



CHAPTER  
**10**

# Play and the Learning Environment

**This chapter will help you answer these important questions:**

- Why is the physical environment important for learning and play?
- What are some learning environments?
- What are the developmental characteristics of play?
- How do we distinguish play from other behaviors?
- What are the theories on play?
- How can teachers use play to help children learn and develop?

## Vignette: Let's Make Lunch

*Gabriela, a 4-year-old preschooler, is sitting in a playhouse by a table with a plastic plate, cup, and utensils. She calls out, "Do you want to eat lunch? Come on, it's lunchtime!" Aviva, also 4, answers, "Wait." She wraps up a doll in a cloth and comes in and sits opposite Gabriela. Aviva says, "I want to help you make a sandwich." Gabriela says, "OK, let's make lunch." In the playhouse, there are plastic slices of bread, ham, tomato, and lettuce. Each child starts preparing her sandwich, and when they finish, the two girls sit and pretend to eat. Aviva then says, "I am thirsty; can I have some orange juice?" Gabriela says, "Yes, let's have some orange juice." Gabriela pretends to pour orange juice into a cup. Aviva then pretends to drink from the cup. Adam, another 4-year-old, approaches and says, "I want to play." Gabriela tells him, "You have to knock on the door to come in." Adam knocks on the imaginary door, and Gabriela asks, "Who is it?" Adam answers, "It's Adam." Gabriela then pretends to unlock and unbolt the door. Gabriela invites Adam in and asks him, "Do you want some orange juice?" They all sit down together and pretend to drink orange juice.*

Play is very significant for a child during the early childhood years. Therefore, knowledge of the development of different types of play gives educators and parents a foundation for proper teaching strategies. Goodman (1994) reported that the preeminent teaching for young children happens at the midpoint of a continuum between play and work. Professional early childhood teachers who are aware of and comprehend developmental theories of play are better prepared to use play as a context for instruction and assessment. They also understand the importance of play in social, emotional, cognitive, physical, and motor domains of development. Therefore, it is extremely important that teachers of young children have a strong academic background in the study of play to best evaluate problems and offer appropriate support to children who have a hard time playing, such as children with physical disabilities.

The vignette presented at the beginning of this chapter is an example of play, and most observers would describe it as cooperative play, when a group of children play and interact socially together. Play is an important element of a child's life. It helps children achieve mastery in certain skills, and they learn to have control over their environment. The environment and play are important elements that support each other. Even though the concept of play seems very simple, in reality the study of play is quite complex, as you will learn in reading this chapter. This chapter first discusses the definition of the physical environment and play, the defining characteristics of play, and the leading theorists. It goes on to examine the importance of play and the significance of play in children's development.

## Key Elements for Becoming a Professional

### NAEYC DEVELOPMENTALLY APPROPRIATE PRINCIPLE 10

Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence.

#### Interpretation

Play gives children the opportunity to develop physical competence and enjoyment of the outdoors, understand and make sense of their world, interact with others, express and control emotions, develop their symbolic and problem-solving abilities, and practice emergent skills.

### NAEYC STANDARD 1: PROMOTING CHILD DEVELOPMENT AND LEARNING

- a. Knowing and understanding young children's characteristics and needs
- b. Knowing and understanding the multiple influences on development and learning
- c. Using developmental knowledge to create healthy, respectful, supportive, and challenging learning environments

## WHY IS THE PHYSICAL ENVIRONMENT IMPORTANT FOR LEARNING AND PLAY?

A well-arranged environment should enhance children's development through learning and play. It facilitates classroom management and supports the implementation of curricular goals and objectives (Catron & Allen, 2007). The way the **physical environment** is designed and configured influences how children feel, act, and behave. The physical environment allows growth and development through activities and materials in defined play areas. Room arrangement for play activity plays an important role in students' social and language interactions. Poorly designed classrooms can cause disruptions and negative social interactions among students and/or between students and the teacher. For example, having the reading and writing center next to the music area would cause disruptions among children who are trying to concentrate on the skill of writing. Students can become frustrated when they do not have an organized environment to call their own (Clayton & Forton, 2001).

The physical environment is a direct image of the teacher's planning and the student's learning. It is where both teachers and students will spend most of their time and a place they can call their own and relate to. It should be well organized, comfortable, and personable and offer a variety of manipulates for cognitive, social, emotional, and physical development (Catron & Allen, 2007).

### Definition of the Environment

To understand play, we first must understand the importance of the environment in the eyes of children and adults. Some people may see the environment as insignificant, but for teachers, parents, and educators it is something that needs to be considered a high priority. **Environment** is defined as the physical environment, its surroundings, and a specific setting (Vickerius & Sandberg, 2006).

The physical environment will vary depending on the age and number of children in the classroom, as well as the goals of programs and specific activities in the classroom. The infant classroom, for example, will designate the eating, sleeping, diapering, and play areas as primary for activities. However, the most important space in which activities will be performed is the play area. The play area of infants needs to be configured so that they can grasp and reach age-appropriate toys or pull themselves up when practicing standing or walking (Vance & Boals, 1989). Infants will need to be down on the floor exploring their environments with toys to look at, listening to things around them, feeling, chewing, pushing, pulling, stacking, rolling, turning, squeezing, and shaking (Vance & Boals, 1989). To maximize infant supervision, it is best to have all the activities in one room. This includes the sleeping area. Some researchers have recommended a separate room for sleeping (Willis & Ricciuti, 1974); others, however, have found that sleep patterns are not adversely affected by having a sleeping area in the same room as a play area (Twardosz, Cataldo, & Risley, 1974). Having a cozy, warm, and homelike environment in the classroom provides infants with a healthy social/emotional environment.

The physical environment for a toddler classroom has eating, napping, diapering, toileting, and playing areas. Play continues to be very important, and learning centers become more obvious for this age-group. Areas are subdivided into dramatic, block, art, library, manipulative, and science learning centers. Toddlers need spaces that allow them to experiment, explore, and discover things around their environment. They are constantly moving or on the go and need many opportunities to practice newly emerging skills (Vartuli, 1987).

The preschool classroom will have similar physical space needs to the toddler classroom. The only difference is the diapering area, no longer needed in the preschool classroom. Therefore, eating, napping, toileting, and play areas continue to be essential. Learning centers are emphasized in the

preschool classroom; such centers include block, art, library, pretend or dress-up, science, and music, just to name a few.

## WHAT ARE SOME LEARNING ENVIRONMENTS?

Decisions about how the classroom or physical environment is arranged will depend on the philosophy and goals of the teacher. Depending on the teacher's objectives, the room arrangements and placement of instructional materials will differ; however, certain essential features will need to be in every classroom (Hand & Nourot, 1999). For example, one teacher's belief is that children become more literate through participating in a broad range of activities that include read-aloud and group reading. Given this belief, the teachers will make sure that their classrooms have a comfortable library area, that the children can access many literacy materials without asking for them, and that they have table space for reading and writing silently.

### Learning Centers

Learning centers, also known as learning areas, are a system that is used to arrange a classroom or organize materials in a classroom. The term *learning center* has been judged by many because it has a connotation that learning takes place only in these specific centers (Brewer, 2004). The essential discussion underpinning this topic is that learning occurs every day and everywhere, whether it is inside or outside the classroom. Therefore, for purposes of clarifying the term, a learning center is defined in this text as a specific location where instructional materials are placed and organized in a classroom.

Some of the learning areas that are most common and that you will see in the early childhood classroom are art, library/listening/writing activities, blocks, dramatic play, science/discovery activities, and manipulative/mathematics/games. Keep in mind that these areas will need to consider the children's ages, interests, and abilities, and thus will need to change accordingly.

### Materials and Equipment for Early Childhood Classrooms

Play materials in the classroom are extremely important for multiple developmental perspectives such as cognitive, social/emotional, physical, and language. Teachers need to be cognizant of the age-appropriate play material/equipment and furniture for the classroom. Table 10.1 includes some common learning centers and materials that preschool and primary-grade teachers have found to be beneficial.

### Preparing the Physical Space for Play

In structuring the physical environment for play, consider these questions: How is the space arranged, both indoors and outdoors? Are there clearly marked areas in which children may find the housekeeping, reading, and block materials? Is there enough space between the areas to walk around? All of these features of a classroom will foster children's freedom to choose their own activities, which in turn develops the complexity of their play as well as encourages ongoing play.

In addition to the arrangement of the classroom, size is important. Research on children's play environments indicates that between 30 and 50 square feet of usable space per child represents an ideal size for indoor environments. Spaces with less than 25 square feet per child generally lead to increases in aggression and unfocused behavior for children (Smith & Connolly, 1980). For teachers,

**Table 10.1** Materials and Equipment for the Early Childhood Classroom

**DRAMATIC PLAY**

- Child-sized kitchen equipment (with pots and pans)
- Dishes and silverware
- Tables and chairs
- Telephones
- Child-sized ironing board and iron
- Child-sized cleaning equipment (brooms, mops, dustpan, etc.)
- Assorted dolls
- Doll clothes
- Doll bed, carriage
- Dollhouse, furniture
- Assorted tubs, buckets, dishpans
- Assorted dress-up clothing and costumes

**BLOCKS**

- Blocks
- Block accessories (people, cars, safety signs, etc.)
- Small blocks (sets of cubes, small colored blocks)
- Sturdy wooden vehicles (cars, trucks, boats, planes, tractors, fire engines, buses, helicopters)

**ART**

- Adjustable easels
- Brushes (half-inch to 1-inch widths)
- Liquid tempera paint (in a variety of colors)
- Painting smocks
- Crayons
- Colored chalk
- Clay
- Scissors
- Glue
- Paper (construction paper in a variety of colors, tissue paper, newsprints, white drawing paper)
- Drying rack for paintings
- Miscellaneous supplies (fabric scraps, rickrack, yarn, ribbon, glitter, buttons, natural materials)

**LIBRARY/LISTENING/WRITING**

- Computer and printer
- Typewriter
- Paper (various colors, sizes, shapes) and writing instruments (pencils, markers)
- Tape recorder, tapes, books with tapes
- Record player
- Flannel board with stand and flannel pieces
- Books (professional and published by classroom authors)
- Magazines

## MANIPULATIVE/GAMES

- Hand puppets
- Puzzles
- Games (board games)
- Beads and strings
- Sewing cards
- Manipulative materials (ranging from stacking rings to very complex materials)
- Tinkertoys
- LEGO bricks, Bristle Blocks

## SCIENCE/DISCOVERY

- Aquarium
- Terrarium
- Magnets of various kinds
- Magnifying glasses
- Prism
- Metric measuring equipment, test tubes, slides, petri dishes
- Pattern blocks
- Pegs and pegboards
- Scales
- Rhythm instruments
- Sandbox
- Water table with top
- Workbench with equipment

## PHYSICAL EDUCATION

- Balance beam
- Tumbling mat
- Rocking boat
- Steps
- Walking boards
- Jungle gym
- Fabric tunnel
- Sawhorses
- Climbing ladder, climbing rope
- Balls of various sizes
- Ropes, hula hoops
- Bowling set
- Outdoor equipment (gardening tools)

Source: Adapted from Brewer, J. (2004).

crowded physical spaces promote more directive teaching and limit opportunities for social interaction among children. In thinking about room arrangements, you may want to consider both the spaces arranged for children's play and the surrounding space, which is the area needed for people to move about. Space generally shapes the flow of play and communication in the classroom or outdoors (Kritchevsky, Prescott, & Walling, 1977; Loughling & Suina, 1982).

## Setting Up the Classroom

Research has indicated that the way the classroom is arranged and the way it looks are significant because they influence children's and adults' behavior. Therefore, when setting up the classroom, teachers should consider the following suggestions:

1. Centers should have multiple uses, not just serve one specific center topic.
2. Have as much natural light in the classroom as possible. Natural light reduces energy use but, most important, enhances task performance and improves the appearance of an area.
3. Keep noisy and quiet areas separate. Noisy areas such as dramatic play and music should be located at one end of the room, opposite to the quiet area. This will allow each area to have its activities in a comfortable location.

Figure 10.1 illustrates how an indoor classroom is arranged, and Figure 10.2 shows the arrangement of an outdoor classroom.

## A Safe Environment

A safe environment encourages exploration and play behaviors in young children. Therefore, a safe environment is very important for teachers of young children and child care centers. When parents bring their children to a child care center, they expect them to be safe. They assume the playground, equipment, toys, and other materials will be safe for children to use and that teachers will carefully supervise their activities (Wellhousen, 2002). These expectations require teachers to be well informed and knowledgeable about how to create and maintain environments that ensure children's health and safety.

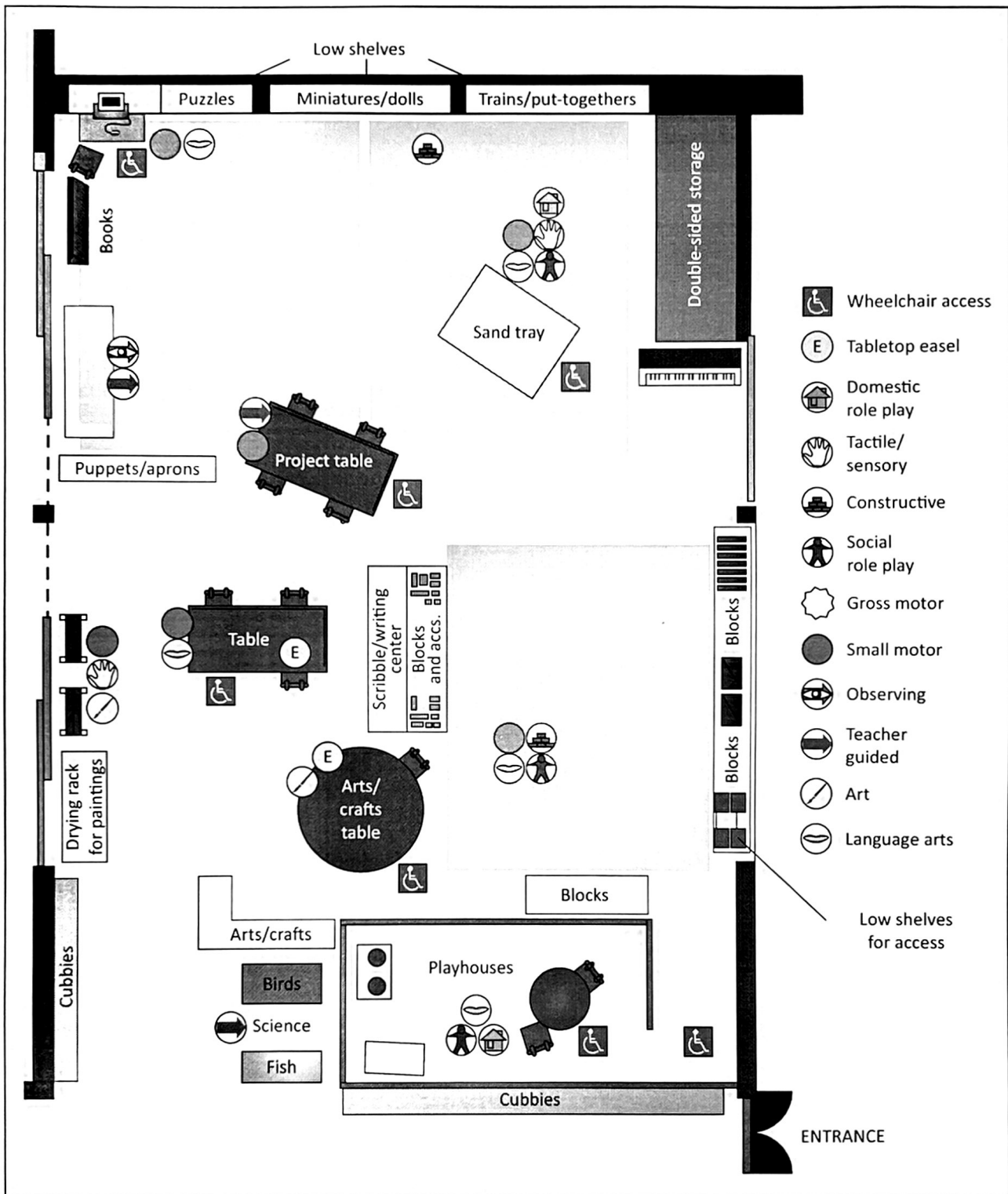
To avoid injuries and age confrontations, infants and toddlers are expected to have a separate play area from the preschool children. A large, open space, free from obstacles, for the play area is encouraged for very young children. This type of area helps infants and toddlers move about and explore their environment without any hesitation.

**Fire Safety.** Fire regulations require that fire extinguishers, as well as smoke and carbon monoxide detectors, be present and in working condition in all classrooms. Fire exits, fire alarms, and fire escapes should be labeled clearly, and staff should be familiar with the location of building exits and emergency procedures. In order for children to be familiar with fire drill routines, teachers should be trained and conduct regular fire drills. This would allow children not to be frightened if a real emergency did occur.

**Sanitation and Bathroom Facilities.** Classroom toys and other equipment are required to be sanitized on a daily basis, as this will reduce germs from spreading around. All child care centers are required to have adequate washing sinks, toilets, soap dispensers, and a towel rack. Having the right size fixtures allows children to care for their own needs. The bathroom facilities need to be accessible to both indoor and outdoor play areas. Health regulations require one toilet and sink for every 10 to 12 children in a child care facility.

**Lighting, Ventilation, and Temperature.** Adequate lighting is of the essence in a classroom. Of course, the most desirable light is natural light coming from windows and/or glass doors; however, if this is not available, a no-glare light would do just fine. Windows and glass doors that are reachable to young children should be made of safety glass or plastic to avoid serious injuries to children if a window or door is broken. Doors and windows should be covered with blinds or shades to control the light and should also have locks. All rooms should have appropriate air ventilation and heating for a comfortable classroom environment.

**Figure 10.1** Indoor Settings: Preschool and Kindergarten



Source: Van Hoorn, Nourot, Scales, and Alward (2005). *Play at the Center of the Curriculum*, 5th Edition, © 2011. Adapted by permission of Pearson Education, Inc., Upper Saddle River, NJ.

# The Practice of Research and Theory

## The Importance of Physical Education in Preschool

When children are engaged in play in any type of environment (either indoor or outdoor), they are naturally involved with some physical movement. Researchers on physical education and movement emphasize that the preschool years are a fundamental period for the development of motor skills (Wellhausen, 2002). In 1992, the Council on Physical Education for Children published an article that emphasizes the appropriate physical movements for preschoolers enrolled in child care centers. This article also presents five premises for understanding preschoolers' physical education:

1. When it comes to motor development, 3-, 4-, and 5-year-old children are different from elementary-age children. Young children are perfecting their fine and gross motor skills at ages 3 to 5, unlike the elementary-age children who have accomplished their motor skills.
2. Young children learn through interaction with their environment. Children learn best when they are socially interacting with other people and with objects in their environment.
3. Teachers of young children serve as guides or facilitators. Teachers are in a classroom not just to tell children what

to do but to guide and assist them through the learning process.

4. Young children learn and develop in an integrated fashion. Play is the cornerstone for multiple disciplines, such as art, language, and physical education.
5. Planned movement experiences enhance play experiences.

Further, the National Association for Sport and Physical Education (Council on Physical Education for Children, 1992) recommends that preschool programs incorporate physical education into their curriculum. Preschoolers who enjoy and participate in physical activities develop positive attitudes toward health and fitness. Involvement during the preschool years is the first step toward becoming a physically educated person who

- has learned the skills necessary to perform a variety of physical activities,
- participates regularly in physical activity,
- knows the implications of and the benefits from involvement in physical activities, and
- values physical activity and its contributions to a healthy lifestyle (Wellhausen, 2002).

## Definition of Play

**Play**, on the other hand, is difficult to define. Many educators and philosophers have defined the term, each adding some variation to its meaning. The broad category of activities that are covered by the term *play* include a great variety of behaviors, such as swinging, sliding, running, digging in the dirt, building with blocks, dancing to music, making up nonsense rhyming words, dressing up, and pretending. Because of this variety, no one definition of play can adequately describe its many facets.

Some may argue that play does not need to be defined, explained, or studied; most people would recognize play when they see it. Play is often interpreted as the opposite of work, something that is done on the weekends, during vacations, or with children. Understanding the term *play* from an academic point of view is critically important to early childhood educators.

Many researchers have tried to define play, in particular Erik Erikson, Jerome Bruner, and Lev Vygotsky. They have been able to contrast their research studies of play in order to better define it. Erikson (1963), for example, suggested the following definition:

When man plays he must intermingle with things and people in a similarly uninvolved and light fashion. He must do something which he has chosen to do without being compelled by urgent

# BEST

## Practices Children Engaged in Play Through Their Environment

Young children learn the most when they are actively interacting with other people and manipulating objects in their environment (Kamii & DeVries, 1978; Piaget, 1952). Experienced early childhood teachers who instantly see these benefits set up indoor play environments to reflect this philosophy. However, setting up an outdoor environment is more challenging; children do not have the opportunity to manipulate outdoor toys or objects as readily, with the exception of sand, water play, and tricycles (Frost, Bowers, & Wortham, 1990). A solution to incorporating outdoor toys is having movable toys, or accessory materials that are manipulated by children. Examples of movable toys include outdoor blocks, boards, crates, sawhorses, and cable spools. Classroom materials that are used indoors

such as puzzles, books, and art supplies can also be used outdoors (Frost & Wortham, 1988). All young children will need time and opportunity to become familiar with outdoor toys, materials, and equipment in order to discover the different ways to interact with them. In particular, to teach children with special needs, much repetition is required for them to learn from the materials. Therefore, movable toys, materials, and other equipment should not be changed or removed too often (Klein, Cook, & Richardson-Gibbs, 2001). An example of movable equipment that should not be removed is an obstacle course. Young children should be given the opportunity to interact with this equipment until they have had a chance to master it completely.

interests or impelled by strong passion. He must feel entertained and free of any fear or hope of serious consequences. He is on vacation from social and economic reality—or as is most commonly emphasized: he does not work. (p. 212)

Bruner (1972), a distinguished psychologist, defined play as the following:

Play appears to serve several centrally important functions. First, it is a means of minimizing the consequences of one's actions and of learning, therefore . . . [it is] . . . a less risky situation . . . Second, play provides an excellent opportunity to try combinations of behavior that would, under functional pressure, never be tried. (p. 693)

According to Bruner, play can be seen as the main opportunity for children to take risks without fear of failure. His definition also proposes that creativity and play activities are closely related. That is, if children explore and experiment in their play, the possibilities for creative outcomes are greatly enhanced without the fear of failure. For example, a toddler playing with Play-Doh can creatively explore and experiment freely as there is no right or wrong way to create and mold with this material.

Vygotsky offered additional insight into childhood play. For Vygotsky, imaginative play is the main focus for the general development of the child. He suggested that we must challenge the child to increasingly higher levels of functioning, what he referred to as the zone of proximal development (see also Chapters 2 and 4):

Play creates a zone of proximal development in the child. In play, the child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development. (Vygotsky, 1978, p. 102)

Early childhood teachers go to great lengths to create play-based learning activities, but it can be difficult to assess if play is freely chosen in these developmentally appropriate preschool classrooms. If a child made a game out of an assigned task, would you consider it work, play, or both? As a teacher giving a lesson in your classroom, you would consider this work. The challenge is to be able to recognize that play provides developmental context and content for early learning, which then raises questions about the exact definition of play (Slentz & Krogh, 2001).



Children should be engaged in a variety of physical activities that are safe.

## The Benefits of Play in the Environment

Play is a necessary element of healthy development for children of all ages. Play influences all areas of development; it offers children the opportunity to learn about the self, others, and the physical environment (Catron & Allen, 2007). It encourages aspects of social, emotional, cognitive, and physical development that cannot be achieved any other way. Children learn how to interact with peers when engaged in play activities while also building on important schemas about the real world. Although play has been looked at by many as just a time filler for caretakers, much research has been dedicated to the benefits of play that would suggest that play is vital for every child.

Through play, children build important knowledge that encompasses many developmental domains, such as literacy and mathematics. Even in the earliest years, children become familiar with words by playing with books or other materials that have letters on them. Throughout the school years, children are constantly developing their language skills through play, as well as learning important roles that pertain to the real world (Seefeldt, 2001). For example, when children are engaged in playing “house” or “dress up,” they are often interacting with one another, which is important for language development while applying and modifying their current knowledge about the real world.

During play, children are also able to begin their gender identity process; they establish relationships with one another, thus creating a sense of intimacy. Also, play is children’s means of self-expression, which is important for their emotional development. While engaged in play, children feel safe and are able to express any part of themselves at that moment without worrying about reprisal. Children learn how to express their feelings; they use play to relax tension and anxiety, release aggression, and express conflict. See Table 10.2 for a thorough list of benefits that play offers children.

## WHAT ARE THE DEVELOPMENTAL CHARACTERISTICS OF PLAY?

Piaget’s and Vygotsky’s contributions to our understanding of the characteristics of play are in the dimensions related to abstract thinking and the creation of rules (Van Hoorn, Nourot, Scales, & Alward, 2007). Piaget (1952) saw play as the construction of knowledge within the individual child by interacting with the object (toy). On the other hand, Vygotsky (1978) perceived play as a social interaction (two children playing together) and believed children learn about the self through their interactions with others. Ultimately, it is through the act of play that children come to see the developing self. Mead (1934), another researcher, found that play is the major vehicle for young children to learn to differentiate their own perspectives from those of others (Catron

**Table 10.2** The Multiple Benefits of Play

1. Development of motor skills	7. Vocabulary growth
2. Sharpening of the senses	8. Increased concentration
3. Expression of emotions—empathy	9. Flexibility
4. Sharing, turn taking—harmony	10. Role taking
5. Ordering, sequencing	11. Expansion of imagination and creativity
6. Delay of gratification	

Source: Adapted from Goldstein, J. H. (1994).

& Allen, 2007). When children play “pretend” and undertake other children’s roles, they come to view their own behavior from the perspectives of other children. According to Mead, the young child functions in the pretend play, achieving a role transformation from the self to others (Van Hoorn et al., 2007). Similarly, Smilansky (1990) explained this developmental process as the beginning stages of role-play. The child simply becomes or pretends to be a doctor, nurse, chef, or teacher and then returns to being the self.

## Cognitive Development and Play

To show how play functions and develops as a complex, adaptive system as children grow older, it is helpful to review some of the commonly recognized forms and developmental sequences of play. Sara Smilansky (1990) provides a model presenting five basic forms of play:

1. **Functional play** or exploratory play. This type of play is a sensorimotor approach in which a child learns the nature of his or her surroundings. Such examples include dumping, filling, stacking, water play, and outdoor play.
2. **Constructive play** describes children combining pieces or entities, such as with blocks. The purpose of this type of play is to make something and/or work out a problem.
3. **Dramatic play** entails pretending. The child pretends to be someone else, for example the teacher or a fireman. This type of play does not require any social interaction with other children. See the example provided below.

Ricky is 4 years old and is playing with a fire truck in front of his house. He is pretending to drive a fire truck. As he drives his truck, he sounds the sirens, screaming, “Whee-oooh! Whee-oooh!” He is speeding to get to the fire. As he arrives at the fire, he connects the fire hose to the fire hydrant and holds the hose toward the fire. He then raises the tall ladder all the way up to the top floor of the building. He holds the hose and shoots at the flames. He makes a sound of relief, saying the fire is gone and the building is saved.

4. **Sociodramatic play** is a form of dramatic play with more than one player socially interacting around a theme and a time trajectory over which the play continues and evolves. Children enact real-life types of play activities.

Jeffrey and Brian are 7 years old and are playing together at a park. The two boys are imitating army men and are pretending the play structure is their ship. Brian exclaims, "Take the wheel—I see land!" Once they decide they have landed, they proceed to crawl on the wood ships, dragging their stomachs to a nearby tube. Both boys struggle in the new shelter and take their shoes off. After whispering for some time about the enemy, they continue to throw their shoes and make explosion noises. Following the shoe explosions, both boys take off in opposite directions screaming and looking for cover.

These boys are engaged in sociodramatic play. They have taken an object (their shoes) and turned it into something completely different, drawn from their imaginations. Also, they are not just children anymore; they have taken on the role of people in the army. Not only are they army men, but they are busy running from pretend people. In addition, they have taken a typical play structure and turned it into a ship.

5. **Games with rules** encompass cooperative play, often with winners and losers. These games are distinguished by child-controlled rules and thus are different from the competitive games usually called "sports." Children begin the games with rules stage at about age 6.

Games with rules become more evident as children move from early into middle childhood. This type of play behavior suggests that children are understanding the social rules of our culture.

## Social Development and Play

A number of researchers have suggested different types of models to describe children's social play. Mildred Parten (1933) presented a model of socialization skills in play that is considered one of the best in the field. Parten states that children engage in solitary play until about 2 1/2 years of age. Children move from solitary play into parallel play, associative play, and then cooperative play.

1. **Solitary play**—Children play alone, usually with toys that are different from those of the children playing nearby. Children at this stage make no attempt to get close to or interact with others. Clearly, the level of social interaction at this point is very low. It is important, however, to realize that despite its lack of social value, solitary play should be encouraged as a part of a young child's activities. Much of an elementary child's day, for example, is spent doing independent seatwork. Children who have learned to be comfortable in solitary play are more likely to succeed in working independently.
2. **Parallel play**—Children from 2 1/2 to 3 1/2 years old continue to play independently, but now they are among their peers and use toys that are similar to those of the children around them. Just as parallel lines run side by side, children in this play stage play beside, but not with, others. There is an awareness of the children nearby but little interaction, as in the following example of parallel play:



While playing with blocks, the infant is learning by using the sense of touch.

Sarah and Madison are both 26 months old and are playing in the sandbox. Both girls are digging holes and filling up buckets with sand. Although they are both engaged in the activity, they do not speak to one another or interfere with each other's area. After some time of playing in the sand, their only interaction with each other is when Madison takes Sarah's bucket and a conflict arises. When the bucket is returned, the two girls go back to playing in the sand, keeping to themselves for the remainder of the time.

3. **Associative play**—As children mature, they begin to engage in associative play, which begins at about 3 1/2 years old. In this type of play, children truly play with others. Children loan and borrow play materials among one another. Parten (1933) suggests that at this point, the associations are more important than the play activity itself. Children begin to form small playgroups and spend considerable time moving from one activity to the next, with playmates remaining together. The following is an example of associative play:

Jessica is almost 4 years old and has a younger brother who is 16 months. She carefully watches over him and is often instructing him in what he can and cannot do. When he wanders off, she is quick to stop him from going anywhere, even when it is unnecessary to do so. He usually consumes most of her time; however, today her friend Kelly comes to the park. Within moments of the two girls spotting one another, Jessica loses all interest in her brother and replaces it

with interest in Kelly. Jessica is following Kelly all over the play structure, and the girls become nearly inseparable during their playtime. When the girls decide to go down the slide, Kelly instructs Jessica to go down the other slide (which is parallel to her slide) so they can go down at the same time. Then the two girls choose the swings for some entertainment, but quickly change their minds when they see that only one is available and they wanted to swing together. At the end of the play day, Jessica's brother attempts to come on the play structure, and Jessica instructs him to go away and tells him, "There are no babies allowed here." When Kelly states, "It's OK—he can play with us," Jessica yells for her brother to come back.

These girls demonstrate associative play. They are discussing what they are going to do and disregard plans that do not allow the two of them to be together. Also, they decide together who can be a part of their play and who cannot; when Kelly gives her approval of the new child in their play, Jessica is quick to agree.

4. **Cooperative play**—This final type of social play begins to take place at about 4 1/2 years of age. Parten (1933) describes this as the highest level of social play; it is characterized by children playing in groups as they did in associative play, but now the children demonstrate division of labor, whether working on a group project or cooperating to attain a common goal.

Cooperative play is a more sophisticated type of play because it requires the process of negotiation among two or more children. An example of this negotiation process is when three



As children pretend to be a doctor and a patient, they learn the rules and roles of those positions.

children are pretending to work in a hospital setting. One child pretends to be the doctor, the second a nurse, and the third the patient. First, they negotiate by alternating their roles in the play, then they make suggestions about the plot, and one suggests they pretend that the patient has a cut and is bleeding and needs stitches and a bandage.

## Emotional Development and Play

Play is an excellent vehicle for helping children with their emotional development (Johnson, Christie, & Yawkey, 1999). Children can master emotional issues such as anxiety, frustration, normal developmental conflicts, traumatic situations, unfamiliar concepts, and overwhelming experiences in their play. That is, play helps children find new ways of dealing with their emotions and their reality. As children play, they explore the properties of things and extract information about their environments. They imitate, re-create, and rehearse roles that help them understand and solve problems related to everyday living. They form relationships, share, cooperate, master their feelings, extend the range of their experience, test ideas, and form associations between things, events, and concepts.

Another major emotional benefit of play is that it gives children numerous opportunities to feel good about themselves. Because there is no right or wrong way to play, children have multiple experiences in play, which positively influences their concepts of self.

## Language Development and Play

The act of play is influential in learning language and communication skills. When children are engaged in play, they use language to interact with their peers; as they interact, they are using different tones and sounds to regulate their speech, and are developing new vocabulary. Several researchers have argued that play and language promote children's development of expressive tones as well as their perception of the rules underlying the use of voice or conversation patterns of language (Bergen, 2002). Children are also able to improve their oral and written language skills. The language used in play, for example, encourages the development of **metalinguistic awareness**—the ability to reflect consciously on the linguistic operations and analytical orientations of language—which generates literacy development. This metalinguistic awareness allows children to think about the words they will be using in their conversations. Children experiment with words and manipulate their use, meaning, and grammar. Through words, children experiment with rhythm, sound, and form (Johnson, 1928). Garney (1990) proposed that *every* characteristic of language can be better understood through play.

## Physical Development and Play

A major characteristic of play is being active through dancing, jumping, throwing, running, and generally moving around. And children often strengthen their **gross motor development** through the use of their large muscles in these activities (Gallahue, 1982). Other types of play activities, such as cutting, eating, writing, buttoning, painting, and dressing, provide for their **fine motor development**, or refinement of the skills that require the use of smaller muscles. Through play, children are naturally able to use and learn to refine their gross and fine motor skills and coordination. As children get older, they use their muscles in continually more complex ways, integrating large and fine muscle movements with visual perception (Henniger, 2008).

## Creativity and Play

Through creativity, children use their imagination to invent or produce something new. The early years are very important for the development of creativity; young children have many opportunities to express and develop their creative talents. For example, during free play, young children

experiment with things and ideas and create new combinations that they have never experienced before. Wasserman (1992) states it this way: "The creation of new ideas does not come from minds trained to follow doggedly what is already known; the creation comes from tinkering and playing around, from which new forms emerge" (p. 134). Children develop their creativity in play situations that require them to use their imagination (Singer, 1973). Therefore, play materials are supposed to help elicit new ideas for children. Fostering creativity in children helps them promote healthy development and happy dispositions.

## Developmental Benefits and Play

In addition to its developmental benefits, play provides a joyful experience for children, and it opens up the world to a child. No matter how eager we may be as early childhood educators to provide purposeful play opportunities for children that will enhance development and lead to learning, we must never forget that one of the greatest gifts of childhood is the ability to pursue seemingly insignificant interests and to explore tiny details to one's heart's content. Play is a marvelous, renewable resource in the life of a child. Play can follow any path the child desires and will end when the child decides to move on to something else or when the demands of living in the world intrude on the child's own agenda.

Play is practical, authentic, and an often suggested educational endeavor for young children who are gaining much of their knowledge about the world through their senses. Young children are very much dependent on sensory learning and physical contact with their environment (Catron & Allen, 2007). When play is sense based, it encourages children's active involvement and is relevant and meaningful to them since they find it easier to attend and remain interested. When children are active in their play, learning becomes much easier.



These young children are playing with shapes and organizing and sorting them.



## Consider This The Importance of *Play*

Susan is a grandmother who raised her three kids in the mid-1960s. When she was raising her kids, she did not know much about the importance of play and the benefits that play has for children. The research was not as evident, and parents did not know that play forms the foundation for cognitive, creativity, and language development. Susan thought that when her children were playing, they were just having fun and entertaining themselves. She never thought that their play promoted their intellectual and social development. She is glad to

see and read the extensive research people have done in the area of play. Her grown-up daughter has benefitted from reading the research on play because she has exposed her kids, Susan's grandchildren, to quality books and exploratory toys that engage and challenge the mind.

How would you respond if a parent asked why the children in your care were allowed to spend so much time playing or told you that play has no contributions to learning in a child's development?

### HOW DO WE DISTINGUISH PLAY FROM OTHER BEHAVIORS?

Agreement about definitions allows researchers to compare results from study to study and to establish consensus on what is being observed. Existing theories tend to agree on certain features that distinguish play from other behaviors (Rubin, Fein, & Vandenberg, 1983). Rubin et al. (1983), for example, have identified five characteristics that have been used to define play. These include (a) active engagement, (b) intrinsic motivation, (c) attention to means rather than ends, (d) nonliteral behavior, and (e) freedom from external rules.

#### Active Engagement

Children are active agents in their environments. They explore and figure out how to communicate and respond to events and people around them. Through the process of play, children engage in learning about the world by constructing knowledge through interaction with the people and the things around them (Chaille & Silvern, 1996). Children are active agents in their environment, for example, by being exposed to a variety of toys that will challenge their thinking skills and support the process of learning.

#### Intrinsic Motivation

Intrinsic motivation is the inherent yearning for children to do something tangible because they will learn something new from their experience. Children are motivated to choose new playthings or activities because they offer a new challenge on a familiar experience. For example, LEGO bricks, the popular children's toys, provide the opportunity to apply familiar constructive play skills in an innovative, comprehensive way. Children also use familiar objects or activities to offer a safe outlook on a new and perhaps discrepant experience (Monighan-Nourot, Scales, Van Hoorn, & Almy, 1987). For example, after seeing her mom prepare her lunch, Gabriela was seen playing in the playhouse, preparing herself a meal. Gabriela was performing a familiar activity based on her prior observation and experience.

## Attention to Means Rather Than Ends

While in play, children are less worried about a particular goal than they are about various methods of reaching it. Because the children themselves are establishing their own goals, the goals may change as play progresses. Once a child learns how to solve a puzzle, she or he might stack the pieces in new arrangements or use them in a completely different activity.

## Nonliteral Behavior

Nonliteral behavior, which begins as early as the first year of life, is the distinctive feature of symbolic play (Fein, 1975). Children transform objects and situations to fit their play theme, such as pretending their fingers (their thumb and pinky) are a telephone. This concept of make-believe is thought to be a key factor in the hypothetical or “as if” types of reasoning called for in scientific problem solving (Fink, 1976). Make-believe may also play a part in the use of abstract symbols (Fein, 1981; McCune, 1985, 1986; McCune-Nicolich, 1981).

## Existence of Implicit Rules

Although there are no externally enforced rules in the types of play preschool children engage in, play often has **implicit rules**, maintaining the fantasy and reality distinction. An illustration is a group of children playing “doctor.” The behaviors of a girl playing the role of the doctor and a boy playing the patient with a scraped knee reveal the two children’s understanding of the rules pertaining to the roles of doctor and patient, as well as the children’s understanding of their relationship (Monighan-Nourot et al., 1987).

Children are also capable of creating rules when entering a play situation. They develop a plan and presume their roles. This process of following rules and taking a role is an intrinsically motivated experience for children. Through this experience, children learn to understand their own roles and the rules that define them. Most important, children learn the roles and rules of others (Fein, 1984; Monighan, 1985). As a teacher, you can observe not only the play, but also the behind-the-scenes negotiations between the children that form the rules of their play. This observation will provide you with information of how children negotiate rules and understand the rules of their play.

## WHAT ARE THE THEORIES ON PLAY?

Within the last two decades, researchers have proposed important theories to support the understanding of the behaviors seen in children’s play. Mellon (1994) described two types of theories: classical (pre-1920) and contemporary.

### Classical Theories

Before the 1920s, classical theories of play emerged from philosophical thinking on the nature of childhood and the perceived value of playful activities. These theories highlighted the biological and innate aspects of play, using both physiological and evolutionary explanations instead of focusing on the children’s variations of activities. Classical theories attempt



A preschooler is actively engaged in riding a tricycle.

thinking on the nature of childhood and the perceived value of playful activities. These theories highlighted the biological and innate aspects of play, using both physiological and evolutionary explanations instead of focusing on the children’s variations of activities. Classical theories attempt

to explain the reason that play exists and its meaning. Gillmore (1971), a researcher on play, summarizes the classical theories of play—surplus energy, relaxation, recapitulation, and pre-exercise—as follows:

**Surplus Energy Theory.** Friedrich Schiller (1878/2003), a German poet, suggested the surplus energy theory. This theory proposes that play is a method of removing from any living being the excess energy that is available after meeting the basic survival needs. He further explained that play is an activity that individuals use to replenish the energy lost. The idea with surplus energy theory is that play is the opposite of work; that is, when you are at play you are engaged in a recreational activity, and when you are at work you are engaged in some sort of labor, something that you may not enjoy.

**Relaxation Theory.** The relaxation theory (Patrick, 1916) proposes that, through play, individuals restore the energy that they exhausted during their work. Hence, after working for a period of time, individuals need to play to relax and to generate sufficient reserve energy for work.

**Recapitulation.** G. Stanley Hall (1906), an American psychologist, found and established his recapitulation theory from Charles Darwin's theory of evolution. Recapitulation can best be seen as the psychological evolution and relaxation theory as the physiological evolution. In the recapitulation process, children repeat the human race's stages of development in their play. Play is an inherent manner of discontinuing primitive skills and drives that individuals have inherited from the time civilization began. When individuals use play to migrate through these primitive stages, they become prepared for the endeavors of adult life.

**Pre-exercise.** Karl Groos (1901), a zoologist, studied play behavior first in animals and later in humans. He recognized many of children's play behaviors in adult games, customs, and competitions. Groos, through his research created a system that grouped the different types of play, such as games with rules, rough-and-tumble play, and dramatic play. Play, according to Groos, encourages children to emulate behaviors that are similar to adult roles, which in turn they will assume in the future. For instance, children enact parental roles in dramatic play (e.g., a child pretending to drive a car to go to work). The pre-exercise theory suggests that play is a natural way of preparing children for the endeavors of adult life because their play experiences are similar to those they will encounter as they get older.

These four classical theories are believed to be inadequate today because they are derived from philosophical principles rather than empirical research studies (Ellis, 1973). In addition, the classical theorists did not address the theoretical facts to inform their ideas. However, the classical theories are the foundations for the contemporary theories of play, which are discussed next.

## Contemporary Theories

Contemporary theories of play give emphasis to the psychological value and significance of a child's social, cognitive and emotional development. In other words, they address the importance of higher levels of thinking and symbolic thought. Unlike classical theories, contemporary theories are supported by empirical research. Contemporary theories consist of psychoanalytic, arousal modulation, metacommunicative, and cognitive theories (Mellou, 1994).

### Psychoanalytic

Sigmund Freud (1923/1973) hypothesized that play performed a special function in children's emotional development. Play achieves a therapeutic effect; it enables children to relieve themselves of negative emotions and replace them with more positive ones. This therapeutic effect facilitates children's ability to play freely so that they can disengage themselves from any negative feelings brought on by traumatic experiences or personal confrontations. Play activities and explorations

help the children to better understand distressing events and to search for alternative meanings that embrace pleasurable feelings and forgo unpleasant ones (Wehman & Abramson, 1976).

## Arousal Modulation

This theory describes how play lets individual children find sources of stimulation to capture certain information to learn about the world around them. Berlyne (1969), a researcher in this area, speculated that there is a need in children's central nervous system to keep arousal at an optimum level. Too much stimulation (e.g., seeing a strange object) increases arousal to distressingly high levels, steering children to participate in activities that reduce stimulation (e.g., looking at an already familiar object). Lack of stimulation reduces arousal to lower levels, creating monotony and boredom. The child then strives to seek more stimulation, which Berlyne (1969) calls "diverse exploration" (p. 797).

## Metacommunicative

Children's play is found when children interact among each other to create a make-believe behavior (Bateson, 1955; Frost, 2010). When playing make-believe, children are imitating real-life behaviors. Consequently, children learn about (a) the make-believe play with objects, often forcing reality to conform to their own point of view, and (b) the real life play behavior, which is a transition between pretend play and nonplayful play activities. Play is the **metacommunicative** (connecting the thought processes of two people and using language to describe events) perspective of what people consider their cultural and personal reality, meaning that play and pretend are important for children's intellectual growth.

## Cognitive

Piaget (1952) and Vygotsky (1967) are the principal originators of cognitive development theory. The theory is about the construction of thought processes and intelligence. In other words, as humans we are able to acquire knowledge, to reason, and to make decisions. Piaget states that children acquire knowledge through the dual processes of assimilation and accommodation (see Chapter 4). In assimilation, children learn new material from the outside world and fit it into their existing knowledge. For accommodation, children adjust their knowledge to the new information being presented. For example, children will adjust the newly incorporated knowledge, compare it, and notice that it does not match with the information that they already know. Usually, assimilation and accommodation will occur at the same time, creating a state of balance or equilibrium. Both assimilation and accommodation are to maintain a balance between the structure of the mind and the environment. We tend to balance assimilation and accommodation to create a stable understanding of the world around us. For play, assimilation takes dominance over accommodation; that is, children assimilate new intellectual materials or ideas (Fein & Schwartz, 1982; Frost, 2010) instead of accommodating to the realities that they have seen and heard about.

Piaget's (1952) cognitive theory consists of three stages of play:

1. Functional play, also known as sensorimotor
2. Symbolic play
3. Games with rules

Children progress through these stages in a conforming sequence. As children advance through the stages, they acquire new skills and move from one level of mastery to another. An infant playing with a rattle (functional play) will learn eye-hand coordination, and will improve this skill to the point of moving to the next level of mastery (symbolic play).

Vygotsky (1967) believed that conflict and problem solving are the essential characteristics of development. His primary focus of research was the belief that individuals need social interactions in order for learning to take place. His theory includes three important social-cognitive processes:

1. The zone of proximal development (see Chapters 2 and 4) is the difference between what a student can accomplish with help, under the guidance of or in collaboration with the teacher, a peer, or a parent, and what he or she can do alone without help.
2. Movement from interpersonal to intrapersonal knowledge involves moving from understanding concepts developed between two or more people interacting to how these concepts get internalized through the use of internalized speech.
3. Transition from implicit rules to explicit rules is moving from a behavior that is based on events remembered by the children to actually taking a role in the play behavior and playing fairly.

According to Vygotsky (1962) and other researchers who have studied cognitive development, a variety of intellectual skills are enhanced during symbolic or dramatic play. Make-believe helps children understand the objects they depict in their dramatic play. Objects used in symbolic play represent ideas and situations. Vygotsky (1967, 1978) noted that these objects support children's development of thought.

## HOW CAN TEACHERS USE PLAY TO HELP CHILDREN LEARN AND DEVELOP?

Teachers can help children learn through the process of play by planning and organizing learning areas. It has been documented that learning areas assist children in the development of socioemotional, cognitive, and physical growth (Shiple, 2007). Learning areas provide children with the opportunity to explore and experience feelings and cognitive tasks while using motor skills that are crucial later in life (Shiple, 2007). See Table 10.3 for the kinds of practices teachers can be involved in; for example, if the teacher is doing a unit project on the ocean, having sand and water play is a great way for children to become familiar with aspects of the ocean. When planning the creation of centers, teachers should consider the following:

1. Determine developmental goals and objectives.
2. Know principles of learning and children's learning styles.
3. Design and set up learning centers.
4. Evaluate the learning environment.

## Adapting Play to Individual Learners

As we have seen, play fosters children's development; this idea is no different for children with disabilities. More children with disabilities will have access to the mainstream classroom due to



Providing a variety of toys and opportunities for children to play with them will assist with their creativity.

**Table 10.3****Procedures to Follow as an Early Childhood Teacher**

1. Children should be free to choose their own play experiences.
2. The environment should offer play alternatives that are meaningful and accessible to children.
3. Play experiences should be based on objectives derived from observations of children in order to facilitate developmental progress from their present level to a higher level of development.
4. Teachers should plan a range of play experiences from the simple to the complex and begin with very concrete learning challenges in which the concepts or skills to be mastered are clear and observable to the learner.
5. A balance of structured and open-ended activities should be provided.
6. A balance of individual and group activities to allow for children's unique learning styles should be provided.
7. Equipment, materials, and supplies should be placed in well-defined learning centers that ensure children's receipt of messages from their environment about what they should be doing and learning in each learning center.

Source: Adapted from Shipley, D. (2007).

mandated inclusion policies and the implementation of less restrictive environments, so chances are that teachers will have a child in their classroom with special needs (see Chapter 7). When children with disabilities enter the classroom, the teacher should be aware that these children might require more time, instruction, or help to be included in the classroom. It is important and helpful for the teacher to be well informed about the specific disability of a child and how to adapt play appropriately.

Children who have difficulty with learning, memory, or problem solving can gain a great deal through the practice of play. For example, if a teacher facilitates the right opportunities, these children can benefit from such activities as classifying, identifying, sorting, matching, problem solving, seriation, number concepts, and spatial concepts (Wasserman, 2000). Similarly, children with communication problems can become more skilled at using signs in their play, and they improve their ability to communicate in increasingly complex ways. Play enhances the developmental process by providing situations to practice symbols that result in language. For example, symbolic play (e.g., playing to be “Mommy” by making lunch) is important for later development because it is an indicator of the development of representational thought, which helps stimulate children's language comprehension skills.

The idea that “children learn through play” has directed early childhood teachers for decades. This simple phrase provides the rationale for several models of early childhood programs and different theoretical approaches. It has also become a way of explaining almost anything that a professional early childhood teacher does to keep children occupied in the classroom. The emphasis on learning through play will continue. The fact that children are active learners who construct their own knowledge and understanding of the world through play experiences has become a cornerstone of professional early childhood educators. As a professional educator, you must be increasingly ready to give children more of the responsibility for their own learning.