop controlled movement (balance, strength, coordination).	10
2.C.04.d	Children have varied opportunities and are provided equipment to engage in large-motor experiences that enable children with varying abilities to have large-motor experiences similar to those of their peers.	10
2.C.04.e	Children have varied opportunities and are provided equipment to engage in large-motor experiences that range from familiar to new and challenging.	10
2.D.02	Children are provided opportunities to experience oral and written communication in a language their family uses or understands.	6
2.D.04.c	Children have varied opportunities to develop vocabulary through field trips.	3
2.E.03	Children have opportunities to become familiar with print. They are actively involved in making sense of print, and they have opportunities to become familiar with, recognize, and use print that is accessible throughout the classroom.	5
2.E.04.a	Children have varied opportunities to be read books in an engaging manner in group or individualized settings at least twice a day in full-day programs and at least once daily in half-day programs.	5
2.E.04.b	Children have varied opportunities to be read to regularly in individualized ways, including one-to-one or in small groups of two to six children.	5
2.E.05.a	Writing materials and activities are readily available in art, dramatic play, and other learning centers.	4, 7
.E.05.b	Various types of writing are supported, including scribbling, letter-like marks, and developmental spelling.	7
.E.05.d	Children are provided needed assistance in writing the words and messages they are trying to communicate.	7
2.E.05.e / 2.E.05.f	Children are given the support they need to write on their own, including access to the alphabet and to printed words about topics of current interest, both of which are made available at eye level or on laminated cards.	7
2.E.06	Children are regularly provided multiple and varied opportunities to develop phonological awareness.	6
2.E.06.a	Children are encouraged to play with the sounds of language, including syllables, word families, and phonemes, using rhymes, poems, songs, and finger plays.	6
.E.06.d	Children's self-initiated efforts to write letters that represent the sounds of words are supported.	7
2.F.02	Children are provided varied opportunities and materials to build an understanding of numbers, number names, and their relationship to object quantities and to symbols.	11
.F.03	Children are provided varied opportunities and materials to categorize by one or two attributes such as shape, size, and color.	11
2.F.05	Children are provided varied opportunities and materials that help them understand the concept of measurement by using standard and nonstandard units of measurement.	11
2.F.06	Children are provided varied opportunities and materials to understand basic concepts of geometry by, for example, naming and recognizing two- and three-dimensional shapes and recognizing how figures are composed of different shapes.	11

NAEYC A	creditation Criteria	Chapters
2.F.07	Children are provided varied opportunities to build an understanding of time in the context of their lives, schedules, and routines.	11
2.F.08	Children are provided varied opportunities and materials that help them recognize and name repeating patterns.	11
2.G.02.a	Children are provided varied opportunities and materials to learn key content and principles of science such as the difference between living and nonliving things (e.g., plants versus rocks) and life cycles of various organisms (e.g., plants, butterflies, humans).	12
2.G.02.b	Children are provided varied opportunities and materials to learn key content and principles of science such as earth and sky (e.g., seasons; weather; geologic features; light and shadow; sun, moon, and stars).	12
2.G.02.c	Children are provided varied opportunities and materials to learn key content and principles of science such as structure and property of matter (e.g., characteristics that include concepts such as hard and soft, floating and sinking) and behavior of materials (e.g., transformation of liquids and solids by dissolving or melting).	12
2.G.03	Children are provided varied opportunities and materials that encourage them to use the five senses to observe, explore, and experiment with scientific phenomena.	12
2.G.04	Children are provided varied opportunities to use simple tools to observe objects and scientific phenomena.	12
2.H.01	The use of passive media such as television, film, videotapes, and audiotapes is limited to developmentally appropriate programming.	6
2.H.03	Technology is used to extend learning within the classroom and to integrate and enrich the curriculum.	6
2.J.01	Children are provided varied opportunities to gain appreciation of art, music, drama, and dance in ways that reflect cultural diversity.	9
2.J.04	Children are provided varied opportunities to learn new concepts and vocabulary related to art, music, drama, and dance.	9
2.J.05	Children are provided varied opportunities to develop and widen their repertoire of skills that support artistic expression (e.g., cutting, gluing, and caring for tools).	8
2.J.06	Children are provided many and varied open-ended opportunities and materials to express themselves creatively through (a) music, (b) drama, (c) dance, and (d) two- and three-dimensional art.	3, 8, 9
2.J.07	Children have opportunities to respond to the art of other children and adults.	8
2.L.04	Children are provided opportunities and materials to explore social roles in the family and workplace through play.	4
	Standard 3: Teaching	
3.A.07	Teaching staff and children work together to arrange classroom materials in predictable ways so children know where to find things and where to put them away.	1
3.F.04	Teaching staff help children understand spoken language (particularly when children are learning a new language) by using pictures, familiar objects, body language, and physical cues.	5
3.G.04	Teaching staff help children enter into and sustain play.	4
Standard 4: Assessment of Child Progress		
4.D.07	Teachers talk and interact with individual children and encourage their use of language to inform assessment of children's strengths, interests, and needs.	2
4.D.08	Teachers observe and document children's work, play, behaviors, and interactions to assess progress. They use the information gathered to plan and modify the curriculum and their teaching.	2
	Standard 9: Physical Environment	
9.A.04	A variety of age- and developmentally appropriate materials and equipment are available indoors and outdoors for children throughout the day. This equipment includes (a) dramatic play equipment; (b) sensory materials such as sand, water, play dough, paint, and blocks; and (c) materials that support curriculum goals and objectives in literacy, math, science, social studies, and other content areas.	1
9.A.09.a	Program staff arrange the environment to be welcoming and accessible. A welcoming and accessible environment contains elements such as multicultural materials that promote appreciation for diversity while being respectful of the cultural traditions, values, and beliefs of families being served.	1
9.A.12	Indoor space is designed and arranged to (a) accommodate children individually, in small groups and in a large group; and (b) divide space into areas that are supplied with materials organized in a manner to support children's play and learning.	1
	Standard 10: Leadership and Management	
10.B.07	The program has a strategic planning process that outlines actions the program will take to (a) implement the program's vision and mission, (b) achieve outcomes desired for children, (c) maintain high-quality services to children and families, and (d) provide long-term resources to sustain the operation of the program.	13

Fifth Edition

Preschool Appropriate Practices

Environment, Curriculum, and Development

Janice J. Beaty

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Preschool Appropriate Practices: Environment, Curriculum, and Development, Fifth Edition Janice J. Beaty

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Image Researcher: Anjali Kambli, Lumina

Datamatics

Production Management and Composition:

MPS Limited

Art Director: Helen Bruno

Text Designer: Joe Devine, Red Hangar Design

Cover Designer: Irene Morris Design

Cover Image: FatCamera/GettyImages

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Library of Congress Control Number: 2017949427

Student Edition:

ISBN: 978-1-337-56621-6

Loose-leaf Edition:

ISBN: 978-1-337-56622-3

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Print of America Print Number: 01 Print Year: 2017

In memory of a special friend, colleague, and early childhood advocate **Mary Klein Maples**

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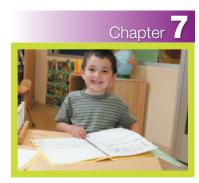
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Preface

Preschool Appropriate Practices: Environment, Curriculum, and Development, 5th edition, presents a unique approach to developing an early childhood curriculum—one in which the teacher is a "facilitator of learning" and the child is a "self-directed learner." Research has shown us that children below the age of 7 can create their own knowledge through hands-on interaction with materials, activities, and people in their environment. Such children, if they are to learn, must have an especially rich environment full of materials, activities, and people who relate well to their cultures, their ages, and their stages of development.

Preschool Appropriate Practices: Environment, Curriculum, and Development, 5th edition, describes such an environment in 13 chapters, 10 of which are learning centers focused on 10 important topics in the preschool children's lives: blocks, dramatic play, books and reading, listening, writing, art, music and dance, large-motor activities, manipulatives and math, and science. To entice children to begin their self-directed exploration, each chapter is brimming with fun activities to promote a child's physical, cognitive, language, social, emotional, and creative development. The preschool teacher will learn how to create such an environment where children can become happily self-directed and deeply involved in their own learning.

For preschool children, "involvement" means "play," and it is through play that young children learn. After the physical environment is arranged into learning centers, children ages 3 to 5 can explore them playfully on their own. As "self-directed learning environments," the centers will address the interests and needs of all children, including those with special needs and dual-language learners.

As "facilitators of learning" teachers will learn how to set up such learning centers, how to serve as behavior models in the centers, how to observe children's developmental levels, how best to support children in each center, and at the same time how to meet the *early learning criteria* now required of preschool programs. Teachers will also learn how to determine children's developmental levels of manipulation, mastery, and meaning by observing children's interactions with materials and with each other and how to record such information on a Child Interaction Form. The Large-Motor Checklist can also be used. Teachers will then learn how to interpret the data collected and make plans for individuals and the group.

New Features in the Fifth Edition

This fifth edition has undergone an extensive makeover to give it an exciting new look, many new photographs, and many other new features, including the following:

- Learning Objectives: Learning objectives are now provided at the beginning of each chapter and correlate with main headings within the chapter.
- Children's picture books: More than 300 are shown, most in boxes for easy referral, including 130 from 2010 and later. All of the books are integrated as leading to children's learning activities.
- Developmentally Appropriate Practice (DAP): This discussion has been updated to include *culturally and linguistically appropriate* additional elements to be aware of when making sure a practice is developmentally appropriate.



- NAEYC Accreditation Criteria: National Association for the Education of Young Children (NAEYC) accreditation criteria are shown in the margin in appropriate locations throughout the chapters with discussion questions on how to meet each criterion.
- Dual-language learners: New and more extensive information is provided on how to help children learn English as a second language along with their home language.
- New topics: New topics include use of high-tech tools; block builders as architects and engineers; online books; wordless picture books; band music; stilt walking; and outer space.

Other changes specific to each chapter are listed here:

Chapter 1: The Self-Directed Learning Environment

- Expanded discussion of early learning through play, including programs such as the Bank Street Approach
- A discussion of the NAEYC Accreditation Criteria
- Expanded discussion of importance of child development and developmentally appropriate practice
- How to create a self-directed environment, making materials accessible in learning centers
- Expanded discussion of building trust in self, peers, teacher, and environment

Chapter 2: The Teacher's Role

- Expanded discussion of difference between teacher's role in a self-directed environment and in a traditional classroom
- Discussion of powerful interactions between teachers and children based on Dombro, Jablon, and Stetson's studies (2011), along with supportive questions and statements
- Expanded discussion of how to determine children's developmental levels in order to observe their interactions with learning materials and activities
- Discussion of advantages and disadvantages of new technology for observing and recording
- Discussion of how to respond and when to interact in children's activities
- Expanded discussion of how to serve as a behavior model for children

Chapter 3: Block Center

- Blocks as the text of the early childhood curriculum
- Children as block-building architects solving block challenges
- The Block Center as an engineer-based emporium where children design towers and bridges with ideas from children's picture books
- Teacher's role in Block Center after field trips
- Books for pretending about buildings to inspire building
- Interacting with unsure children, dual-language learners, and disruptive children

Chapter 4: Dramatic Play Center

- List of children's learnings from dramatic play
- Digital devices for use in dramatic play (children's cameras and recorders)

- Discussion of fantasy role play with books to inspire children's latest fantasy interest: monsters
- Integrating dramatic play into other centers using new driving books
- Expanded discussion of dramatic superhero play
- Including children with disabilities using superhero bug books

Chapter 5: Book/Reading Center

- Research to support reading aloud and why it is important
- Discussion of putting books in every learning center and reading twice a day
- Discussion of picture books and how latest pictures attract children
- Discussion of print-salient picture books
- Importance of home language for preschool children and new list of bilingual books
- New books to promote friendship
- Book characters as role models and a new list of books about emotions

Chapter 6: Listening Center

- Discussion of listening with intent
- Soundproofing the room
- Use of high-tech devices and using audio book CDs
- Story reenactment, story drama, and sound word games
- How to choose and use online books, such as Wanderful Books
- Advantages of online books
- Helping dual-language learners use online books
- Teacher's role with online book programs

Chapter 7: Writing Center

- Making marks on paper has meaning for youngest children
- Need to honor scribbling as foundation for writing
- Desktop computer and its use
- Turn taking and interactive writing
- Story writing
- Wordless picture books

Chapter 8: Art Center

- Art as visible thinking
- New hand printing book
- Expanded discussion of mixing colors
- Crayons as characters in children's books
- Discussion of Eric Carle as an artist
- Discussion of painting emotions and books promoting emotional art
- New book on collecting colors

Chapter 9: Music/Dance Center

- Using books to promote singing and dancing
- Using mirrors to promote dancing
- Making pounding music with hands
- Books to promote children's band music
- New song picture books
- New night music books

Chapter 10: Large-Motor Center

- A discussion about including children with physical impairments in large-motor activities
- Classroom walking activities, including stilt walking
- A discussion of pushing large trucks (pretend bikes) around the Riding Ring
- New books to promote pretend classroom driving: tractor, construction vehicles, and van
- Building a new road in classroom
- Preschool trampoline and a jumping contest
- Expanded discussion on stretching, including doing yoga stretches
- New books on baseball and football promoting use of Throwing Booth

Chapter 11: Manipulative/Math Center

- Expanded discussion of sorting by shape
- New books like Round and City Shapes promoting pretend shape trips around the classroom
- Materials such as stacking rings to help children understand ordering
- Difference between rote counting, rational counting, and one-to-one correspondence
- Playing countdown games from children's counting books
- Bilingual Mexican folktale as a countdown book

Chapter 12: Science Center

- Expanded discussion of the teacher as an exploring behavior model
- Learning about day and night in Dramatic Play Center
- Exploring motion with cars and ramps in Block Center
- Experiencing scary sounds in big storms
- Learning about the scientific method in *Ada Twist*, *Scientist* and *Charlotte the Scientist Is Squished*
- Learning the scientific method for reducing a fear, such as being afraid of the dark
- Experiencing the dark of outer space as pretend astronauts
- Using a light table for "tracking satellites"

Chapter 13: Curriculum Planning

Expanded discussion of planning for individuals based on observations

The strength of each learning center chapter continues to be its description of the role of the teacher/facilitator in the child's self-directed curriculum. To set up activities that are developmentally appropriate for every child, the teacher learns to use a unique

observation tool, the Child Interaction Form. Finally, to plan an overall curriculum, the teaching staff learns the approach of using curriculum webs.

Text Features

Helpful student learning features in the fifth edition of *Preschool Appropriate Practices* include:

- Learning objectives: Learning objectives are provided at the beginning of each chapter and correlate with main headings within the chapter. The objectives highlight what students need to know to process and understand the information in the chapter. After completing the chapter, students should be able to demonstrate how they can use and apply their new knowledge and skills.
- Correlations to NAEYC Standards and Accreditation Criteria: Chapter content is linked throughout to the NAEYC Accreditation Criteria for excellent early childhood programs. A summary of the criteria covered appears at the beginning of the chapter, and specific criteria addressed are noted in the margins. Look for the NAEYC icon to quickly identify standards. The related standards are printed on the inside covers of this book.
- Action chants: Sample action chants relevant to the Learning Center are provided at the beginning of chapters that students can use in their classrooms.
 Accompanying sheet music appears in the appendix. Chants can be done with or without music.
- Marginal icons: This text includes several marginal icons to draw attention to content related to diversity, inclusion, and family.
- Children's picture books: Children's books are used in the text as lead-ins to children's learning activities, helping students see how picture books can be used in all learning centers to support multiple curricular areas.
- Ideas in the chapter: Short summaries appear at the end of each chapter to recap key concepts. The Ideas feature can be used by students to ensure chapter comprehension, and in-service teachers can use it to help implement the practical ideas found throughout the chapter.
- Try It Yourself: These activities can be used by preservice teachers to practice applying what they learned to a classroom activity. In-service teachers can implement these developmentally appropriate activities in their own classrooms.
- Children's Books list: These compilations of children's books are excellent resources for preservice and in-service teachers in selecting quality children's literature for use in the classroom.

Accompanying Teaching and Learning Resources

This fifth edition of *Preschool Appropriate Practices* is accompanied by an extensive package of instructor and student resources.

MindTap™: The Personal Learning Experience

MindTap for Beaty, *Preschool Appropriate Practices*, 5th edition, represents a new approach to teaching and learning. A highly personalized, fully customizable learning











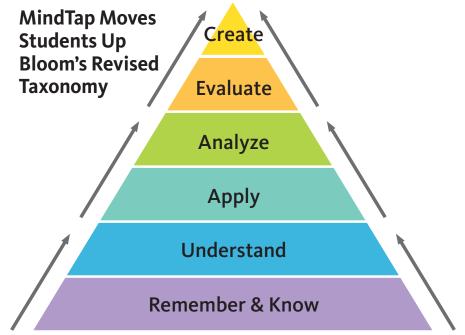
platform with an integrated eportfolio, MindTap helps students elevate thinking by guiding them to:

- Know, remember, and understand concepts critical to becoming a great teacher;
- Apply concepts, create curriculum and tools, and demonstrate performance and competency in key areas in the course, including national and state education standards;
- Prepare artifacts for the portfolio and eventual state licensure, to launch a successful teaching career; and
- Develop the habits to become a reflective practitioner.

As students move through each chapter's Learning Path, they engage in a scaffolded learning experience, designed to move them up Bloom's Taxonomy, from lower- to higher-order thinking skills. The Learning Path enables preservice students to develop these skills and gain confidence by:

- Engaging them with chapter topics and activating their prior knowledge by watching and answering questions about authentic videos of teachers teaching and children learning in real classrooms;
- Checking their comprehension and understanding through Did You Get It?
 assessments, with varied question types that are autograded for instant feedback;
- Applying concepts through mini-case scenarios—students analyze typical teaching and learning situations, and then create a reasoned response to the issue(s) presented in the scenario; and
- Reflecting about and justifying the choices they made within the teaching scenario problem.

MindTap helps instructors facilitate better outcomes by evaluating how future teachers plan and teach lessons in ways that make content clear and help diverse students learn, assessing the effectiveness of their teaching practice, and adjusting teaching as



Anderson, L. W., & Krathwohl, D. (Eds.). (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. New York: Longman.

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Preface

needed. MindTap enables instructors to facilitate better outcomes by making grades visible in real time through the Student Progress App so students and instructors always have access to current standings in the class.

MindTap for Beaty, *Preschool Appropriate Practices*, 5th edition, helps instructors easily set their course since it integrates into the existing learning management system and saves instructors time by allowing them to fully customize any aspect of the learning path. Instructors can change the order of the student learning activities, hide activities they don't want for the course, and—most importantly—create custom assessments and add any standards, outcomes, or content they do want (e.g., YouTube videos, Google docs). Learn more at www.cengage.com/mindtap.

Instructor's Manual

An online Instructor's Manual accompanies this book. It contains information to assist you in designing the course, including sample syllabi, discussion questions, teaching and learning activities, field experiences, learning objectives, recommended readings, and additional online resources.

Test Bank

For assessment support, the Test Bank includes true/false, multiple-choice, short-answer, and essay questions for each chapter.

PowerPoint Lecture Slides

These vibrant Microsoft PowerPoint lecture slides for each chapter assist you with your lecture by providing concept coverage using images, figures, and tables directly from the textbook.

Cognero

Cengage Learning Testing Powered by Cognero is a flexible online system that allows you to author, edit, and manage test-bank content from multiple Cengage Learning solutions; create multiple test versions in an instant; and deliver tests from your LMS, your classroom, or wherever you want.

Acknowledgments

My thanks go especially to my new content developer, Julia White, and product manager, Steven Scoble, as well as others at Cengage who offered many meaningful suggestions; to Donna Zeigler for writing the original music to my action chants; to Sue Bredekamp of the National Association for the Education of Young Children for her work in developing and promoting "developmentally appropriate practice" in classrooms for young children; to Elaine West, former Executive Director of Missouri Association for Community Action, for allowing me to use Head Start children's calendar art; and to Ann Gilchrist, former director of Central Missouri Foster Grandparent Program, for setting up children's classrooms for me to visit and for arranging for me to do workshops for the grandparents who worked with preschool children. Finally, I would like to thank the reviewers of this text: Laurel Anderson, Palomar College; Lavinia B. Anderson, Southern Wesleyan University; Linda Aulgur, Westminster College; Kerry L. Belknap Morris, River Valley Community College; Tracy Crump, Caldwell Community College and Technical Institute; Evia L. Davis, Langston University; Elizabeth M. Elliott, Florida Gulf Coast University; Colleen Fawcett, Palm Beach State College; April M. Grace, Madisonville Community College; Sonya Jordan-Tapper, Pearl River Community College; Bridget Murray, Henderson Community College; and Mandy White, Caldwell Community College and Technical Institute.

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Dr. Janice J. Beaty is a traveler. She has visited early childhood programs in Russia, Poland, and China, as well as visited and written about ECE programs in New York, South Carolina, Georgia, Florida, Missouri, New Mexico, and Arizona. Her doctoral dissertation at Cornell University was based on the original Child Development Associate (CDA) program. She has been a keynote speaker at conferences in New Orleans, Montreal, Chicago, Oshkosh, and San Antonio. Dr. Beaty has also authored more than 10 other early childhood teacher training textbooks, including *Skills for Preschool Teachers* (Pearson, 2017) and *Observing Development of the Young Child* (Pearson, 2014). She is a believer in child-initiated and self-directed learning—and hopes you are, too!



The Self-Directed Learning Environment

Learning Objectives

After reading this chapter, vou will be able to:

- **1-1** Understand expectations of students and teachers in the preschool classroom.
- **1-2** Discuss and appreciate what we know about teaching and learning.
- 1-3 Review the early childhood research base and identify its impact on the preschool classroom.
- **1-4** Describe developmentally appropriate practice and explain its importance.
- 1-5 Understand and apply early childhood program criteria as outlined by the NAEYC.
- **1-6** Explain the importance of and know how to create a self-directed learning environment.
- 1-7 Understand how to provide learning centers, including how their structure helps children understand the available activities and the importance of children making their own activity choices.
- **1-8** Help children trust themselves, the teacher, peers, and the environment.
- 1-9 Understand how to set the stage for learning.

Come In

(Action chant; Music in Appendix)

Walk up the sidewalk (march in place)

Knock at the door

(knock with hand)

Peek through the window

(hand over eves)

Gaze at the floor (look down)

Hand on the doorknob (turn with hand)

Should you begin? (stop all motion)

Open the door wide! (pull "door" open)

COME RIGHT IN! (jump forward)

NacyC Accreditation Criteria

3.A.07 Teaching staff and children work together to arrange classroom materials in predictable ways so children know where to find things and where to put them away.

9.A.04 A variety of age- and developmentally appropriate materials and equipment are available indoors and outdoors for children throughout the day. This equipment includes (a) dramatic play equipment; (b) sensory materials such as sand, water, play dough, paint, and blocks; and (c) materials that support curriculum goals and objectives in literacy, math, science, social studies, and other content areas.

9.A.09.a Program staff arrange the environment to be welcoming and accessible. A welcoming and accessible environment contains elements such as multicultural materials that promote appreciation for diversity while being respectful of the cultural traditions, values, and beliefs of families being served.

9.A.12 Indoor space is designed and arranged to

 (a) accommodate children individually, in small groups, and in a large group; and (b) divide space into areas that are supplied with materials organized in a manner to support children's play and learning.



Photo 1.1 We want children to come in with delight on their faces.







naevc Criterion 9.A.09.a ▶

Describe how you would meet this criterion:

Program staff arrange the environment to be welcoming and accessible. A welcoming and accessible environment contains elements such as multicultural materials that promote appreciation for diversity while being respectful of the cultural traditions, values, and beliefs of families being served.

1-1 Expectations of Teachers and Children

As teachers in the field of early childhood education, we are engaged in a remarkable endeavor: that of guiding young children through their very first group learning experience. We want desperately to succeed. We want children to come into our classrooms with delight on their faces and excitement in their eyes (Photo 1.1). We ourselves want to be excellent teachers who offer outstanding education to the 3-year-olds, 4-year-olds, and 5-year-olds who come into our programs. We want to be able to help solve all their problems and meet all their needs.

1-1a A New Experience

It is such a new experience for the children. They come into our classrooms with such high anticipation, with such great expectations. Will we like them? Will they be able to do what we expect of them? Will they like school?

It is such an important experience for us. Will we be able to provide the quality programs their parents expect of us and that we expect of ourselves? Will we be able to handle an entire class full of some 15 to 20 lively youngsters? Will we be able to reach and satisfy those children with special needs? Those who speak a different language?

1-1b Ideas

This textbook offers ideas that can make such a learning experience happen for teachers and children alike. It discusses the how's and why's of learning psychology in terms teachers can relate to. It offers ideas for converting the classroom into an active and attractive learning environment with freedom for teachers to explore their ideas and for children of every background, ethnicity, and ability to choose and accomplish the learning tasks necessary for both to succeed. It gives suggestions for providing appropriate activities and materials for the age level and learning stage level of every child in your class. We call it the Appropriate Practices Curriculum. The NAEYC Criterion 9.A.09.a speaks to this environment.

In her book *Pedagogy and Space* (2015), Zane emphasizes that this environment should structure space to reflect a welcoming and caring tone to all who enter (p. 15). As you read this textbook, try to put yourself in the place of the children in your classroom. What would make the environment welcoming and comfortable for them? What kinds of activities might they choose to be involved with? What kind of support would they appreciate receiving from you? Use the answers to these questions as guidelines for your work with young children. They will appreciate this concern on your part, and they will respond in the way you hoped they would.

1-2 What We Know about Teaching and Learning

Research has shown us that the more direct involvement young children have with learning activities, the more effectively they learn. The early studies of Swiss psychologist Jean Piaget, the Russian psychologist Lev Vygotsky, and the cognitive psychologists who followed them all point to the fact that young children learn best when they are actively involved in playful sensory exploration of materials and activities.

Photo 1.2 The teacher must observe how children interact with materials.



Teachers of young children agree. Whenever they set up their classrooms so that the children can become directly involved on their own with materials, all kinds of exciting interactions take place. So intensely do young children interact with their favorite materials and activities, in fact, that it is difficult to pull them away.

1-2a Teaching in an Early Childhood Classroom

You may well agree with this observation, but you may also wonder: "Is this really teaching? If I set up the classroom environment so that the children get deeply involved in the activities on their own, then what am I supposed to do? Isn't a teacher supposed to teach?"

"Yes, of course," is the answer. But *teaching* in an early childhood classroom is a very special skill, performed for a very special audience. The teacher in an early childhood classroom is a guide or facilitator of learning. This means the teacher sets up the classroom so that the children can teach themselves. Children below age 7 create their own knowledge by direct hands-on interaction with the materials, activities, and people in their environment. Thus, such children, if they are to learn, must have an especially rich environment full of materials, activities, and people who relate well to children's cultures, as well as their ages and stages of development.

Then the teacher must observe how individuals interact with the materials: what they do with them, how they use or misuse them, which materials are the favorites, which are ignored, and how she or he can best help and support the children in their learning (Photo 1.2). The teacher becomes a side-by-side facilitator of learning rather than a sage-on-the-stage in front of the class.

1-3 Early Childhood Research Base

Piaget's studies (1962) concerning how children acquire knowledge led him to differentiate three distinct kinds of knowledge:

- 1. *Physical knowledge* (external reality as observed and experienced in a sensorimotor way by children)
- 2. Logical–mathematical knowledge (mental constructs of relationships such as classifying by size or shape that occurs in the child's brain)
- 3. *Social–conventional knowledge* (agreed-upon conventions of society, such as the names given to numerals, alphabet letters, and so forth) (Kamii, 1990)

Children acquire all three types of knowledge first by interacting physically with the objects and people in their environment and then by mentally processing this knowledge. At the same time, they test new information against their previous knowledge, resulting in new or revised mental constructs. All young children everywhere go through this natural process of constructing knowledge during their early cognitive development.

The research of Russian psychologist Lev Vygotsky (1978) adds important details to this view of the child's acquisition of knowledge. He distinguishes children's *spontaneous concepts* acquired through direct experience from their *scientific or school-learned concepts* acquired in the social context of school.

Instruction by adults can be helpful to children, he tells us, but it is contingent upon the children's own development of skills in "a zone of proximal development." This "zone" represents the distance between what children can do by themselves and what they can do with assistance (Berk & Winsler, 1995, p. 5).

1-3a Early Learning Through Play

Children acquire this first knowledge through play. Early childhood specialists agree that play is the young child's chief method of thinking through things and solving problems. You might even say that play is a child's work. In other words, child's play is not principally for their recreation, as it is for adults, but for their learning.

From these developmental theories, cognitive psychologist Jerome Bruner went on to construct a learning theory (Bruner, 1966). His research with infants and young children demonstrated the importance not only of early learning, but also of a caregiver to provide "a social scaffold for the acquisition of skills." A caregiver (i.e., teacher) is necessary to help the child participate and respond in games and activities.

Ingredients for Today's Successful Early Childhood Programs

- 1. Children constructing their own knowledge
- 2. An environment conducive to children's exploratory play
- 3. An enabler (teacher) to help children acquire skills through their play

This textbook bases its approach on the findings of these cognitive theorists, as well as on those of other important researchers and early practitioners in the field. Maria Montessori from Italy at the turn of the century was one of the first early childhood advocates to set up an environment using child-size furnishings and beautiful materials. If the environment was "beautiful, safe, and orderly" then the children would feel free enough to conduct their own experiences (Bullard, 2017, p. 11).

Here in America practitioners such as Patty Hill Smith in the early years of the century fostered an environment where children played freely with large wooden building blocks. Her ideas were carried on by Carolyn Pratt, who designed unit blocks, and later by Lucy Sprague Mitchell and Harriet Johnson, who started the Bank Street Approach (Gestwicki, 2017, p. 109). More recently, Harriet Cuffaro at Bank Street continued the tradition of children's building with unit blocks in an open environment to support their learning in every area of the curriculum.

1-4 Developmentally Appropriate Practice (DAP)

In 1986, the National Association for the Education of Young Children (NAEYC), early childhood's principal professional organization, issued a position statement on developmentally appropriate practice in early childhood programs based on a two-year study

of relevant research in the field (NAEYC, 1986). The statement provides a framework for the appropriateness of curriculum, learning activities, adult–child interaction, home–program relations, and the evaluation of child development. It includes guidelines concerning the appropriateness or inappropriateness of curriculum goals; teaching strategies; guidance; language; and cognitive, physical, and aesthetic development for children from birth through age 8.

The rationale for developing a national position statement like this stems from the trend in recent years toward increased formal instruction of academic skills in early childhood programs. Worksheets and workbooks were beginning to appear first in kindergartens, then in preschools. Teacher-directed activities were beginning to replace children's free play in many programs.

Someone with authority and supportive research needed to take a stand against these inappropriate practices. The NAEYC stepped forward. Its two-year study concluded that the trend toward formal academic instruction was based on misconceptions about early learning (Bredekamp, 1986, p. 4).

Children at preschool age had not developed physically and cognitively enough to benefit from formal academic instruction. They learned through play. Even today many educators fail to understand the essential role of play in young children's development and learning. For young children play is a spontaneous, open-ended, multisensory, process-oriented activity. As children develop, so does their play, from being functional, to symbolic, and finally to games with rules, depending on their stage of development (Gestwicki, 2017, pp. 35–38).

1-4a Importance of Child Development

In its position statement on developmentally appropriate practice, the NAEYC makes it clear that a major determinant of program quality is the extent to which knowledge of child development is applied in program practice—the degree to which the program is developmentally appropriate (Bredekamp & Copple, 1997). Continued revisions of this position emphasize that to be developmentally appropriate, an early childhood program should be:

- 1. Age appropriate, that is, it should show awareness and understanding of the predictable sequences of growth and change in the children it serves
- 2. *Individually appropriate*, that is, it should be aware of and respond to individual differences in young children, matching children's developing abilities with appropriate materials and activities, while challenging them to develop further
- 3. *Culturally appropriate*, that is, it should recognize the influence of group cultural differences on a child's development

Copple and Bredekamp (2009) also tell us that developmentally appropriate practice requires teachers get to know their children well—and then to apply this knowledge in helping children reach goals that are both challenging and achievable. They list 12 important "Principles of Child Development and Learning" in their *Developmentally Appropriate Practice in Early Childhood Programs* (see Figure 1.1).

The following chapters present ideas and activities that follow these principles. To be successful in carrying out appropriate practices with children, teachers should begin by becoming familiar with Figure 1.1.

When teachers set up classrooms so that children can become involved on their own, teachers are free to work with individual children, observing them and taking note of those who need special help and support. They can then provide this help to individuals or small groups. That is the appropriate practice for preschool teachers.

When young children are given a free choice of activities to pursue on their own, they become deeply and happily involved in their learning. Although they will sit still

Figure 1.1 Principles of Child Development and Learning

- All the domains of development and learning (physical, social and emotional, and cognitive) are important, and they are closely interrelated.
- Many aspects of children's learning and development follow welldocumented sequences, with later abilities building on earlier ones.
- 3. Development and learning proceed at varying rates from child to child and in uneven rates in different areas for individuals.
- 4. Development and learning result from a dynamic interaction of biological maturation and experience.
- 5. Early experiences have profound effects, and optimal periods exist for certain types of development and learning to occur.
- 6. Developments proceed toward greater complexity, self-regulation, and symbolic representational capacities.
- 7. Children develop best when they have secure, consistent relationships with responsive adults and positive relationships with peers.
- 8. Development and learning are influenced by multiple social and cultural contexts.
- 9. Children learn in a variety of ways; a wide range of teaching strategies are effective in supporting all these kinds of learning.
- 10. Play is an important vehicle for developing self-regulation and promoting language, cognition, and social competence.
- 11. Development and learning advance when children are challenged to achieve at a level just beyond their current mastery.
- 12. Children's experiences shape their motivation and approaches to learning, such as persistence, initiative, and flexibility.

Adapted from Copple and Bredekamp, 2009, pp. 10-15.

and listen when the teacher talks to the entire class, preschool children do not develop cognitively, physically, socially, or emotionally in this manner. To grow in understanding the world around them and their part in it, these children need hands-on interaction with materials and equipment on their own as individuals or in small groups. That is the appropriate practice for preschool children.

Figure 1.2 NAEYC Early Childhood Program Standards and Accreditation Criteria

- 1. Relationships
- 2. Curriculum
- 3. Teaching
- 4. Assessment of child progress
- 5. Health
- 6. Teachers
- 7. Families
- 8. Community relationships
- 9. Physical environment
- 10. Leadership and management

1-5 Early Childhood Program Standards and Criteria

As preschool education has become valued across the nation, learning standards for preschoolers have been developed in most states, following the trend of standards for kindergarten through 12th grade. If they are used carefully, standards and criteria can become helpful tools to identify common expectations in many and diverse early childhood programs (Gronlud & James, 2008). They should not replace developmentally appropriate practice, but be viewed in conjunction with the Principles of Child Development and Learning (see Figure 1.1).

The NAEYC has developed its own program criteria to ensure high-quality early childhood education. Its extensive listing of criteria is available on the NAEYC website or in the booklet NAEYC Early Childhood Program Standards and Accreditation Criteria. The criteria cover the areas in Figure 1.2.

Photo 1.3 We must arrange this environment carefully.



Criterion 9.A.04

Describe how you would meet this criterion:

A variety of age- and developmentally appropriate materials and equipment are available indoors and outdoors for children throughout the day. This equipment includes:
(a) dramatic play equipment;
(b) sensory materials such as sand, water, play dough, paint, and blocks; and (c) materials that support curriculum goals and objectives in literacy, math, science, social studies, and other content areas.

Taeyc Criterion 9.A.12 ▶

Describe how you would meet this criterion:

Indoor space is designed and arranged to (a) accommodate children individually, in small groups, and in a large group; and (b) divide space into areas that are supplied with materials organized in a manner to support children's play and learning.

This text uses a sampling of appropriate criteria in margins throughout the chapters, asking readers to consider how they would meet the criteria listed. For example, here is the NAEYC Criterion 9.A.04 for the physical environment.

1-6 Creating a Self-Directed Learning Environment

To provide a curriculum that addresses the needs of individual youngsters in this appropriate manner, we can create a self-directed learning environment within our program. That is, we can provide, assemble, and arrange a physical classroom environment that allows children to:

- 1. Perceive what activities are available
- 2. Make their own choices of activities to pursue
- 3. Get deeply involved in their own learning

It is the learning environment itself that can be the foundation of the curriculum in a well-planned preschool classroom. The choice and arrangement of the equipment and materials set the stage for whatever is to happen. Wise teachers who understand how young children learn arrange the environment so that the children can direct their energies into the learning centers of greatest interest to them. Then teachers let the learning centers do the teaching through the children's playful exploration of materials and activities provided.

We must arrange this environment carefully so that individual children can use it on their own without too much direction on our part (Photo 1.3). We must ensure that it contains materials and activities developmentally appropriate for the wide range of individual children's interests and abilities. And we must make sure that although each learning center stands on its own, each one is also integrated in an appropriate manner into the total classroom curriculum. **Ideas** that have worked for others are **bolded** in the text and listed at the end of each chapter.

1-7 Providing Learning Centers

Dividing the classroom into specific areas known as "learning centers" is the most efficient and effective way to arrange a classroom. When set up appropriately, the centers speak to the children with materials and activities that let them know the purpose for each center and how they can go about using it as implied by the NAEYC Criterion 9.A.12.

Figure 1.3 Learning Centers in an Appropriate Practices Classroom

- Block Center
- Dramatic Play Center
- Book/Reading Center
- Language Center
- Writing Center
- Art Center
- Music/Dance Center
- Large-Motor Center
- Manipulative/Math Center
- Science Center

Teachers who have worked in classrooms with and without such centers tell us that learning centers provide children with opportunities to explore, experiment, and construct their own knowledge (Bottini & Grossman, 2005, p. 277). Thus it is important that the classroom space encourage and not limit children's possibilities for their daily experiences. Fortunati (2016, p. 57) adds that children should not feel bewildered in an excessively large space that has no points of reference. They need to feel comfortable, be able to find their way around, and move independently. Learning centers offer that possibility. They also provide opportunities for children's movement, socialization, choice making, and problem solving.

Your first task, then, in this Appropriate Practices Curriculum is to set up such self-directed learning centers. How will you do it? First you must become aware of the curriculum areas your particular program supports. They are often described in terms of topics: language arts, social studies, science, mathematics, physical activities, art, and music.

Sometimes they are described in terms of child development aspects: social, emotional, physical, cognitive, language, and creative.

Next you must convert these curriculum or child development topics into the learning centers. That is, you must plan physical space for each of the curriculum topics your program includes. The classroom arrangement and all that happens within it make up the curriculum in an early childhood program. Thus this text is arranged by chapters that have converted curriculum topics into the classroom learning centers, as listed in Figure 1.3.

In this text the six major aspects of child development are treated in each of the 10 learning center chapters. For example, Chapter 3 on block centers discusses social, emotional, physical, cognitive, language, and creative development for children through self-exploratory interaction with blocks (Photo 1.4).

Families also need to learn about your learning centers. Bullard (2017, p. 21) tells us that some families associate worksheets with learning. They can become aware of

how children in your program learn within learning centers through the notes and photos you send home. They can also learn more by participating in a family night, with families invited to participate with their children in each learning center.



Photo 1.4 You might decide to locate the Block Center next to the Dramatic Play Center.



1-7a Perceiving the Activities Available

To become self-directed in the classroom, young children need to be able to recognize what is available to them as the NAEYC Criterion 3.A.07 suggests. Your spacing of activities into definite centers through use of room dividers, portable screens, shelves, tables, curtains, and other means will help them understand where certain activities are to occur.

For instance, two shelves of blocks against a wall do not really define the Block Center. Pulling the two shelves away from the wall and placing them at right angles to the wall and to one another mark off the area in a much more definite manner. All of the learning centers in your classroom can be defined in similar ways. The learning center chapters to follow tell how.

It is just as important that the activities you provide are accessible to everyone. Brillante and Mankiw (2015, p. 15) talk about truly accessible curricula promoting active participation of all children, regardless of ability and language. Such an environment reflects the idea that all children are valued. Their differing abilities or modes of learning are understood, respected, and provided for in this Appropriate Practices Curriculum.

maeyc Criterion 3.A.07 ▶

Describe how you would meet this standard:

Teaching staff and children work together to arrange classroom materials in predictable ways so children know where to find things and where to put them away.



1-7b Learning Center Labels, Maps, and Schedules

Children can recognize what is available through picture and sign labels. Colorful cutouts of each of your curriculum centers can be mounted at children's eye level on the wall or room divider of the center. Use construction paper of various colors to make your labels attractive. One method for making learning center labels is to trace objects from the area onto colored paper; cut out the objects and mount them on a large white backing paper with words designating the area printed at the top.

For example, trace unit blocks of various types (half-unit, ramp, arch, cylinder) on papers of different colors for each block. Then cut them out and paste them on the Block Center sign like a collage of blocks. Letters indicating Block Center can be cut out of colored construction paper or can be printed with colored felt-tip markers.

Another method is to use a logo for each center. An orange arch can represent Block Center, a blue disk can represent Language Center, purple puzzle pieces can represent Manipulative/Math Center, and so on. Or you might want to color-code each area by making the sign itself a certain color. Use both written and picture symbols for your signs because children need to know how we express our names for things in words as well as in pictures.

It is important that you **print the center name in two languages** if a second language is spoken. Dual-language learners come to realize that you mean they are welcome in the center, not just English speakers. Dual-language labels also help create an understanding about the function of print and how print conveys meaning (Salinas-Gonzalez, Arreguin-Anderson, & Alanís, 2015, p. 25).

You can invent your own learning center signs. For instance, **take photos of each learning center and mount them on signs**. Look in your professional library for illustrated books showing each of the learning centers. Scan a photocopy of the illustration and enlarge it for a sign. Or do the same with children's books showing pictures of a preschool's learning centers.

Labels can be fun and funny. Get children involved to help you make them. They might make a cone puppet for each center with different colored paper for each (see Chapter 8). The a balloon or dangle ribbons from each label. If the labels attract enough attention, think what the activities within each center might be! Who would not want to get involved with block-building activities in a center whose label shows a tall tower falling down?

The time you spend preparing the environment for the children to use is well worth your effort. Some of the most stimulating and significant hours you and your coworkers will occupy can be those spent preparing the environment so that children will want to use it on their own. In making the classroom environment inviting for all children, you will also make it inviting to work in for yourself.

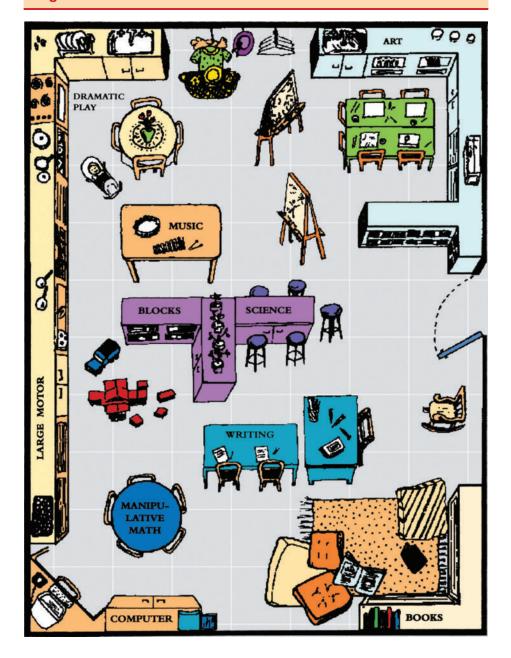
Once the centers are labeled, you can **make a large illustrated floor plan of the classroom to be mounted near the door** so that children and visitors can identify the various centers (see Figure 1.4). Be sure to mount it at the children's eye level.

Children are intrigued with maps. This is a map of their classroom, and they will need to learn how to read it. Introduce it to individuals and small groups at first, explaining what it is and how you will be using it. The small colored cut-outs of learning center signs pasted onto this floor plan help children match the center on the map with the center in the room having a similar sign. However you label your learning centers, use a similar label on your floor plan so that children can more easily identify the centers.

This floor plan or map is a symbol for the children: it represents or symbolizes the classroom. The children will enjoy learning to "read" this illustrated symbol of their room. They will feel proud to be able to point out to parents or visitors the various learning centers represented on it. It is only one of the many symbols they will learn about in a classroom following the Appropriate Practices Curriculum.

Another type of symbolization for both children and visitors is the Daily Schedule of activities. This, too, can be **an illustrated schedule chart** with the learning centers

Figure 1.4 Floor Plan



shown as small cut-out signs of the center. Make this chart one that can easily be taken off the wall for discussion at morning circle time. The children can learn to "read" this chart, too. It will tell them what is happening in their classroom for the day. It is another means for making them aware of what is available for them to choose to do in their self-directed environment. Let them try to match the cut-out learning center symbols on the chart with the actual labels in the various centers.

An illustrated Daily Schedule should contain what is available for children to do during each of the time slots sequenced throughout the day. The chart can be divided into sections such as arrival, activities, snack, outdoors, lunch, nap, activities, and departure. Each section of the chart will show illustrations of the centers having special activities.

If your Daily Schedule is on a bulletin board, the cut-out signs for the centers can be changed or moved around from day to day. To make the schedule more meaningful for the children, let them be the ones to move the signs on the chart.

Once you begin to develop a schedule for the children to "read" daily, it will become a dynamic part of your classroom and not just a permanent list of activities tacked to the wall for your supervisor to check. Consistent structuring like this within a day helps children develop a sense of security.

1-7c Making Own Activity Choices and Becoming Deeply Involved

Why should children make their own choices of the activities in a classroom? Wouldn't it be simpler for the teacher to assign children to a center or to an activity? Probably. Most children would certainly accept the teacher's assignment. After all, 3-, 4-, and 5-year-olds are used to being told what to do by an adult. Why should this program be any different?

This program is different because it is based on current research and child development theory that says young children learn most effectively when they become deeply involved in their own learning. To become deeply involved means they must be interested in the activity. A teacher-assigned activity may or may not be of interest to an individual child.

A child's own choice is much more likely to interest him or her deeply. In addition, environments that support choices are crucial to a child's development of self-reliance. Children in such a child-centered classroom have higher expectations for their own success, are less dependent on adult permission and approval, and are more willing to try challenging academic tasks (Gestwicki, 2017, p. 18).

Children entering a preschool classroom for the first time may see a number of materials or activities that interest them. But in order for children to choose to become involved in any of them, they must first have developed a sense of trust in themselves, in the teacher, in the other children, and in the classroom itself. A new classroom, a large and lively group of peers, and new adults as teachers can be quite overpowering for 3-year-olds who have not been out of the family circle for long.

Photo 1.5 To learn selfconfidence, children need to succeed.



1-8 **Developing Trust**

It is important that children learn to trust themselves, their teacher, their peers, and the environment. Before children can feel at ease in the classroom they need to develop this allencompassing trust. They need to start with themselves.

1-8a Trust in Self

Such children need to learn, first of all, that they can trust themselves in the classroom. That is, they need to learn self-confidence. Will they know what they are supposed to do in the classroom? Will they succeed at any of the activities? Will the teacher like them? Will the other children like them? Most of your children have these questions, doubts, and even fears, whether or not they express them.

To learn self-confidence young children need to succeed at the activities you provide (Photo 1.5). If you have been observing the developmental levels of every child, you will be providing a wide range of activities at a variety of difficulty levels. You will take into consideration children with special needs and youngsters from multicultural backgrounds.

Figure 1.5 Self-Regulating Methods

- Choice board
- Color-coded tickets
- Name tags
- Photo tags
- · Learning center necklaces
- Color-coded clothes pins
- Colored chips

A Self-Regulating Method

Your support in helping them choose activities that interest them will send the youngsters in the right direction. Your patience in waiting for children who are not yet ready to become involved in activities will give them a chance to develop the confidence necessary to make their own choices in this fascinating new environment. And your provision of a self-regulating method to help them choose activities on a rotating basis, or take turns with activities when the one they want is already occupied by others, will help them understand about others' needs (see Figure 1.5).

Young children are highly egocentric or self-centered: they look at everything in terms of themselves. Yet your classroom must serve more than a dozen other children. You could spend most of your time trying to ridual children's behavior when more than one wants to play with a certain

regulate individual children's behavior when more than one wants to play with a certain material or activity at the same time.

On the other hand, you could set up your classroom so that the children can regulate their own behavior. Children who learn to use self-regulating devices develop trust in their own abilities and confidence to explore the classroom on their own.

You can, for instance, **have tickets** for children that are color-coded for each learning center. There would be as many colored tickets as there are children allowed in the center. The tickets can be placed in library pockets on a choice board, enough for each learning center. There might be six orange tickets for the Block Center, for example, that children would get from a pocket at the entrance to the Block Center. When children are ready to leave the area, they would return the tickets to the choice board, or a child might want to trade an orange ticket with another child who has a blue ticket for the Math Center.

Name tags are also interesting for children to use. Laminated name tags with a piece of Velcro or a hole punched in one end can be hung on a hook or fastened on a Velcro tab at the entrance to a center. The number of hooks or fasteners in a center would help control the number of children using it. Children can get their name tags from a hook or fastener on the choice board and hang it in the learning center of their choice. Also a photo tag of each child can be made and laminated with a clear contact paper, to be used as a self-regulating device in the same manner.

Still another popular device is a **learning center necklace**: a yarn necklace with the learning center symbol or color code that can be worn by children while they are in a particular center. When they leave the center, they take off the necklace and return it to one of the hooks at the center entrance. Color-coded clothes pins, colored chips (from card games), or colored pieces (from board games) can also be selected by each child and used as a self-regulator to gain admittance into a center.

Your own ingenuity and that of the children will help you design other self-regulating devices that give children the freedom to make their own activity selections, and thus learn to trust themselves in this exciting new environment.

Figure 1.6 Trust in Teacher

- · Have children make own choices
- Support children's choices
- Accept children unconditionally
- Give help without intruding
- Offer alternatives when appropriate
- Offer help from another child
- Give children enough time to get involved in activity
- · Show delight in children's family

1-8b Trust in the Teacher

Children need to learn that they can trust the teacher to allow them to make their own choices and to support them in those choices (see Figure 1.6). They need to feel secure that the teacher will not try to make them change their minds or place them somewhere else. ("Maybe those puzzles are too hard for you, Carlos. Why don't you play with this table game?") Not only will the teacher support them in the choices they make, but the teacher will also support them in doing their chosen activities.

Suppose Carlos has made an activity choice that is too difficult for him. The sensitive teacher will keep an eye on his progress. If he seems to need help, the teacher will offer it without intruding. If he seems to need direction, the teacher will help him find the way himself, perhaps

Photo 1.6 The teacher needs to show delight when meeting a child's parent.

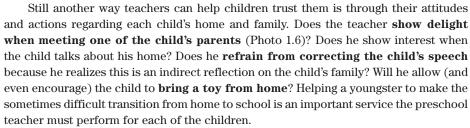


by offering alternatives. If Carlos seems to need peer support, the teacher may suggest that he and another child might work together on the activity. But if he prefers to work alone, the teacher will accept this preference as well.

Whatever Carlos does in the classroom, the teacher needs to **accept him unconditionally**. She will rejoice in his successes, help him to go on to something else when his chosen task is finished, and not turn against him even when he loses self-control. She is there to support him under all conditions and does not lose control herself when something he does annoys her. She helps him to get back on the right track without guilt or recriminations.

Another way teachers can help youngsters trust them is to **give them enough time to get involved** with the materials or activities of their choice. Too often teachers regulate classroom activity time to suit their own convenience or their particular expectations of children. What if children need more time with an activity in order to understand and learn from it? Real learning takes time.

Is it important that everyone in the class get a turn on a laptop computer every day, for instance, or would it be more meaningful for a few youngsters to spend an extended time with the laptop in order to construct their own knowledge on a new program? Children will learn to trust their teachers if they see that the teachers accept their self-regulation of time in the activities they have chosen to explore.



When children learn through experience that they can trust their teachers, they will feel free to make choices in the classroom and become deeply involved in their learning.

1-8c Trust in Peers

Just as important to novice preschoolers is being able to trust their own peers (see Figure 1.7). How will the other youngsters feel about them? They may wonder



Figure 1.7 Trust in Peers

- · Gain access to group play
- · Do parallel play next to others
- · Perform task for teacher
- Work with another child on computer
- Teacher shows support for each child

about this on the first days or first weeks in the classroom. What if the other children don't like them? What if they don't play with them? It is so difficult for two or threeyoung children to let a stranger into their midst for long. As it is, many of the youngest children may relate more easily to adults than to other children because their previous experience has principally been with adult caregivers.

What can be done? Again it is up to the teachers or other staff members to help the children become involved with peers if this is their choice. If a child is ready to build with others in the Block Center, to work

with a partner on the computer, or to join the dramatic play—but doesn't know how—then it is up to the teacher to give the child assistance.

Gaining access to ongoing play is especially difficult for some children of this age. Either they are too shy to intrude or too aggressive to be accepted by others. The sensitive teacher needs to help such a child find a middle ground (Beaty, 2017, p. 240).

Gaining Access to Ongoing Play

Perhaps shy Marlena can **do a task for the teacher with another child**. If these two youngsters are compatible, then perhaps they can work together with the blocks or the computer. If Marlena is still not ready for the overpowering presence of a group, the teacher may **help her set up a similar activity parallel to the group activity**. Parallel play like this has been found to be one of the most effective ways for preschoolers to gain entrance to ongoing group activities when they are ready (Anderson & Robinson, 2006). See Photo 1.7.

On the other hand, if children are too aggressive and pushy in trying to join a group, the teacher could help them gain access by asking them to perform a task for the teacher that will include playing with the group. (Can a child count the number of items on the "grocery store" shelf and tell the "cashier"?)

Children who display self-confidence and trust in the teacher are usually ready to join a group. All they may need is your brief assistance in gaining group access. When the others see that you support them, they may well extend their own support. Thus the children will develop trust in their peers that will eventually free them to make their own choices and become deeply involved in their own learning.

Photo 1.7 Children who trust the teacher are usually ready to join a group.



Figure 1.8 Trust in the Environment

- Understand choices available
- Explore the classroom freely
- Recognize familiar materials
- See exciting new materials
- Take an interest in the materials
- Make own choice
- Take time to get deeply involved

1-8d Trust in the Environment

Finally, if young children are to make choices and become deeply involved in the activities of the classroom, they must develop trust in the environment (see Figure 1.8).

Your setting up of the environment so that young children understand it and know how to use it is the first step, as already mentioned. Giving children the freedom to explore the materials on their own and the time to get deeply involved adds immeasurably to their developing of trust in the environment.

Once young children are aware of the choices available, they need to develop an interest in the materials. Are they familiar ones? Are they appropriate for the ages and developmental levels of the children? Teachers following the Appropriate Practices Curriculum will want some of the **materials** in their classroom environments to be **similar to those found in the homes** of the children.

Although many classroom activities will be new, different, and challenging to 3-, 4-, and 5-year-olds, some should also be familiar. Water play and making dough are activities the youngsters may have first encountered at home. Native American children from the Navajo culture may be familiar with weaving. Cooking with tortillas may be familiar to Hispanic children. Teachers can set up simple examples of such commonplace activities early in the year to put the children at ease and then add new twists in water play, yarn activities, or making dough as the year progresses.

The dramatic play family area with its kitchen furnishings is another familiar center that should help children build trust in the classroom environment. Later, other role-play areas can be added. Home-type furnishings such as mats or rugs, wall hangings, an easy chair or rocker, pictures, and pillows are all appropriate accessories because they help young children feel at home in school.

If the children's homes are ethnic or multicultural, your classroom furnishings can reflect this as well. A Mexican serape, a Native American blanket or rug, a Caribbean woven mat, a fishing net, or a paper lantern can also decorate the classroom walls if they seem appropriate. If children have physical disabilities, your materials may need special knobs or handholds.

Are the materials exciting ones? Put yourself in the place of a 3-, 4-, or 5-year-old child coming into a new classroom. What kinds of things would you want to play with? Your children will be attracted to colorful objects, to things that look the right size and shape, to materials that look as if you can do something "cool" with them (Photo 1.8).









Photo 1.8 The classroom is full of materials you can do something "cool" with.



Figure 1.9 Throwaway Items from Home

- Old magazines, catalogs
- Paper towel and tissue tubes
- Empty boxes: cereal boxes, packaged mix boxes, tissue boxes, match boxes, shoe boxes
- Coffee tins
- Seasoning jars and boxes
- Clear plastic bottles and jars with tops
- Plastic squeeze bottles
- Margarine containers with tops
- Styrofoam trays
- · Styrofoam packing "peanuts"
- Plastic bubble wrap
- Paper and plastic bags of different sizes

They love to be able to build their own huts and hideaways with card tables, cardboard packing cases, or large pieces of fabric attached to rods with clothespins or curtain rings (Hancock & Carter, 2016, p. 67).

Teachers with programs that have little money for new materials can make their own. **Homemade materials** are often the best ones anyway, because they are created for particular needs, and thus are used more frequently. Bring in empty food boxes of all sizes (cereal boxes, packaged mix boxes, boxes from sugar, salt, tea, or rice, for example). Let the children paint them and then cut out pictures from magazines to glue on them. What can the boxes be used for? Science collections? Decorations in the family area? Pretend treasure boxes? Let the children decide. Figure 1.9 lists some throwaway items children can bring in from home.

This Classroom Cares for You

If the learning environment is expected to help children develop trust, then one important message it can convey at the outset is: **this classroom cares for you** (see Figure 1.10). It has been arranged carefully for you to understand what is available and to choose by yourself the activities that interest you most. It will also provide materials to help you feel at home and wanted: stuffed animals for comfort while you look at a book in the Book Center, dolls of different skin colors to care for in the Dramatic Play Center, a container of little cars and figures of people and animals to select and play with during rest time. The pictures on the wall are at your eye level, and designs in the Block Center are on the baseboard for you to see when you are playing on the floor. An **overstuffed chair in the corner is a private place** for you to go to when you are feeling out-of-sorts.

Figure 1.10 A Caring Classroom

- Materials to choose by self
- Materials to help children feel at home
- · Stuffed animals for comfort
- Dolls with different skin colors
- Pictures at children's eye level
- A private place to relax
- · Toys and books for overnight lending
- Bridges from home to school

Photo 1.9 Children can begin their exciting learning adventure in this classroom.



Some classrooms go a step further and offer children a basket of **tiny toys to borrow** one at a time for overnight. Other programs have a second set of children's **picture books for overnight home lending**. This is yet another way to help children trust the environment by building bridges daily from home to school.

Children are encouraged to take home a school material, but then they are expected to return with it the next day. Such a practice not only creates great anticipation for the day ahead, but also helps the children realize that their home and school are working together for their benefit.

1-9 Setting the Stage for Learning

The self-directed learning environment is thus a dynamic setting that creates an opportunity for learning by offering appropriately arranged learning centers responsive to the individual child's interests and needs. With this setting in place, the children can begin their exciting learning adventure of creating their own knowledge through interaction with the people and materials in their environment (Photo 1.9). The teachers can begin observing children in order to provide appropriate activities and support for the youngsters' continued growth and development. And the Appropriate Practices Curriculum to follow will evolve naturally as children and teachers work together in an atmosphere of trust and caring.

IDEAS in Chapter 1

- 1. Arrange a classroom based on 10 centers.
 - a. List each learning center along with related learning centers.
 - b. Make a floor plan with centers.
- 2. Help children recognize what is available.
 - a. Provide picture and sign labels.
 - b. Use a logo.

- c. Print center names in two languages.
- d. Take photos for signs.
- e. Make an illustrated floor plan.
- f. Make an illustrated schedule chart.

3. Develop a child's self-regulating method.

- a. Use tickets.
- b. Use name tags.
- c. Use photo tags of each child.
- d. Use learning center necklaces.

4. Develop children's trust in the teacher.

- a. Accept children unconditionally.
- b. Give children enough time to get involved.
- c. Show delight in meeting parents.
- d. Refrain from correcting a child's speech.
- e. Have children bring a toy from home.

5. Develop children's trust in peers.

- a. Help children gain access to ongoing play.
- b. Ask a child to perform a task that will include other children.
- c. Help the child set up a similar activity parallel to a group activity.

6. Develop children's trust in the environment.

- a. Have materials similar to those in the home.
- b. Make own materials.
- c. Demonstrate that this classroom cares.
- d. Place overstuffed chair in corner for private space.
- e. Provide tiny toys to borrow.
- f. Provide picture books for home lending.

Try It Yourself

- Make a classroom floor plan for your program showing learning centers according to the ideas presented under Section 1-7a, "Perceiving the Activities Available."
- 2. Design picture and sign labels for all of your learning centers according to ideas presented under Section 1-7b, "Learning Center Labels, Maps, and Schedules."
- 3. Make an illustrated schedule chart showing the daily schedule of activities in your program according to ideas under Section 1-7b, "Learning Center Labels, Maps, and Schedules."
- Provide a self-regulating method to help children choose activities in your classroom according to ideas discussed under "A Self-Regulating Method." Have children use it.
- 5. Carry out one of the ideas under "This Classroom Cares for You" that has not already been done in your classroom.

References and Suggested Readings

Anderson, G. T., & Robinson, C. C. (2006). Rethinking the dynamics of young children's play. *Dimensions of Early Childhood*, 34(1), 11–16.

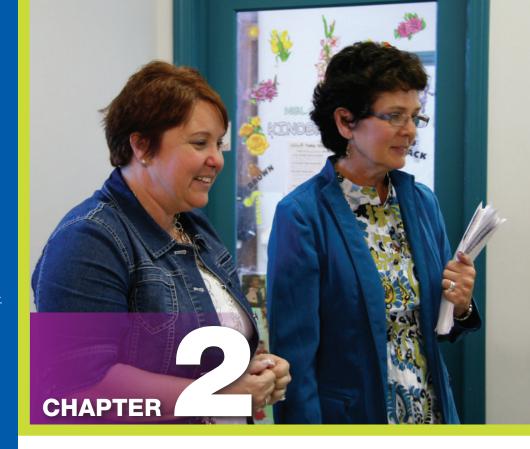
Beaty, J. J. (2017). Skills for preschool teachers (10th ed.). Columbus: Pearson.

- Berk, L. E., & Winsler, A. (1995). Scaffolding children's learning: Vygotsky and early childhood education. Washington, DC: NAEYC.
- Bottini, M., & Grossman, S. (2005). Center-based teaching and learning: The effects of learning centers on young children's growth and development. *Childhood Education*, 81(5), 274–277.
- Bredekamp, S. (Ed.). (1986). Developmentally appropriate practice in early childhood programs serving children from birth through age 8. Washington, DC: NAEYC.
- Bredekamp, S., & Copple, C. (Eds.). (1997). *Developmentally appropriate practice in early childhood programs* (Rev. ed.). Washington, DC: NAEYC.
- Brillante, P., & Mankiw, S. (2015). A sense of place: Human geography in the early childhood classroom. *Young Children*, 70(3), 16–23.
- Bruner, J. S. (1966). Toward a theory of instruction. Cambridge: Harvard University Press.
- Bullard, J. (2017). Creating environments for learning: Birth to age eight. Columbus: Pearson.
- Copple, C., & Bredekamp, S. (Eds.). (2009). Developmentally appropriate practice in early childhood programs: Serving children from birth through age 8 (3rd ed.). Washington, DC: NAEYC.
- Fortunati, A. (2016). Can design be sustainable? No, design must be sustainable. *Exchange*, 38(4), 56–61.
- Gestwicki, C. (2017). Developmentally appropriate practice: Curriculum and development in early education (6th ed.). Boston: Cengage Learning.
- Greenman, J. (2005). Caring spaces, learning places: Children's environments that work. Redmond: Exchange Press.
- Gronlud, G., & James, M. (2008). Early learning standards and staff development: Best practices in the face of change. St. Paul: Redleaf Press.
- Hancock, C. L., & Carter, D. R. (2016). Building environments that encourage positive behavior: The preschool behavior support self-assessment. Young Children, 71(1), 66-73.
- Kamii, C. (Ed.). (1990). Achievement testing in the early grades: The games grown-ups play. Washington, DC: National Association for the Education of Young Children.
- National Association for the Education of Young Children. (1986). NAEYC position statements on developmentally appropriate practice in early childhood programs. *Young Children*, 41(6), 3–29.
- National Association for the Education of Young Children. (2015). NAEYC early childhood program standards and accreditation criteria. Washington, DC: NAEYC.
- Piaget, J. (1962). Play, dreams, and imitation in childhood. New York: Norton.
- Salinas-Gonzalez, I., Arreguin-Anderson, M. G., & Alanís, I. (2015). Classroom labels that young children can use: Enhancing biliteracy development in a dual language classroom. *Dimensions of Early Childhood*, 43(1), 25–32.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Zane, L. M. (2015). Pedagogy and space: Design inspirations for early childhood classrooms. St. Paul: Redleaf Press.

Learning Objectives

After reading this chapter, you will be able to:

- **2-1** Understand the teacher's role in the self-directed learning environment.
- **2-2** Understand and determine children's developmental levels.
- **2-3** Use the 3-M method for observing interactions between children.
- 2-4 Describe manipulation, mastery, and meaning; determine their time frames; and carry out the teacher's tasks.
- **2-5** Observe children's interaction with materials.
- **2-6** Observe children's interactions with one another.
- 2-7 Listen to what children say.
- **2-8** Record observations on the Child Interaction Form.
- **2-9** Use new technology for observing and recording.
- **2-10** Respond to individual children as they work and play.
- **2-11** Reflect the child's actions with comments and questions.
- **2-12** Serve as a behavior model for the children in your classroom.



The Teacher's Role

naeyc Accreditation Criteria

2.B.01.b Children have varied opportunities to engage throughout the day with teaching staff who facilitate their social competence.

4.D.07 Teachers talk and interact with individual children and encourage their use of language to inform assessment of children's strengths, interests, and needs.

4.D.08 Teachers observe and document children's work, play, behaviors, and interactions to assess progress. They use the information gathered to plan and modify the curriculum and their teaching.

Teacher

(Action chant; Music in Appendix)

Good morning, teacher, (march in place throughout)

How do you do? (right hand wave)

Good morning, teacher,

I'm fine, too!

(left hand pat top of head)

Good afternoon, teacher,

I want to state:

(arms outstretched)

Good afternoon, teacher,

I feel GREAT!

(jump!)

2-1 The Teacher in the Self-Directed Learning Environment

As a teacher in a self-directed learning environment, your role is different from that of a teacher in a traditional classroom. You have already read in Chapter 1 how to set up such a learning environment so that children can make choices and become deeply involved in their own learning. You have read how to help children make independent choices of activities through their development of trust in themselves, the teacher, their peers, and the environment.

Now it is necessary to consider two of the most important tasks that a teacher in a self-directed learning environment must perform: (1) that of providing appropriate curriculum materials and activities based on curriculum goals and the children's developmental levels; and (2) that of supporting the children in their use of the materials. The teacher's principal chores in a program where the learning environment does the teaching include:

- · Providing appropriate learning materials
- Supporting the children in their use of the materials

How does the teacher do it? The chapters to follow discuss ideas and activities for each of the classroom learning centers. This chapter discusses:

- How teachers can determine the children's developmental stages so that the
 activities and materials provided will be appropriate for children at various
 levels of growth
 - How teachers can support the children in their interactions within the self-directed environment

Photo 2.1 Children develop in a well-defined chronological sequence.



2-2 Children's Developmental Levels

We recognize that young children grow and develop physically in a well-defined chronological sequence as they mature from year to year (Photo 2.1). We also realize that children simultaneously progress through certain stages of psychological, intellectual, social, language, and creative development. Growth within these ages and stages of development is not always even. Some children progress more rapidly than others, whereas others exhibit developmental lags. How can we help them?

One 3-year-old may be speaking in expanded sentences, whereas another may be talking baby talk. How can we meet the needs of both of these children in our classrooms? Another child may be 5 years old chronologically, but only 3 years old in her social development.

How will we know? And how will we know what to do about it? To provide appropriate materials and activities to promote the growth and learning of all the children in our classrooms, it is necessary to assess the developmental level of each child.

2-2a **Determining Children's Developmental Levels**

A great deal has been written about the developmental levels of children. Researchers have examined children's physical, cognitive, social, emotional, language, and creative development, among other things. They have come up with gross-motor rating

Figure 2.1 Appropriate Curriculum Materials

- · Appeal to child's interest and ability level
- Stimulate and prolong child's involvement
- · Challenge child physically and intellectually
- Not be too difficult or too easy

Figure 2.2 Appropriate Observation Tools

- Are simple and surefire for on-the-spot use
- Contain easy-to-see curriculum clues
- · Are an easy-to-use method
- Are sensible but not time consuming

scales, self-concept measures, personality projective techniques, perceptual-motor surveys, language inventories, learning profiles, observational checklists, and numerous other devices for assessing the level of the young child's development.

Many of these techniques are credible. Some are excellent, especially when used for their intended purpose by trained people. But few of them address the practical needs of the classroom teacher or the college student preparing to become a teacher.

Early childhood classroom personnel need to use appropriate tools to determine each child's developmental level in order to provide materials and activities that are suitable for the individual. To be appropriate, such materials and activities should appeal to the child's current interest and ability level, stimulate and prolong the child's involvement, challenge the

child physically and intellectually, and not be too difficult or too easy (see Figure 2.1). A big bill to fill, indeed!

Lists, scales, surveys, and inventories are fine when used by trained observers. But what most classroom staff members would prefer to use is a simple, surefire method for determining a child's level of development on the spot (see Figure 2.2). They are looking for some easy-to-see clues that can be translated immediately into curriculum ideas for that particular child. They would like some easy-to-use observational method that takes little time but makes a great deal of sense to busy child care workers.

2-3 The 3-M Method for Observing Interaction

Such a method is available. It is based on the research of Piaget and Vygotsky as noted in Chapter 1. It focuses on young children's **spontaneous exploratory interactions with materials and activities** in the early childhood classroom, in other words, on their play (Photo 2.2).

Infants, toddlers, and preschool youngsters seem to play around with things, not just for fun, but in order to figure out what things are and how they work. Most researchers

Photo 2.2 The 3-M method of observation focuses on children's spontaneous interactions with materials.



Photo 2.3 Take a close look at how children interact with materials.



Photo 2.4 Children construct knowledge through playful interaction with materials.



who have observed young children at play note how intently they pursue their chosen task. It is almost as if they are hard at work at a fascinating job. They are.

Montessori believed that children's free choice of activities in her prepared environment was work, the proper work of the child. Constructivists would call this

play, perhaps, but would also value child-chosen activities (Chattin-McNichols, 1992, p. 160).

Take a closer look at preschool children's work/play activities, and you will note that the process seems to occur in stages of interaction with new materials (Photo 2.3). First, children "fool around" with things: they manipulate them to find out how to use them or what they will do. Then they spontaneously begin using them the "proper" way over and over, almost as if they are practicing how to use them. Finally, most preschoolers seem to advance to a higher level of interaction where they apply some sort of meaning or creative use to the new materials (Photo 2.4).

2-3a Practical Observing Method

This text has adapted such information about children's cognitive development and translated it into an easy-to-apply observational scheme that will help students and teachers determine a child's developmental level in the activity area where the child is working or playing. We call it the 3-M method for observing child interaction with materials: manipulation, mastery, and meaning.

We find this method to be both practical and invaluable for determining children's levels of involvement with materials and activities. It is the key to planning and setting up the selfdirected learning environment so that children can choose and use the activities on their own. This gives teachers time to naeyc
Criterion 4.D.08

Describe how you would meet this criterion:

Teachers observe and document children's work, play, behaviors, and interactions to assess progress. They use the information gathered to plan and modify the curriculum and their teaching.

work with individuals or small groups. In addition, it addresses the developmental level of individual children, giving them an opportunity to interact with materials appropriate to their own ages and stages of development.

Most psychologists and child care specialists have come to agree with the premise that children do indeed construct their own knowledge as Piaget's studies have shown us, and that they proceed through sequential stages of development as they interact with their environment and as they mature. For young children, the principal means by which they construct this knowledge is through playful interaction with the objects, activities, and people in their environment.

The important aspect of these findings for the teacher is the *how*. *How* do children carry out this interaction with the objects, activities, and people in their environment which results in their acquisition of knowledge? That is the key to determining their level of development. We soon come to realize, in almost every instance, that children progress through certain sequential and observable interaction stages that are tied directly to their level of maturity and experience. If teachers can recognize these stages, they will know the children's levels of development and can use the information to plan the curriculum as the NAEYC Criterion 4.D.08 suggests.

2-4 Stages of Interaction

Children from birth to about age 7 progress through three distinct stages of playful interaction with the objects and activities they encounter in their environment (see Figure 2.3). Some psychologists speak in terms of *exploratory play*, *practice play*, or *symbolic play*. We have translated these terms into three words more meaningful for our particular use in observing children in the preschool classroom: *manipulation*, *mastery*, and *meaning*: the 3-Ms.

2-4a Manipulation: First Interaction Stage

Manipulation, the first of the interaction stages, is concerned with children's beginning explorations with unfamiliar objects or activities. Because the children do not know how these things work, they will try them out in a variety of ways until they learn what they do and how to do it. Young children, and even infants, begin by manipulating objects in a sensorimotor fashion. The infant picks up a rattle and puts it in his mouth. He drops it and kicks it with his feet. He picks it up again and puts it in his mouth. Then he bangs it on the crib. It makes an interesting sound, so he bangs it again. This is the manipulation stage of interaction with an object.

Cognitive psychologists sometimes call this manipulation *exploratory play*. These psychologists note that this first stage of physical play with materials is *manipulative play* (Frost, Wortham, & Reifel, 2005, p. 90). This stage will be known in this text as *manipulation*. All young children, regardless of their age, seem to go through this manipulation stage with new and unfamiliar materials. Watch and see what a young child in your program does with a new material.

Take block building with unit blocks, for instance. Children in the manipulation stage often fill up containers with blocks and then dump them out. They try handling blocks in all sorts of ways, but don't really build with them.

In dramatic play, children in the manipulation stage will use new implements and paraphernalia in various strange and sometimes funny ways until they figure out how the

Figure 2.3 Stages of Interaction

- 1. Manipulation: Child plays around with object.
- 2. Mastery: Child uses object correctly over and over.
- 3. Meaning: Child puts meaning on object.

items work and what they can do with them. They may talk or shout into the "sounding" end of a doctor's stethoscope as if it were a microphone.

Art activities readily reveal children's manipulation stage. In the beginning, they may splash one color of paint on top of another until it covers the paper, or they may merely swish the same color around in scribbles. Writing activities also begin with scribbles for children in the manipulation stage—although many children are aware of the difference between their art scribbles and their writing scribbles.

2-4b Mastery: Second Interaction Stage

Once children begin to control the medium they are working with, they spontaneously progress to the *mastery stage* and seldom return to manipulation. *Mastery*, often called practice play by cognitive psychologists, refers to the tendency of children to repeat an action again and again, as mentioned, almost as if they are practicing or putting themselves through a drill.

Children in the *mastery stage* will stack one block on top of another in a tower, then knock it down and build it over, again and again (Photo 2.5). Or they may build a long line of blocks on the floor and then build a similar line parallel to the first one.

In dramatic play, the 2-year-old who has progressed through *manipulation* of the baby doll and the cradle may now put the baby to bed in the cradle, cover it over with the blanket, and rock the baby; then take everything out of the cradle and do it all over again—many times.

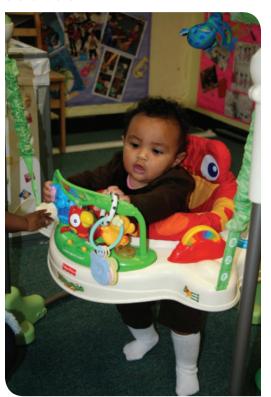
Once children have gained control of an art medium through *manipulation*, they will repeat the same operation over and over, such as painting parallel lines on one sheet of easel paper after another, or making nothing but rows and rows of cookies out of play "dough," or sticking dozens of peg "candles" in a birthday cake of dough until it can't hold another one.

A preschool child at this mastery stage of interaction with materials will repeat the same scribbles in her writing over and over, the same block structures in her building, and

the same dress-up role in dramatic play. It is almost as if she is spontaneously practicing her newfound skill until she gets it right. Cognitive psychologists note that practice play like this can even be mental, such as repeatedly asking the same questions.

Why do youngsters repeat their actions over and over until it sometimes drives parents and early childhood teachers to distraction? Elkind notes that both Montessori and Piaget have observed these repetitive actions of a young child's motor behavior. Rather than meaningless drudgery, both feel these actions are crucial for intellectual growth (Chattin-McNichols, 1992).

Photo 2.5 An infant or child in the mastery stage of exploratory play will repeat the same action over and over.



2-4c Meaning: Third Interaction Stage

The more advanced stage of children's interactions with materials occurs when the children have finally gotten control over the medium through manipulation and have satisfied their inner impulse to practice through mastery. Now, if their cognitive development is advanced enough, they are ready to add their own meaning to the activity.

It is fascinating to observe how children accomplish this. More often than not, children in completely different programs who are in the *meaning stage* of interaction will spontaneously use the same materials in the same way.

With unit blocks, children build the same kinds of buildings. In dramatic play, most children play doctor by giving shots. With painting or drawing materials, children around the world all draw their first spontaneous human, not as a stick person, but as a "tadpole person" with stick arms and legs attached to a big head/body. Even with computer programs, children in

different preschools and kindergartens make up almost identical games after mastering a similar computer program (Beaty & Tucker, 1987). It seems as though we human beings are certainly stamped out of the same mold, doesn't it?

Most infants do not progress beyond mastery to the meaning stage of interaction. Their cognition has not yet developed to the point where they can apply their own meaning to the object or the action. Most preschoolers, on the other hand, progress through all three stages of interaction over time while working spontaneously with materials and activities in the classroom.

They may begin at the easel, for example, by smearing paint around randomly in the manipulation stage. Later, they fill their papers over and over with lines and ovals at the mastery stage. Eventually, they draw a person at the meaning stage. If you as an observer can identify a child's interaction stage, it is possible to recognize the youngster's level of development. Johnson, Christie, and Yawkey (1987) and others believe that children engage in the type of play that matches their level of cognitive development (p. 8).

In that case, **by simply observing children** at work or play in one of your activity areas, you should **be able to identify which of the three interactions stages** they are using: manipulation, mastery, or meaning (Photo 2.6). This, then, will tell you **what developmental level they have reached**. Does such a system really work? Can these three stages be applied to all of the many activities that occur in a busy preschool classroom? Try it and see.

2-4d Time Frame

How long do children remain in each of these three interaction stages? "As long as is necessary" is the best answer we can give. Observe your own children and keep track of how long they do fill-and-dump manipulation-type activities in the Block Center before they begin to build the mastery-stage towers or roads over and over. It may differ with every child.

It is true that the 3-M interaction stages are loosely tied to age—that is, the younger the children are, the longer they seem to stay in the earlier stages. Maturity plays an important part, but so does practice. Children need the opportunity and time to interact with both familiar and unfamiliar materials and activities. Because different children progress at differing rates through the three interaction stages, be sure to give everyone the time necessary for this spontaneous, self-taught learning to occur.

But, you may ask, would it not be more helpful for the teacher to show immature children how to build with blocks or draw with paints? They could then progress through the stages more quickly and catch up with their more advanced peers. Not really. The

Photo 2.6 By observing children at work or play, you can identify which of the three interaction stages they are using.

