



## CHAPTER 8

# Adapting Activities for Play and Therapy

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After reading this chapter, the reader will:

- Define and compare the terms *adaptation*, *modification*, and *grading* in relation to play.
- Articulate the distinct importance of both modifying and grading play activities in occupational therapy.
- Determine modifications and grading for various play demands for different clients.
- Differentiate play adaptations by frames of reference in occupational therapy.
- Select and implement adaptations fluidly to promote play based on professional reasoning.
- Adapt activities that the child is experiencing predominantly as “work” into more playful activities.

*A child loves his play, not because it's easy, but because it's hard.*

—Benjamin Spock

An activity often must be adapted if it is to be both play and the right fit for the child. Perhaps the child is not experiencing the measure of success necessary to continue without giving up. Or, perhaps the activity is so easy that there is no therapeutic benefit for the child. Maybe the therapist is still getting to know the child. Even experienced practitioners and children sometimes choose activities that end up being unsuitable as initially planned. Often the goals of therapy are *work* for the child, necessary activities the child needs to do but does not want to do. When these situations arise, occupational therapy practitioners combine activity analysis with their knowledge of the child to make targeted decisions on how best to alter the activity so that the child wants to participate and makes progress. To maintain the highest level of motivation and therapeutic benefit, therapists constantly adapt to make play just right for each individual.

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## Adapting for Play

Adaptation has endured as an essential quality of occupational therapy (Grajo, Boisselle, & DaLomba, 2018; Marshall, Myers, & Pierce, 2017). Adaptation is viewed as a transformation in and through occupations, enabling greater participation, both as a process and an outcome (Grajo et al., 2018). Occupational therapy practitioners value individuals' ability to adapt to changes such as aging, disability, and environmental factors. Acknowledgment of this human capacity forms the cornerstone for the use of adaptation as a tool of practice.

As an intervention, adaptation refers to changing the activity demands to better suit the person's individual factors and skills under a given circumstance (Marshall et al., 2017). The practitioner utilizes knowledge obtained previously from the activity analysis regarding demands and from the occupational analysis regarding how these demands intersect with the client (as described in Chapter 4). The occupational therapy practitioner adapts components of the

activity based on whether each is a barrier or support for participation, often in collaboration with the child, family, and other team members. The specific function of each adaptation is intrinsic to its use because what is adaptive for one individual may not be adaptive or may even be disruptive for another individual or another context. The intent of adaptation is to decrease barriers and exploit strengths so that a child both can and wants to play. This just right challenge is determined by matching activity demands with the client's abilities and interests so that the child can successfully participate (Ayres, 1972, 2005; Burke, 1977; Mack, Lindquist, & Parham, 1982; Michelman, 1974; Robinson, 1977; Rogers, 1982; Tickle-Degnen & Coster, 1995). Occupational therapists' establishment of a just right challenge has strongly correlated with child engagement (Holland et al., 2018).

When the chosen activity is not within a child's current capabilities to participate, activity adaptation is necessary. Adapting may focus on one individual or multiple individuals within a group. Activity adaptations may be predominantly static in the form of modifications or dynamic in the form of grading, either or both of which may be used for each client.

## Modifying for Play

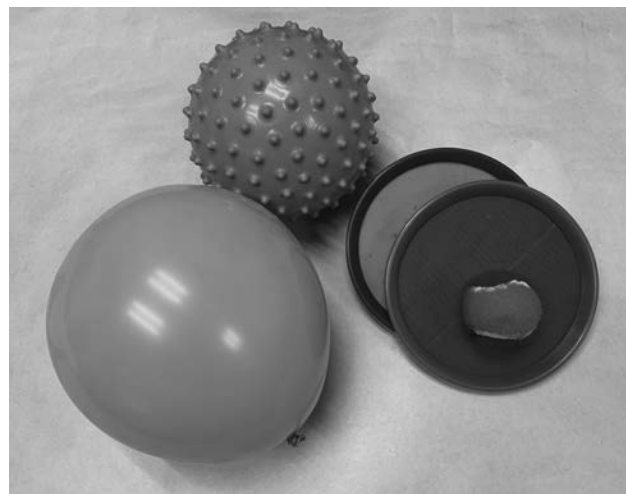
Modifying is a specific type of occupational therapy intervention defined as “finding ways to revise the current context or activity demands to support performance . . . [which includes] compensatory techniques, including enhancing some features to provide cues, or reducing other features to reduce distractibility” according to the Occupational Therapy Practice Framework (AOTA, 2020) and Dunn, McClain, Brown, and Youngstrom (1998, p. 533). Modification of an activity requires altering a demand to allow a client to perform it at all or with less assistance. For example, for a child without any gross grasp who cannot hold a paintbrush to paint unless physically guided, but who has full active range of motion in the upper extremity, the activity of painting can be modified by placing a strap on the paintbrush. This modification removes the needs for grasp and assistance, allowing the child to participate by painting at an easel with his or her peers.

The occupational therapy practitioner modifies activities by considering alternative ways of how the activity could be performed in order to enable the child to participate (Spitzer, 2020). A modification is designed to be a relatively fixed or static element so that it can enable continued participation of the client, often in the absence of the therapist; however, ongoing monitoring and adjustments of modifications may be needed over

time to determine a workable modification and to adjust to a child's development. At a minimum, modifications remove barriers to make it easier for the child or adolescent to access play (see **Figure 8.1**). However, many clients also need modifications that support participation in play.

Modifications may include changes to the environment or the structure or form of the activity. For example, the occupational therapy practitioner might recommend turning off the television and electronic screens to decrease environmental distractors to social play (see Chapter 9 for extensive environmental play modifications). Or, in the case of the highly supported intervention of breaking down activities into steps (Misiuna et al., 2012; Steinbrenner et al., 2020; Wong et al., 2015), a therapist might modify the structure for assembly of an interlocking puzzle by providing a list of steps for the teen to follow. Or, the form may be altered by using adaptive equipment or assistive technology such as providing switch access so a child with a degenerative neuromotor disorder may play with a toy (Deitz & Swinth, 2008; Judge, Floyd, & Wood-Fields, 2010; Verver, Vervloed, & Steenbergen, 2019, 2020; Williams & Matesi, 1988). Many modifications are commercially available through therapy suppliers and toy manufacturers (for example: <https://toyboxtools.hasbro.com/en-us/resources>). However, many modifications must be customized for a specific child or individually determined to make sure the modification is right for a particular client.

Modifications may include adjustments to address client relevance and importance as well as other activity demands (see **Table 8.1** for examples of modifications for different kinds of activity demands). Modifications that balance the client's motivation with the activity's challenge



**Figure 8.1** Object modifications such as a ball with knobs for gripping, a Velcro® mitt, and a balloon (clockwise from top) can increase access for playing ball

Courtesy of Susan L. Spitzer.

promote the just right challenge (Burke, 1977). In this way, modifications can also maximize client strengths to compensate (O'Brien & Soloman, 2013). To promote play and the child's intrinsic drive, the occupational therapy practitioner avoids stopping the child or saying no to his or her ideas, even when those ideas appear inconvenient or counter to therapeutic goals. Instead, the therapist immediately thinks of *how* to do what the child wants to do, how to modify the activity to make it happen while maintaining therapeutic benefit, as seen in the case of Benjamin (see **Practice Example 8.1**).

## Grading for Play

Grading is used extensively as a core foundational tool in occupational therapy (Breines, 1986). Grading is the dynamic process of making demands easier or more difficult based on the client's performance so that the activity promotes progressive improvement in client performance, abilities, or skills. For example, grading the activity of throwing for a child could include gradually changing the distance or size of the target (see **Figure 8.2**). Grading play can mean the difference between a child feeling bored when an activity is too easy or frustrated when it is too hard, and a child being able to move forward and try a different activity or a different version of the current activity.

Grading often happens multiple times during an occupational therapy session, in the moment of

activity performance to sustain the just right challenge (Ayres, 1979, 2005; O'Brien & Soloman, 2013). Activities are made easy enough for the client to participate in them and then gradually more difficult to build skills. The initial grading allows the child to gain practice and adapt to the activity, and the ongoing grading maximizes the therapeutic aspects of activities. As the child gains skills, activity supports are faded and challenges increased.

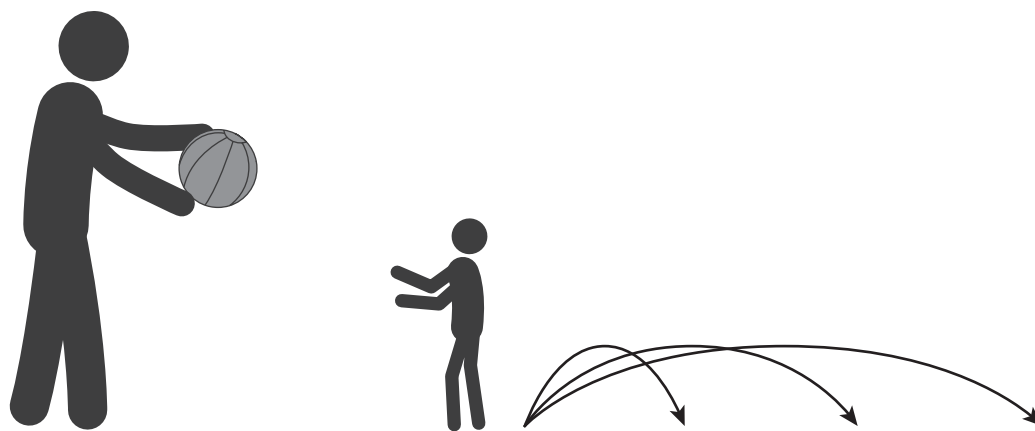
Activities can be graded to increase or decrease the challenge level in a variety of ways (Breines, 1986; Marshall et al., 2017; Neistadt et al., 1993; Piersol, 2014; Price & Miner, 2007). Selecting which way(s) to grade an activity for an individual should be based on the potential to create a successful challenge that promotes the child's skills. This just right challenge emerges from matching activity demands that address a client's needs with the client's abilities (Ayres, 1972, 2005; Burke, 1977; Mack, Lindquist, & Parham, 1982; Rogers, 1982; Tickle-Degnen & Coster, 1995). The therapist weighs various options and decides which activity demand(s) should be graded in order to meet therapeutic goals for an individual child's play (see **Table 8.1** for examples). The practitioner also determines the degree to which each demand is graded both in terms of incremental amount and frequency that an individual child needs and can tolerate. Similar acts of grading may occur at a faster or slower pace for different children.

### **PRACTICE EXAMPLE 8.1 Benjamin and Hospital Bed Modifications**

Benjamin, a teenager, sustained multiple life-threatening injuries in a car accident. He had numerous surgeries and spent an extended stay in the local children's hospital. While in the hospital, he received occupational therapy to (1) increase his endurance for completion of daily activities and (2) regain function of his dominant left upper extremity (UE) for daily activities.

During one session, the occupational therapist brought in items for a board game. Benjamin expressed interest in the game, but just like most sessions, insisted on doing it while lying down in bed because he was tired. His occupational therapist recognized this common compensation for limited endurance, which was counterproductive for therapy because neither therapeutic goal could be addressed. The reasoning had been explained to Benjamin on multiple occasions, and he demonstrated clear memory and understanding of this need. After much coaxing, Benjamin usually acquiesced reluctantly. On this day, Benjamin was especially tired and resistant. The therapist was torn as to how to save the session and engage Benjamin—whether to insist on him sitting up and risk complete refusal or to allow him to lie down, which was counterproductive to his goals and might decrease arousal and visual attention.

Given that neither option was very promising, the occupational therapist began considering how to modify the game to play it lying down in bed, involving Benjamin in this problem solving. Benjamin was surprised at the therapist's own acquiescence in "round one," as they joked about who might win "round two" (the board game). He immediately became more alert and motivated as they problem-solved together how to modify the position of the board for him to reach and see. The board was propped up vertically against the bed rails on the right side so that he would need to reach with his left UE to play. Benjamin was facilitated in adding tape under each game marker so that it could stick to the vertical board. Benjamin was very engaged in the preparations and initiating the game. Shortly after, Benjamin expressed that he did not like playing the game this way and wanted to sit up, which was done for the remainder of the game.



**Figure 8.2** Catch can be graded for improving skill by gradually increasing the distance between players as skill grows

**Table 8.1** Examples of Grading and Modifications for Play

Type of Demand*	Grading to Increase Skills/Function	Modification to Access Participation
Required body functions	<ul style="list-style-type: none"> <li>■ Use toys with less resistance to decrease demand on strength and gradually increase resistance to increase demand on strength.</li> <li>■ Increase the number of direct cues for a step to decrease demands for executive function; then gradually decrease the number and/or specificity of cues to increase executive function demands.</li> <li>■ Decrease the sensory stimulation provided by an activity to decrease sensory demands and gradually increase the sensory stimulation to increase the sensory (tolerance/integration) demands.</li> <li>■ Place objects to decrease range of motion needed and gradually adjust placement (direction or distance) to increase range of motion.</li> </ul>	<ul style="list-style-type: none"> <li>■ Increase visual contrast so that a child can trace.</li> <li>■ Add a strap to a paintbrush for a child with involuntary hand movements.</li> <li>■ Add switch adaptations to toys so that a child with limited range of motion and strength may access and play with them independently.</li> <li>■ Reduce auditory and visual distractions.</li> <li>■ Complete an activity in a different position from typical (such as seated) to accommodate for decreased respiratory function.</li> <li>■ Provide supportive or padded seating for comfort.</li> <li>■ Laminate pages of favorite book to prevent them from being torn due to uncontrolled heavy use of force.</li> </ul>
Required body structures	<ul style="list-style-type: none"> <li>■ N/A</li> </ul>	<ul style="list-style-type: none"> <li>■ Change games to be done with one hand, one eye, one foot, or different body parts.</li> <li>■ Alter a bike so it can be pedaled with the arms rather than the legs.</li> </ul>
Objects used and their properties	<ul style="list-style-type: none"> <li>■ Use materials that are lighter to allow lifting and then gradually heavier to challenge strength.</li> <li>■ Use toys that are bigger to aid manipulation or grasp and gradually decrease to challenge fine-motor skills.</li> <li>■ Provide only a few objects at a time, and gradually increase the number to manage at once.</li> <li>■ Gradually increase the number of pieces, decrease the size of pieces, and increase subtly among pieces in a puzzle.</li> </ul>	<ul style="list-style-type: none"> <li>■ String beads on pipe cleaners instead of laces so that a child can play independently.</li> <li>■ Use stamps instead of crayons to create a picture.</li> <li>■ Provide loop scissors to allow a child to participate in a craft activity.</li> </ul>

Type of Demand*	Grading to Increase Skills/Function	Modification to Access Participation
Space demands	<ul style="list-style-type: none"> <li>■ Make a wider and then gradually narrower pathway or remove and then gradually add obstacles to build navigation with a scooter, wheelchair, or bike.</li> <li>■ Place pieces closer for reach and organization, and then gradually increase distance/location (such as in different drawers, shelves, cupboards).</li> </ul>	<ul style="list-style-type: none"> <li>■ Keep favorite toys in a bag on the side of the wheelchair or on lower shelves in the bedroom.</li> <li>■ Remove obstacles to access a play area.</li> <li>■ Add obstacles around a perimeter to create a smaller space to focus play.</li> <li>■ Use signs, masking tape, chalk, furniture, etc. to mark a specific play area.</li> </ul>
Social demands	<ul style="list-style-type: none"> <li>■ Alter communication strategies to be easier (e.g., play game using only gestural/nonverbal cues), then gradually increase the number or type of communication strategies for greater complexity.</li> <li>■ Gradually alter the number of individuals involved in a game (play games in pairs or teams).</li> <li>■ Increase material availability to limit sharing demands and then gradually decrease materials to encourage sharing.</li> </ul>	<ul style="list-style-type: none"> <li>■ Use a communication device during game/activity to aid social interaction.</li> <li>■ Advise peers to use a strategy (such as get close, tap arm, or show toy) to enable the child to attend to and understand the other child.</li> <li>■ Use a turn-taking card to clarify when it is the child's turn vs. another's turn.</li> </ul>
Required actions and performance skills	<ul style="list-style-type: none"> <li>■ Gradually increase the challenge level of manipulative games by altering the manipulation strategy used such as which finger or fingers the child may use, the use of (non)dominant or both hands.</li> <li>■ Increase stability of the surface and use of nonslip materials or rigid objects, then gradually decrease stability by using smooth, slick items to increase precision of motor demands.</li> <li>■ Gradually increase the number and complexity of rules to build performance skills.</li> </ul>	<ul style="list-style-type: none"> <li>■ Use a keyboard (as opposed to writing) to create a story to compensate for poor fine-motor and organizational skills.</li> <li>■ Change the rules of a game to allow increased success or participation.</li> <li>■ Use a wait card to compensate for limited impulse control.</li> <li>■ Use a card holder in a game for a teen with limited bilateral coordination.</li> </ul>
Sequencing and timing	<ul style="list-style-type: none"> <li>■ Decrease and then gradually increase the numbers of steps in a sequence.</li> <li>■ Require the child to determine the steps with increasingly indirect cues.</li> <li>■ Gradually decrease the amount of time allotted to complete a turn, step, or action in play such as by adding a timing criterion.</li> <li>■ Gradually increase the duration of time playing one activity or waiting for a turn.</li> </ul>	<ul style="list-style-type: none"> <li>■ Extend time for play.</li> <li>■ Provide pictures of each step for setting up a game or building.</li> <li>■ Use timer to self-monitor timely completion or prepare for transition in an activity.</li> </ul>
Relevance and importance to client	<ul style="list-style-type: none"> <li>■ Gradually decrease the number or use of child's favorite toys, objects, and play themes to expand the child's interests into other play activities.</li> <li>■ Include objects, actions, and play themes that are increasingly different from the child's interests to expand play repertoire.</li> </ul>	<ul style="list-style-type: none"> <li>■ Include child's favorite toys, objects, themes such as in a game of chase or pretending.</li> </ul>

\*Types of demands are from: AOTA, 2020. The practitioner identifies specific demands based on the activity analysis.

Note: For some demands, modification and grading may be similar; however, the intent of the adaptation and its temporal nature are what identifies it as either a modification or grading. If the primary intent is to allow maximal participation in context for an indefinite period of time, then this static adaptation is a modification. If the primary intent is to promote participation that progressively establishes, improves, or restores client skills and abilities, then this dynamic adaptation is considered grading.



## Professional Reasoning for Adapting Play

Just as professional reasoning is used to select activities (see Chapter 7), it is used similarly to modify and grade activities once selected. Occupational therapy practitioners must select from a range of potential adaptations based on various considerations such as their anticipated impact on occupational performance, their feasibility, and the preferences and priorities of clients, family, and other stakeholders (Rigby, Trentham, & Letts, 2019; Weaver, 2018). Professional reasoning based on professional training is necessary to adapt play in alignment with scientific knowledge and frames of reference and in relation to the evolving dynamics of play.

## Frames of Reference and Adapting Play

The occupational therapy practitioner often makes choices about how to adapt activities for therapeutic benefit according to the theoretical framework of a particular frame of reference. Considerations include the frame of reference's emphasis on modification or grading, on which activity demands to adapt, and on which outcomes of therapy can be expected, as seen in **Table 8.2**. For example, the neurodevelopmental treatment and sensory integration frames of reference place more emphasis on grading motor or sensory demands, with the outcome of intervention being a change in performance skills that leads to a change in participation in a variety of activities (Ayres, 2005; Michielsen,

**Table 8.2** Activity Adaptations for Different Frames of Reference

Frames of Reference	Activity Adaptation Considerations
<b>Acquisition/behavioral</b>	<ul style="list-style-type: none"> <li>■ Modify a new activity for learning by breaking it down into discrete sequenced steps.</li> <li>■ Grade steps of a new activity over time to a larger number or greater complexity.</li> <li>■ Modify environmental supports and barriers, whether antecedents or consequences, to increase the likelihood of positive participation (supports) and decrease the likelihood of participation challenges (barriers).</li> <li>■ Grade positive reinforcers to fade after a task is learned.</li> </ul>
<b>Biomechanical</b>	<ul style="list-style-type: none"> <li>■ Modifications include orthoses and positioning to rest or compensate for physical limitations.</li> <li>■ Grade stretch to increase ROM.</li> <li>■ Grade duration, velocity resistance, and type of muscle contraction to increase strength and endurance.</li> </ul>
<b>Cognitive</b>	<ul style="list-style-type: none"> <li>■ Modification is directed by and occurs with the input of the child as he or she problem-solves strategies.</li> <li>■ Grade process requirements to build a child's skill with making their own modifications and ability to use cognitive strategies.</li> </ul>
<b>Cognitive behavioral</b>	<ul style="list-style-type: none"> <li>■ Grade emotional and cognitive demands to increase a child's positive emotional reactions and motivation (i.e., positive self-talk, anger management, frustration tolerance) to engage in activities.</li> </ul>
<b>Motor learning</b>	<ul style="list-style-type: none"> <li>■ Modify movement constraints to provide active and successful participation in meaningful occupations that provide the child with repeated practice as well as intrinsic and extrinsic feedback.</li> <li>■ Grade movement demands to require increased skill and variable adjustments within an activity.</li> </ul>
<b>Neurodevelopmental treatment</b>	<ul style="list-style-type: none"> <li>■ Grade activities for progressive improvement in the quality of movement to enhance the child's motor and postural skills.</li> </ul>
<b>Sensory integration</b>	<ul style="list-style-type: none"> <li>■ Grade combinations of sensory input and motor demands to provide the right level of challenge to enable the child to make an adaptive (more complex) response.</li> <li>■ Recommend activity modification of sensory input in daily life to promote a healthy match for the child.</li> </ul>

## PRACTICE EXAMPLE 8.2 Malia and Recess Adaptations

Malia was a second grader with Down syndrome who was fully included at school, where she received occupational therapy. One of her goals was to play cooperatively at recess. She often asked about recess and playing with her friends. She routinely went to the jump rope, hand ball, and four-square courts at recess. She stood in line for approximately 30 seconds and then went onto the court and tried to play, interrupting the game and annoying the other children, which often required adult intervention. The only time she waited longer was when she was standing next to her friend Jane, who held her hand and stroked her arm and back. When Malia did get a turn, she immediately missed the rope or ball, then yelled, "This is stupid," and took or kicked the ball or rope, bumping into children as she left, again disrupting play for the other children. After playing a game, she would immediately lie down. She did not consistently play—sometimes she just spent the recess either lying down, walking slowly while leaning on the fence, or sitting down by herself. The occupational therapy evaluation identified underlying challenges in the following areas: endurance, postural control, motor skills, process skills, emotional regulation, social interaction skills, tactile and proprioceptive hyporesponsivity, and problematic recess routines. The team understood that Malia's motor skills were common for children with Down syndrome; however, they were concerned that many of Malia's peers had started to say they did not want to play with her. Malia's occupational therapist considered possible adaptations based on different frames of reference as indicated in **Table 8.3**.

Vaughan-Graham, Holland, Magri, & Suzuki, 2019). In contrast, a cognitive frame of reference uses modification more extensively, specifically as a cognitive strategy for the child to apply (Chapparo, 2010; Dawson, McEwen, & Polatajko, 2017). When sensory integration and acquisition frames of reference are combined such as in school-based practice, both grading and modification may be used (AOTA,

2015). New factors may emerge necessitating adjustment of the frame(s) of reference to accommodate this clinical evidence (Spitzer, 2020). Knowing the tenets of the chosen frames of reference will support the reasoning needed to decide which frame(s) of reference to select and to guide decisions regarding which aspects of the activity are graded or modified for therapeutic benefit (see **Practice Example 8.2**).

**Table 8.3** Examples of Play Adaptations for Malia Based on Different Frames of Reference

Frames of Reference	Play Adaptations
<b>Acquisition/behavioral</b>	<ul style="list-style-type: none"> <li>■ Modify playground games by breaking them down into discrete sequenced steps with numbers and pictures to follow (on a list or keyring), include step for what to do when her turn is over.</li> <li>■ Modify rules for her, requiring her to select the game with the smallest line or follow Jane.</li> <li>■ Provide frequent happy faces drawn as a positive reinforcer for each small success until she is able to follow all the steps for a game. Then reduce the frequency of happy faces.</li> </ul>
<b>Biomechanical</b>	<ul style="list-style-type: none"> <li>■ Grade jumping and ball activities for submaximal exertion and gradual increases in duration/repetition to increase endurance.</li> </ul>
<b>Cognitive</b>	<ul style="list-style-type: none"> <li>■ Grade activities and information to help Malia understand the consequences of her actions such selecting activities because different activities may have a shorter wait, be more fun/successful.</li> <li>■ Grade activities to help her recognize and follow the steps, while providing choices as a modification to help her remember the steps.</li> <li>■ Grade just enough information to help her identify what and how to adjust her body to improve motor performance.</li> <li>■ Modify activities with a visual cue card about problem-solving different choices for handling anger (that is developed together with Malia) such as the following response choices: "Kick—no play. Yell—no play. Grab—no play. Play again. Play something different."</li> </ul>

(continues)

**Table 8.3** Examples of Play Adaptations for Malia Based on Different Frames of Reference *(continued)*

Frames of Reference	Play Adaptations
<b>Cognitive behavioral</b>	<ul style="list-style-type: none"> <li>■ Grade play activities with gradual increases in degree/frequency of errors (mistakes); with gradual increases in waiting time; with gradual decreases in preparation for missing, making errors, losing—starting with play activities that are a strength for her and later applying to challenging motor play.</li> <li>■ Modify the activities by using a visual therapeutic script at the beginning to prepare and remind her to cognitively alter her behavior such as “Playing games can be tricky. Everybody makes mistakes sometimes. That’s ok. We can try again.” Or “My friends like it when I wait. I can watch my friends when I wait.”</li> </ul>
<b>Motor learning</b>	<ul style="list-style-type: none"> <li>■ Modify jump rope by placing a piece of masking piece or chalk mark as a visual cue of where to stand as she learns how to jump rope.</li> <li>■ Grade jump-rope demands by jumping initially over a stable rope laying on the ground, next a rope that is turned and kept on the ground until she jumps, then a slow-moving rope, and finally a gradually faster rope.</li> <li>■ Modify ball activities by marking a line on the handball court wall for aiming; by substituting a balloon, soft grippable ball, large bean bag, hook-and-loop mitts.</li> <li>■ Grade ball activities by throwing or bouncing the ball directly at her hands, gradually further from her center of gravity, and eventually requiring her to move her body to an increasing distance, and with gradually decreasing predictability.</li> <li>■ Grade speed to gradually increase speed of the ball.</li> </ul>
<b>Neurodevelopmental treatment</b>	<ul style="list-style-type: none"> <li>■ Grade play activities for gradually increased postural demands.</li> </ul>
<b>Sensory integration</b>	<ul style="list-style-type: none"> <li>■ Modify recess with use of self-tickles on her arms to increase body awareness and positive state during recess.</li> <li>■ Modify activities with heavy materials to increase proprioceptive feedback.</li> <li>■ Grade demands for gradually refined use of force and tactile discrimination.</li> <li>■ Modify jump rope by placing a piece of masking tape or chalk mark as a visual cue of where to stand to compensate for decreased somatosensation for body awareness in relation to the jump rope.</li> </ul>

## Integrating Layers of Reasoning for Adapting Play

An occupational therapy practitioner utilizes various forms of clinical reasoning based on professional training to adapt play. Scientific, pragmatic, interactive, narrative, and ethical reasoning are essential in determining adaptations. Each was described in the prior chapter in relation to activity selection, and here are applied to decisions regarding adaptation.

### Scientific Reasoning

Scientific reasoning enables us to apply available scientific evidence in selecting adaptations. The occupational therapy practitioner utilizes modifications and grading, which are hypothesized to improve an individual child’s participation based on available scientific evidence. For example, therapists commonly break down activities into steps and use visual strategies to modify activities for children with ASD because there is strong evidence to support these modifications will be effective (Missiuna et al., 2012; Steinbrenner et al., 2020; Wong et al., 2015).

### Pragmatic Reasoning

Pragmatic considerations affect the occupational therapy practitioner’s ability to adapt activities. Available materials, space, time, and other contextual factors influence which aspects of an activity can be changed and how. Theoretically, any factors can be adapted; however, some factors may be more feasible than others. Necessary materials or permission for an adaptation may not be present at the moment, and the therapist may need to determine the value and timeliness of obtaining them. Although at times a challenge, meeting pragmatic demands is one of the most rewarding creative endeavors in which occupational therapy practitioners engage and is highlighted in Chapter 9.

### Interactive and Narrative Reasoning

Interactive and narrative reasoning are at the heart of establishing meaningful and playful interactions and activities for pediatric clients. Through these types of reasoning, play schemes and themes are developed



and consistently adapted to establish and maintain a playful and motivating environment. This reasoning enables therapists to understand the daily routines and situations that the child may encounter and tailor therapeutic activities that best address the demands of those situations. The therapist suggests adaptations that suit the family, school, and cultural contexts. This reasoning helps the therapist grade activities playfully because he or she knows the child and family on an individually meaningful level. Grading activities in a playful manner contributes to a therapeutic narrative where the child is engaged as a successful player.

Interactive and narrative reasoning are relied upon heavily when managing the important social-emotional efficacy aspect of adapting an activity. Therapeutic use of self (see Chapter 6) is an important tool in this process. For example, an occupational therapist may take the blame for making an activity too easy or too hard. Statements like, “Oh my, I put that way too high, didn’t I? I can barely reach it. Let me fix it and then we can try again” or “Wow, I made that as wide as a river, who can jump a whole river? Not me. I better make it smaller,” can go a long way toward framing a child’s perspective positively. Competition, if a child can handle it, can be useful when upgrading an activity. Interactive and narrative reasoning provide important information about what play themes may be fun and meaningful to the child, which can be used to make the level easier or harder or easing any anxiety the child may feel if he or she cannot accomplish a task as it was originally presented.

### **Ethical Reasoning**

Ethical reasoning allows us to consider what will benefit the child and pose the least risk. Ethical reasoning is important when considering adaptation. The occupational therapist must weigh the value of different adaptations on occupational performance. For example, the therapist must consider whether to focus on the benefit of modifying an activity for immediate participation in play or the benefit of grading to build long-term adaptive skills to support a wider range of play. While both may be included, often one is emphasized at a time. If a child cannot participate in an activity without modifications, there may be significant developmental, social, and emotional risks of waiting for skills to develop. It is in these situations that we as occupational therapy practitioners can play an important role in using our expertise in activity analysis to find ways to modify aspects of the activity so that the child may engage and participate in it. Modifications may involve ethical considerations related to multiple stakeholders who are often

involved in modifications such as rearranging items so that toys are stored on an accessible-level shelf or asking a family member or peer to be a playmate in a specific game. Some individuals are happy to help, and others find it burdensome. Weighing the benefits and risks of implementing or not implementing different modifications for the occupations of the child and others is essential to determine how strongly we should express and advocate for specific measures or present multiple options from which to select.

### **Determining Whether to Modify or Grade**

Professional reasoning determines whether modifications or grading are selected. The occupational therapist considers the relationship of adaptations to an individual child’s needs and the pragmatics of implementing those adaptations. Modifications that can be made easily given the social and physical environment are often selected to yield immediate increases in participation that can be carried over in the therapist’s absence. Modifications are typically more compensatory in nature because they focus on adapting factors that are predominately external to the individual; but they also may build skills through allowing practice with new play activities over time. Nonetheless, this means that modifications often need to be changed as the child develops physically, emotionally, mentally, or spiritually and as the child needs or wants to engage in new play activities or in different physical and social environments. In contrast, grading tends to take more time to change performance because it primarily targets developing or restoring internal client factors; and grading requires a clinical judgment that reasonable progress in skills and abilities is achievable. Grading requires more ongoing effort from both the practitioner and client. Because grading is used for skill building, often these skills are adaptable across multiple activities and environments and provide a foundation for future skill development. Balancing the short-term and long-term needs given the constraints and opportunities within practice involves a combination of different forms of professional reasoning as seen in **Practice Example 8.3**.

### **Adapting in Unpredictable Moments to Promote Play**

Occupational therapy is a dynamic process that entails ongoing assessment, analysis, and adaptation on a moment-by-moment basis, especially when focused on play. Preparation, attentive observations, and flexibility enable the therapist to be ready for

**PRACTICE EXAMPLE 8.3 Malia: Professional Reasoning for Selecting Recess Adaptations**

In order to select from the various possible adaptations identified for Malia (as listed in **Table 8.3**), the occupational therapist used professional reasoning to determine priorities given the school setting as well as her short-term and long-term needs. Clearly, the physical and sensory demands for Malia's play were critical because she did not have the skills to meet these demands. Pragmatically, it would be hard to modify these specific motor and social demands in a school setting because so many different adults and children would have to buy into the changes. At the same time, grading motor skills, postural control, sensory processing, and postural control would take time to yield results. Even the process skills might take longer in this case, given Malia's cognitive functioning. Interactive reasoning highlighted that recess was more work than play for Malia despite her having enough interest and knowledge to attempt the activities. The emerging narrative of disruptive behavior drove the therapist ethically to identify which modifications could be implemented immediately on the playground to meet these pressing needs. As a result, the occupational therapist opted to use cognitive and cognitive behavioral frames of reference to select modifications for process skills that offered positive social play outcomes in a relatively short period of time while safeguarding a supportive social context. Later, Malia's motor skills could be addressed to build her enjoyment and motivation to sustain engagement in recess play.

swift clinical analysis and action. The practitioner prepares by completing activity analyses beforehand to anticipate problem areas; maintaining a clear picture of the child's overall strengths, needs, and goals; and having a sound knowledge of play. Although the intervention plan is a guide for therapy, a variety of unanticipated events may occur in each treatment session. The therapist cannot predict the child's exact response to an activity or the opportunities that may emerge. Activities that are too hard can lead to frustration, anger, tantrums, and refusals to continue to participate. Activities that are too easy can lead to boredom, wandering attention, and eventual refusal to participate. Even a previously successful activity

can become problematic, sometimes within the same session. The occupational therapy practitioner stays flexible to understand changes in the child's emotional state, needs, and desires and to carefully alter activities accordingly to continually motivate the child to engage and meet the next challenge. The actual methods for achieving therapy goals must be adaptable on a moment-by-moment basis to match where the child is at that point in time. Continual professional reasoning equips the occupational therapy practitioner to make immediate changes during an activity based in response to the real-time performance and reactions of the child (Spitzer, 2020), as illustrated in **Practice Example 8.4**.

**PRACTICE EXAMPLE 8.4 Adjusting Adaptations in the Moment for Malia**

Malia's occupational therapist also worked with her directly to build coordination and timing skills for successful participation in recess activities. The occupational therapist selected a motor learning frame of reference because of its focus on the skills that were judged most essential in building Malia's success.

During one session, the therapist suggested a game of balloon volley. Malia expressed excitement but constantly turned away and wandered off from the play area. The occupational therapist redirected Malia to return, but this did not change Malia's behavior, despite several repetitions. Given Malia's interest and knowledge of how to do the activity, the therapist considered what adaptation could be made so that Malia could play this activity and benefit therapeutically. The therapist mentally compared Malia's immediate performance with the evaluation findings and an activity analysis of balloon volley to create an occupational analysis and hypothesized that the most likely reason for Malia's leaving was poor sensory processing. Therefore, informed by a sensory integration frame of reference, the therapist placed a piece of masking tape to compensate as a visual modification for Malia to see where to stand. Malia immediately stayed on or near the masking tape X, which marked the treasure spot, ready to block the pirate balloon and safeguard the imagined "treasure."

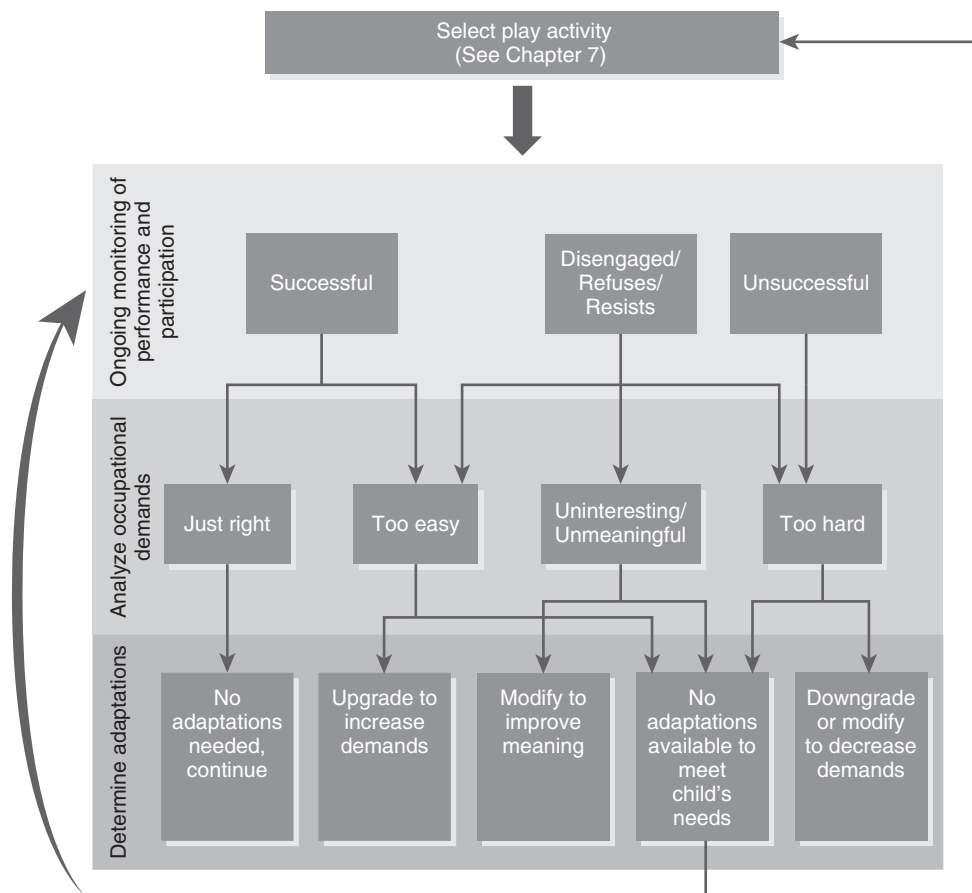
The occupational therapist selected a red balloon as a modification. The balloon decreased the motor demands of volleyball because it moved slower and required less force to hit than a ball. The red color made it easier to see and track against the visual background of the playground. The therapist graded the activity by keeping a short distance and targeting the balloon directly at Malia's hands. However, no matter how much the therapist downgraded the distance, Malia could not hit the balloon toward the therapist, as she relied on a gross shoulder flexion motion causing the balloon to go over her head and behind her. Despite guidance and explanation, Malia continued to miss the balloon and was becoming increasingly frustrated. The therapist knew that this activity was

**PRACTICE EXAMPLE 8.4** Adjusting Adaptations in the Moment for Malia*(continued)*

neither play nor therapeutic; more adaptations were needed immediately in order to enable Malia to experience success before she decided to stop engaging altogether. Because the therapist wanted to facilitate more refined distal movements of her upper extremities, wanted to ensure success, and was concerned about Malia's fatigue, the therapist identified a modification that would address all these factors and suggested that they change to protect a different "treasure chest." This time, the therapist moved the masking tape X and had Malia sit across from her at a table and push the balloon to roll across the table. Although the masking tape was no longer needed as a visual modification, it was used to maintain play in the activity. The table constrained Malia's movements to be more successful, the rolling balloon was even easier to target than in the air, and the shift helped reenergize Malia's motivation to play. As Malia gained skill with this movement, the therapist gradually upgraded the activity by raising the distance of the balloon over the table. Malia was so excited with her success that she requested table balloon again next session, which was later upgraded by tying the balloon to the monkey bars for a constrained volleying before returning to the original activity.

As shown in **Figure 8.3**, once either the child or therapist has selected a play activity, the therapist continually attends to the child's performance to ascertain the child's level of participation. The occupational therapy practitioner skillfully observes the child's reactions to recognize both challenges and possibilities that emerge. The child's performance is analyzed in comparison with the activity demands to mentally

update the occupational analysis. If the child is participating successfully and the demands are just right for sustaining play and meeting therapeutic goals, then the therapist need not intervene while continuing to monitor for changes in participation. If the child is participating successfully but the demands are inadequate for addressing therapeutic needs, then the therapist will need to upgrade activity demands to address



**Figure 8.3** The Professional Reasoning Process for Adapting Play. After a play activity is selected, the occupational therapy practitioner continuously monitors the child's occupational performance. Based on these observations, the therapist assesses relevant demands to decide if and which adaptations are needed or if another activity selection is indicated.

therapeutic goals. The therapist considers what aspects of the activity are too easy for the child, and how the activity can be made slightly more difficult to create an attainable challenge. The child may be having a very positive day and may be very agreeable and more playful than usual and be ready for increased demands.

If the child is unsuccessful or not participating, then the therapist will need to identify the mismatch in activity demands for the client based on the occupational analysis. The child may dislike all aspects or some part of the activity, and the therapist must modify the activity to ensure the demands are personally relevant and important enough to be experienced as play by the child. If a child is not participating because the activity demands are inadequate, then the therapist will need to upgrade the demands to engage the child's interest and motivation.

Commonly when a child is unsuccessful or not participating, the activity demands are too difficult. The child may be having a challenging day and may be tired, frustrated, or agitated. A playmate may be sick; a favorite toy may be missing, broken, or used by another; or construction workers may be creating different sounds, smells, sights, and dust. These instances are difficult to anticipate, but the therapist's skill during these moments can often "make or break" an intervention session. In this case, the therapist needs to determine which features are of immediate concern in disrupting participation in order to quickly adapt them to enable immediate ease of participation. What aspects of the environment can be adjusted? What aspects of the child's skills and client factors are currently hindering performance, and how can the activity be made easier to allow success? What aspects of the task are amenable to grading, and are the necessary materials and skills present? The therapist will have to judge how much to downgrade demands to ensure or gain client participation. More significant downgrading may be necessary for a client who is unengaged than for one who is participating unsuccessfully. When a client is not participating, it is often necessary to target those demands that increase clarity of what and how to do the activity to ensure the child understands what the activity offers and how to begin. If the activity cannot be graded and modified adequately, then the therapist must consider alternative activities or environments in which to engage the child.

### **Recognizing and Extending Opportunities for Play**

In-the-moment professional reasoning enables the occupational therapy practitioner to promote new

opportunities for play. A therapist cannot know everything, past and evolving, that is happening in a client's life. Therefore, the therapist must be open to new information, skills, and interests that provide new options for intervention and play.

By having a clear vision of what play is and focusing on the child's overall goals rather than just a specific planned activity, the occupational therapy practitioner is poised to adapt activities during the session to be playlike. Hints of play may occur briefly and unexpectedly, and the occupational therapy practitioner must be ready to seize these opportunities. It may be a comment, a sound, or a movement (Spitzer, 2008). It may be the first time the child does something new or more complicated (even if by chance). The child may merely glance at a person or object, or even suggest an idea. The therapist, then, can scaffold the child's play by grading just enough guidance or assistance for the child to initiate or continue a play activity (Baranek, Reinhartsen, & Wannamaker, 2001). If play is the goal, then to the greatest extent possible, the occupational therapy practitioner places the child's input foremost and then determines *how* to adapt to make it happen in the moment, as illustrated in the case of Thomas (see **Practice Example 8.5**).

## **Adapting Work to Become Play**

One of the fortes of occupational therapy practice is the creative process of using a child's personal interest as a strength to change work into play. Not all of life is play, and not all of pediatric occupational therapy is play. The work involved in self-care, school work, and even friendships can be so important for a child. Children with disabilities often find a range of activities difficult, challenging, or otherwise frustrating. Current best practice in occupational therapy is to employ skill training and therapeutic practice within the context of occupations (Cahill & Beisbeir, 2020). Yet, often pediatric clients avoid participating in the very types of activities that would be most therapeutic for them. This complication is at the crux of why they need play-based occupational therapy. When addressing work activities, occupational therapy practitioners who have a strong understanding and valuing of play strive to move specific challenging activities on the continuum from work toward play. Although true play as occupation is not always achieved, adding play elements can still benefit a client's motivation, well-being, and participation. Play as a modality can make therapeutic work more playlike (see **Figure 8.4**). After

### PRACTICE EXAMPLE 8.5 Thomas and an Unexpected Play Opportunity

Thomas was a bright first grader with ASD. He loved school work and preferred to do workbooks and read in his leisure time. He was receiving occupational therapy to increase his play skills, praxis, and postural control to engage in a variety of leisure activities, especially with other children. He preferred play themes related to categories of knowledge and information such as animals from different parts of the world along with their habitats and details of their behavior. He was not interested in pretend games of being the animals or in various topics in which his classmates were interested. He always read books at the beginning and end of each session in the waiting room. He often asked the therapist to read a book to him. She usually redirected him through such comments as “it is time to play.” Reading was not a goal of therapy and seemed to be a detractor from therapy.

On one day when Thomas was a little more insistent, asking to take the book into the therapy room, his occupational therapist agreed to the request as long as he stood on a balance cushion to read it, and he agreed. When he finished, he put the book down and told her that he had another book to read, and before she could respond, he immediately held his hands together like a book and began a long stream of memorized words about a Spider-Man story. As soon as he paused, the occupational therapist offered, “Let’s play Spider-Man!” “Okay,” said Thomas. The occupational therapist stated that Thomas would *be* Spider-Man and began asking Thomas who the “bad guy, villains” were. Thomas gave her some names. They set up targets to be these named villains, and Thomas threw bean bag “spider-webs” at them with excitement at getting the bad guys. Thomas had accepted the Spider-Man role and expanded his play because his occupational therapist was flexible and adapted to Thomas’s needs and desires in the moment.



**Figure 8.4** The use of a preferred play interest adapts the work of writing into play such as in the case of driving a toy car in shaving cream to form letters.

Courtesy of David A. Morales.

all, research indicates that complete free choice is not necessary for children to experience an activity as play (King & Howard, 2014). There is moderate evidence to support use of play to address mental health, behavior, and social participation concerns of children and youth (Cahill, Egan, & Seber, 2020). Several studies have found play to be effective for increasing motor and other functional skills (Case-Smith, 2000; Case-Smith et al., 2013; Sakemiller & Nelson, 1998; Sparling, Walker, & Singdahlsen, 1984). Preliminary research has found that the use of play in therapy may increase the effectiveness of therapy for self-care and participation (McCoy et al., 2020). Without play, the

child can be resistive and even oppositional, but when work is transformed into play by a skillful therapist, it seems natural and playful. What a child wants to do and needs to do, coalesce.

Creating playful activities emanates from knowledge and professional reasoning. Occupational therapy practitioners transform work into play primarily by modifying features of the activity to increase client relevance and importance. The therapist must possess a strong knowledge of both activity analysis and play, in addition to knowledge of the child. Based on professional training, the occupational therapy practitioner conducts an occupational analysis and ongoing assessment that equip the therapist to create playful work activities. The therapist compares what the child likes (materials, themes) with what the child needs to do and weighs alternative possibilities of how the activity can be done (see **Appendix 8.1** for a worksheet to facilitate this process). The occupational therapy practitioner then combines elements of wants and needs into a unique therapeutic activity that the child enjoys. Interests are embedded into the work activity so that the activity becomes appealing and occupational (Kuhaneck, Spitzer, & Miller, 2010; Munier, Myers, & Pierce, 2008; Spitzer, 2008, 2010, 2017; Tomcheck & Koenig, 2016). The work activity is reframed into a play activity (Spitzer, 2003, 2004, 2008). In this way, the child engages in work that feels like play (D’Arrigo, Copley, Poulsen, & Ziviani, 2020). When children with and without disabilities participate in activities in which they can have fun and feel success with challenges, they report liking these activities (Miller & Kuhaneck, 2008), and



they participate more (Heah, Case, McGuire, & Law, 2007). Research indicates that incorporating personal interests increases participation even in less-preferred activities for children with ASD (Gunn & Delafield-Butt, 2015; Leaf et al., 2012). Furthermore, several studies have found that incorporating personal interests is an effective intervention for improving skills for children and adolescents with ASD, including motor skills and school work (Carnahan, Musti-Rao, & Bailey, 2008; De Vries et al., 2015; Koegel, Singh, & Koegel, 2010; Kryzak & Jones, 2014; Lanou, Hough, & Powell, 2012; Winters-Messiers, 2007). By modifying the form of an activity with interests, occupational therapy practitioners can change the activity's meaning to be more playlike or create new play activities.

## Infusing Play into ADLs

As children develop, they are expected to become more independent in activities of daily living (ADLs) and to tolerate these activities as a part of basic hygiene and as members of their social communities. Children may view self-care differently from adults and in diverse individual ways based on their own experiences of doing self-care with regard to social and physical contexts, perceived skill, and others' expectations (Chapparo & Hooper, 2005). For children with disabilities, many self-care activities may be perceived as work. The activities may be physically difficult, cognitively too demanding, or uncomfortable or painful because

of sensory sensitivities. Occupational therapy practitioners may work on self-care skills or underlying abilities (motor control, bilateral coordination, sensory modulation, etc.) or make modifications that make self-care easier. A playful approach of adapting self-care activities into play can also be used to build skills, to grade the therapeutic challenge, and to increase the child's motivation to participate in therapy and in daily life. In this way, self-care intervention can also be tailored for individual child meaning (Chapparo & Hooper, 2005). Two studies have found toy and pretend play to be an effective modality for increasing mealtime participation for children with ASD (Ausderau, St. John, Kwaterski, Nieuwenhuis, & Bradley, 2019; Muesbeck, St. John, Kant, & Ausderau, 2018).

Dressing, toileting, and bathing cases are presented to help the reader visualize how play might be used in therapeutic sessions related to ADLs (see **Practice Examples 8.6–8.8**). Other ways of making self-care playful include dressing weighted animals and dolls, performing self-care routines with dolls or stuffed animals, helping a younger sibling with self-care, using a knife and fork to cut French fries or other unusual items, embedding songs in self-care (Kern, Wakeford, & Aldridge, 2007), playing button bingo (Stern, 2013), “tying-up” people or toys to practice tying shoelaces, tying string “legs” onto a paper octopus body, tying shoelaces in steps with a pirate story (Steese, 2009), and tying bows on a doll's hair or “gifts.”

### **PRACTICE EXAMPLE 8.6 Eastlyn's Dressing, Modified and Graded for Play**

Eastlyn was a 4-year-old with ASD. She had been receiving occupational therapy for a few months and was making consistent progress. Her mother asked the occupational therapist for help getting Eastlyn ready for an upcoming family trip to snow country. Her mother was concerned that her daughter would not be able to participate because she had not been able to get Eastlyn to tolerate wearing even socks or a jacket. Eastlyn also refused all other cold-weather clothes such as boots, mittens, heavy pants, and hat. The occupational therapist identified that Eastlyn's resistance was due primarily to her tactile hyperreactivity. The new clothes also required different motor skills than her familiar clothes with which she was independent. This meant she would have to follow directions more in order to build new skills with these new clothes. This was also a challenge because she really liked her routines and structure for doing things in the same way. This mismatch between what she needed to do and her abilities and interests was creating an experience of work for her and thus refusal. If Eastlyn could not tolerate appropriate clothing, given the cold climate for their vacation, her health would be jeopardized, or she would have to be inside all day with one parent while her brothers played outside with the other parent.

Eastlyn's mother wanted her to be included as part of the family. In preparation, her mother repeatedly brought out all the cold-weather clothes and had the whole family dress up, but Eastlyn was the only one to resist. It was getting closer to the trip, and Eastlyn was not getting any more comfortable with cold-weather dressing. The occupational therapist asked Eastlyn's mother to bring these cold-weather clothes to therapy. The occupational therapist wanted Eastlyn to (1) have positive feelings about the clothes so that she would be more willing to wear them and (2) have the proprioceptive-vestibular input that would help make the unfamiliar clothing textures more tolerable.

To change Eastlyn's experience of this dressing activity, the occupational therapist compared what she needed to do with her interests, abilities, and strengths in order to identify possible activity modifications (see **Table 8.4** for details). The occupational therapist planned to combine what Eastlyn needed to do (the winter clothes) with a

**PRACTICE EXAMPLE 8.6 Eastlyn's Dressing, Modified and Graded for Play***(continued)*

playful sensory-motor activity that Eastlyn had consistently enjoyed. This play activity consisted of Eastlyn sitting in a swing, climbing backward up a ramp, lifting her feet to swing down the "mountain," and kicking a therapy ball placed on the floor. Eastlyn loved seeing the ball fly to the other end of the room. The role of clothes was graded to gradually increase use and sensory-motor demands. First, the occupational therapist began placing the clothes on top of the ball, telling Eastlyn they were going to pretend to "dress" the ball. The therapist asked Eastlyn which item to place next, eventually making a large pile of clothing on and around the ball. After the first time, when the clothing flew all over, Eastlyn laughed and became very interested, directing the therapist in which item to put next. After a few times, the occupational therapist announced that it was "Eastlyn's turn to get dressed." The occupational therapist gave her an option between two items, and Eastlyn picked a jumpsuit. Eastlyn allowed the therapist to help her put it on and then got back on the swing to continue the game. After a few times, the occupational therapist would suggest another item to wear, always giving Eastlyn a choice. They added mittens, a hat, boots, and a scarf until Eastlyn was covered in winter clothing (see **Figure 8.5**). The occupational therapist also took pictures, which were given to her family to review and discuss how fun it was to get dressed up for the snow. After this one session, Eastlyn was able to tolerate and practice snow dressing with her family at home and wear adequate cold-weather clothing to play in the snow on their family vacation.



**Figure 8.5** Eastlyn increased her tolerance for snow dressing during a graded playful therapy session. First was the jumpsuit (A–B), then the mittens (C), then the hat (D), and, finally, the scarf and boots (E)

Courtesy of Susan L. Spitzer.

**Table 8.4 Professional Reasoning to Determine Possible Play Modifications for Eastlyn’s Dressing**

Activity Components	Demands (“Need to”)	Child’s Interest, Abilities, Strengths	Possible Modifications
Objects	<ul style="list-style-type: none"> <li>■ Heavy pants</li> <li>■ Jacket</li> <li>■ Hat</li> <li>■ Mittens/gloves</li> <li>■ Socks</li> <li>■ Boots</li> <li>■ Scarf</li> </ul>	<ul style="list-style-type: none"> <li>■ Familiar clothes</li> <li>■ Character toys</li> </ul>	<ul style="list-style-type: none"> <li>■ Use toys to model, direct, help</li> </ul>
Sensory	<ul style="list-style-type: none"> <li>■ Tactile</li> </ul>	<ul style="list-style-type: none"> <li>■ Vestibular</li> </ul>	<ul style="list-style-type: none"> <li>■ Combine with a vestibular-based activity</li> </ul>
Motor/action	<ul style="list-style-type: none"> <li>■ Bilateral coordination</li> <li>■ Hand use</li> <li>■ Motor Planning</li> </ul>	<ul style="list-style-type: none"> <li>■ Independent dressing skills for familiar clothes</li> <li>■ Physical activity</li> </ul>	<ul style="list-style-type: none"> <li>■ Combine with a physical activity</li> </ul>
Social	<ul style="list-style-type: none"> <li>■ Follow direction</li> </ul>	<ul style="list-style-type: none"> <li>■ Likes social interaction</li> </ul>	<ul style="list-style-type: none"> <li>■ Increase social interaction</li> </ul>
Cognitive	<ul style="list-style-type: none"> <li>■ Become independent</li> </ul>	<ul style="list-style-type: none"> <li>■ Structure, routines</li> </ul>	<ul style="list-style-type: none"> <li>■ Use an existing structure/routine</li> </ul>

### **PRACTICE EXAMPLE 8.7 Devon and Toileting, Modified and Graded for Play**

Devon was a 5-year-old with developmental delays and sensory modulation deficits. He was receiving school occupational therapy services. His preschool teacher was very concerned because Devon refused to go near the bathroom, let alone go in. Generally, he was very compliant and liked to help and please adults, but he became very upset when the staff insisted he use the bathroom. Occasionally, he had accidents and wet his clothing. He was very upset by this but still refused to go into the restroom. Next school year, the school days would be even longer, and Devon’s refusal to use the restroom at school would likely interfere more with his educational program. His mother reported that he was independent with toileting at home but refused to use public restrooms in the community. The occupational therapist determined that Devon’s resistance to toileting at school was likely due to his sensitivities to sound because the school restroom had old, loud plumbing that echoed in its large, tiled space.

The occupational therapist decided to schedule her sessions with Devon first thing in the morning, when the routine was for the class to use the restroom. First, she modified the routine and offered Devon interesting fine-motor games to play with outside the restroom door. This succeeded in getting Devon out from under the staircase, where he liked to wait, and next to the restroom as he waited for the other children, where he could become accustomed with the routine and be exposed to graded sensory stimuli. Once he was comfortable enough that he could really enjoy the toys, the occupational therapist upgraded the sensory and motor demands by having Devon be the restroom helper whose job was to push open the heavy door into the restroom. He was initially hesitant; the occupational therapist modeled opening the door first, and downgraded the demand by doing it together with him. In this way, the occupational therapist provided a way for Devon to take two steps into the restroom at a time when it was at its quietest (as the first student in), get heavy proprioceptive input to modulate his sensory sensitivities, and be in the helper role that he enjoyed. The occupational therapist gradually upgraded the door-opening demands by steadily decreasing physical assistance and slowing her movements until Devon was initiating and completing door opening on his own.

Getting Devon into the restroom for increasing lengths of time was the next step. This step was also modified as the occupational therapist suggested the toys be given a shower in the sink. First, the activity was downgraded to start with only one toy and then upgraded to increase the number of toys and consequently, the sensory demands over time. Eventually, Devon was able to spend most of the time giving the toys a “shower.” Then the routine was modified as the therapist had him end by washing his hands. Later, the activity was modified to take the toys to “look in” the toilet stalls. By this time, on the days the occupational therapist was not there, Devon was consistently coming in with the class and washing his hands during toileting time. Eventually with continued modifications and grading, Devon began toileting at school.

## PRACTICE EXAMPLE 8.8 Lucas and Play for Bathing

Lucas was a 9-year-old with mild intellectual disability, ADHD, and bipolar disorder. He seemed very aware that other children were able to do more than he was and did not like anything that made him feel like he stood out from other children his age. His parents wanted Lucas to be able to bathe himself adequately just like his younger brother was able to do. Lucas similarly desired competence and independence. Lucas was able to get in and out of the shower and turn the water on and off, but he barely wiped soap or a wash cloth on his body, finishing in 30 seconds without completely cleaning himself. When his parents gave him any directions or assistance, he became so angry that he stopped and refused to do any more. If they insisted, his negative behaviors would escalate into yelling, kicking, hitting, and throwing. They had tried a visual list of what to do, but this did not help either. After evaluating Lucas, the occupational therapist determined that Lucas's difficulties in bathing were due to sensitivity to touch, postural instability, poor sequencing, an impulsive and inattentive behavioral pattern, and dislike with being helped.

Part of the occupational therapy sessions focused on sensory processing and postural control to build underlying foundations for bathing, but Lucas also needed to establish an effective bathing routine. The occupational therapist suggested a "shower" obstacle course with a pretend bathroom, shower, soap, and water. Lucas liked the idea of a new game to play. The occupational therapist guided Lucas to establish rules together, starting from head to toe to make sure that all body parts were "washed" and counting to 10 for each body part to make sure each was washed completely. Lucas helped set up various obstacle courses with each step being a different part of the body to "wash." Lucas especially loved having the occupational therapist take a turn so that he could direct her to follow the rules (to remember what to do next and be sure she was thorough). In this way, showering was not a battle, but a fun play activity to which Lucas looked forward. The occupational therapist often engaged Lucas in building a narrative of how he was learning to bathe himself and how he could do this at home for real too, which he gradually did.

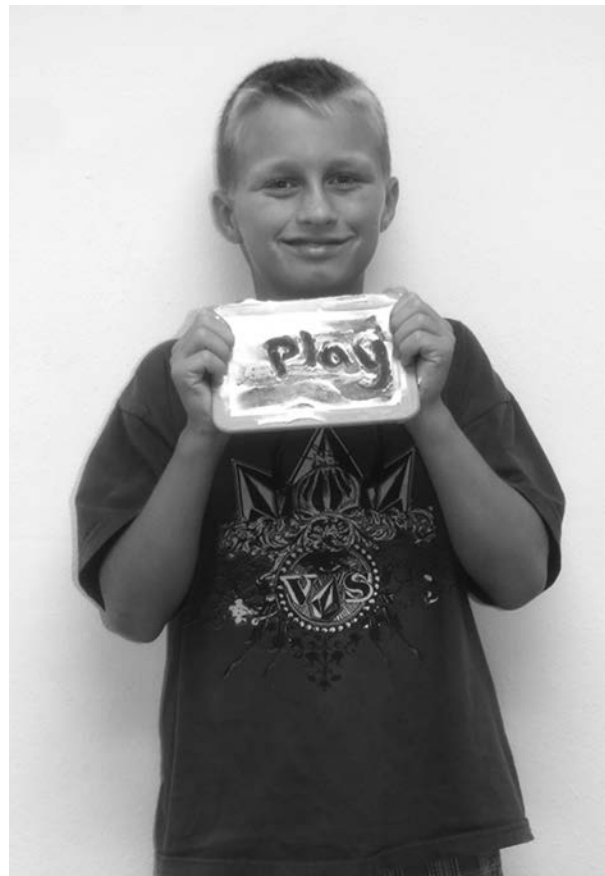
## Infusing Play into Writing

A common reason that schoolchildren are referred to occupational therapy is for help with writing. Some children have trouble learning to write. Some have difficulty with forming letters correctly or legibly. Others have trouble with speed or sustaining endurance for writing assignments. Fine-motor skills, motor planning, and visual perception are common underlying challenges. However, currently strong research supports therapeutic practice over sensorimotor approaches for writing (Grajo, Candler, & Sarafian, 2020), so children need to participate in writing as part of therapy. Yet, children may perceive writing as a work activity, especially when directed by an adult (Breathnach, Danby, & O'Gorman, 2017). Although many children may want to write better, easier, and faster, they often hate the current overwhelming difficulty of writing and resist it or refuse to *work* on it. Making fun from the work of writing is quite a challenge, especially once children have had such negative experiences with it. Here we provide a number of examples of modifications we have used to incorporate meaning, abilities, and strengths to adapt writing to be more like play:

- Modify materials (such as soap foam, clay, markers, colored pencils, crayons, sand tray, paintbrush dipped in water with a chalkboard, body crayons to make "tattoos"; see **Figure 8.6**)
- Modify content (words)
  - Talk about or fill-in letters within words and sentences rather than isolated letters for children who can read or are more interested in this level despite not yet being able to write letters.
  - Write meaningful words that are
    - About the child's interests (car brands, foods, etc.)
    - About an upcoming event/holiday
    - Funny or socially "inappropriate" by adult standards (for ideas, see **Box 8.1**)
    - Silly made-up words (Many children find it fun to try to sound out words from random letters or hear the therapist do so. The therapist and child can even guess/make up a meaning for the "words.")
- Modify client relevance of writing:
  - Draw shapes and simple pictures first to get better visual-motor skill for using a pencil
  - Play tic-tac-toe with different letters or words instead of X's and O's
  - Play hangman
  - Guess the word (write dictated spelled words)
  - Incorporate writing into a play theme:
    - Hidden messages to pirates about hidden treasure or to monsters or ghosts
    - Banners or signs to use in "presentations" such as for a circus or store



- Written score in a game with points (or make points up)
- Rules for an activity
- Board game with direction cards or written directions
- Card game with letters, numbers, or words to pick and write
- Letter tic-tac-toe
- Writing competitions—against self or others where neat letters get points for the child and messy ones are points for the therapist; upgrading by adding bonus points for neatness within a time frame
- Detective games—give clues that are written down by the “detective” on a notepad to then determine the answer to a mystery (similar to *Clue* game)
- Write a list of activities the child wants to do or has done
- Make a book about a topic that interests the child:
  - Occupational therapy memories—a picture and caption from each session
  - Jokes
- Comic/cartoon—draw pictures or use stickers and then make talk balloons to write in the character comments
- Favorite subjects such as cars, super heroes, planets, etc.
- Write a letter or word at the end of each pass through an obstacle course or scooter board path
- Keep a graph for the child to record his or her own performance on writing activities to track increasing performance and try to beat his or her previous score (points for amount of writing, speed, neatness, etc.)
- Make up own *MAD LIBS*
- Write a letter to someone real or made up
- Make a list of toys the child wants to get from a catalog
- Combine writing with another favorite interest:
  - For a child interested in geography, make a map of the country with names of all the states written
  - For a child interested in superheroes, when letters do not turn out well, put bad letters in “jail” (draw a square around them and put vertical lines through)



**Figure 8.6** Modifying materials often can make the work of writing more like play.

Courtesy of David A. Morales.



- For a child interested in a particular character or object, use an appropriate colored pencil to do “writing” such as red for “Spider-Man” writing, black for “Darth Vader” writing, blue for “Cookie Monster” writing, etc.
- Make a label for a food product (e.g., pizza box, soda can, candy bar, cereal box)

For children learning the prewriting skills of drawing lines and simple shapes, some of the aforementioned ideas can be graded for prewriting skills as well. However, you may also need to come up with unique modifications for children who

find prewriting more work than play. For example, making intersecting lines for a railroad crossing sign can be less work for a child who is very interested in trains. But even using a pencil may be resisted by some children, and more creative playful approaches are needed such as presented in the Learning Without Tears (2021) readiness activities and illustrated in the case of Toni (see **Practice Example 8.9**). Unique ways of drawing can also be more playful. For example, faces can be drawn with washable markers and squirted with water to “melt” them, or they can be drawn on partially inflated balloons and then blown to “stretch the monster face” or “make a silly face.”

### Box 8.1 Examples of Words Children May Find More Interesting to Write

barf	gag	poop	spit	wahoo
belch	gas	potty	splat	wart
blah	goosey	pow	stinky	whoop
blast	gross	pus	toilet	yahoo
bonkers	horrifying	quack	trash	yawn
boogers	jabber	sewer	turd	yelp
burp	jeepers	slime	underpants	yuck
butt	jolt	slurp	vapor	zap
crash	ka-boom	smelly	venom	zany
crazy	magic	snarled	vermin	zillion
dodo	maniac	sneeze	vex	zip
fart	ooze	snore	vomit	zoom
flush	pee	snot	wacky	

Note: These words are presented as examples of what some children may prefer to write. They should be used with caution, in consideration of the child’s sociocultural environment.

### PRACTICE EXAMPLE 8.9 Toni and Modified Prewriting

Toni was a 5-year-old with a seizure disorder and an anxiety disorder. She was very interactive socially and verbally but resisted all fine-motor and paper-and-pencil activities. She could make gross circular, vertical, and horizontal lines. The occupational therapy evaluation indicated difficulty with accuracy in reach, grasp, and release because of deficits in visual perception and motor control, which meant drawing and writing would require great effort. Toni’s favorite activity was eating. She often talked about her favorite foods and loved to pretend she was eating. Her family wanted Toni to participate in academic-oriented paper-and-pencil activities such as writing.

To address this need, Toni’s occupational therapist analyzed the activity demands for writing alongside her interests, abilities, and strengths to identify possible modifications to engage Toni (see **Table 8.5**, which summarizes this analysis). Because of Toni’s resistance to using a pencil, the occupational therapist determined it was best to start by modifying prewriting activities to eliminate a pencil so that Toni would participate. She decided to use craft sticks to have Toni imitate making intersecting lines for a cross to embed the visual constructional aspects of prewriting. When presented with the craft sticks activity, Toni turned and walked away, refusing to come back.

For the next session, the occupational therapist planned additional modifications to increase personal meaning for Toni, an intervention that has been found to be effective in building motor control and motor learning (O’Brien & Lewin, 2008, 2009). The occupational therapist decided to capitalize on the fact that craft sticks are quite similar to sticks used in food items. She first held the sticks, pretended to lick one, and began banging the sticks on the table as she sang the beginning of the Lollipop song (Ross & Dixson, 1958). Toni smiled and watched the therapist, laughing as the therapist added an exclamatory “pop!” as she crossed her sticks together and put them on the table in this crossed position. Toni asked to play too, and they sang several rounds with Toni actively trying to place the craft sticks in a cross formation, a precursor to connecting lines for writing and drawing. With a foundation of engagement in social play, further upgrading and modifications could be made to build Toni’s skills and eventually apply these with writing.

**Table 8.5 Professional Reasoning to Determine Play Modifications for Toni's Writing**

Activity Components	Demands ("Need to")	Child's Interest, Abilities, Strengths	Possible Modifications
Objects	<ul style="list-style-type: none"> <li>■ Paper</li> <li>■ Pencil</li> </ul>	<ul style="list-style-type: none"> <li>■ Food and eating</li> </ul>	<ul style="list-style-type: none"> <li>■ Paper/pencil alternatives</li> <li>■ Food items/themes</li> </ul>
Sensory	<ul style="list-style-type: none"> <li>■ Somatosensory processing—praxis</li> <li>■ Visual attention and perception</li> </ul>	<ul style="list-style-type: none"> <li>■ Good visual attention to people's faces and whole-body actions</li> <li>■ Good language processing</li> </ul>	<ul style="list-style-type: none"> <li>■ Full body actions, done at or near face</li> <li>■ Language directions to match her motor control and compensate for visual perception</li> <li>■ Larger items with contrasting/bold colors</li> </ul>
Motor/action	<ul style="list-style-type: none"> <li>■ Fine-motor</li> <li>■ Visual-motor</li> <li>■ Sedentary</li> </ul>	<ul style="list-style-type: none"> <li>■ Able to sit at table for extended periods of time for eating and social interaction</li> </ul>	<ul style="list-style-type: none"> <li>■ Larger items</li> </ul>
Social	<ul style="list-style-type: none"> <li>■ Responding to follow direction</li> </ul>	<ul style="list-style-type: none"> <li>■ Likes social interaction, talking</li> <li>■ Good social skills</li> </ul>	<ul style="list-style-type: none"> <li>■ Increase social interaction</li> </ul>
Cognitive	<ul style="list-style-type: none"> <li>■ Sequencing</li> <li>■ Become independent</li> </ul>	<ul style="list-style-type: none"> <li>■ Likes novelty and dramatic play</li> </ul>	<ul style="list-style-type: none"> <li>■ Make the actions playful</li> <li>■ Focus the activity more on process than outcome</li> </ul>
Location/space	<ul style="list-style-type: none"> <li>■ Table</li> </ul>	<ul style="list-style-type: none"> <li>■ Comfortable at table</li> </ul>	<ul style="list-style-type: none"> <li>■ N/A</li> </ul>

## Infusing Play into Cutting

Cutting with scissors is another common referral concern for pediatric occupational therapy practitioners. Typically, the child has significant challenges in developing this skill and thus perceives it as more work than play. This contrasts with the reaction of typical children who may show great pride in their developing cutting skills. For the child who is uninterested in or resistive to using scissors, modifying objects, their use, and client relevance may help in transforming cutting into a playful activity as seen with Viviana (see **Practice Example 8.10**). Additional suggestions for playful cutting modifications include

- Use scissors as puppet mouths to “talk” to each other
- Use scissors as mouths to “eat” paper
- Snip small pieces of paper as cargo to load a truck/train, as food for a character, or as raindrops to fall
- Make a path on paper with stamps/stickers of monsters or dinosaurs and then “chase”/“eat” them with the scissors

- Place a sticker at the beginning and end of the line, such as a dog at the beginning and a bone at the end or a car at one end and a house at the other
- Cut different materials, such as play-dough and straws
- Cut a small amount at the end of each pass through an obstacle course or scooter board path
- Cut through a “ribbon” of paper to start each round of an obstacle course like a ribbon-cutting ceremony.
- Cut items that can be used as props in play:
  - Costumes out of paper and tape—color, cut, and tape things onto clothes or skin (clowns with red circles on cheeks, spots on a dog or leopard, red nose for “Rudolph”)
  - Trace, color, and cut large numbers to make a sports jersey
  - Cut items to make paper dolls, dogs, super heroes, etc.

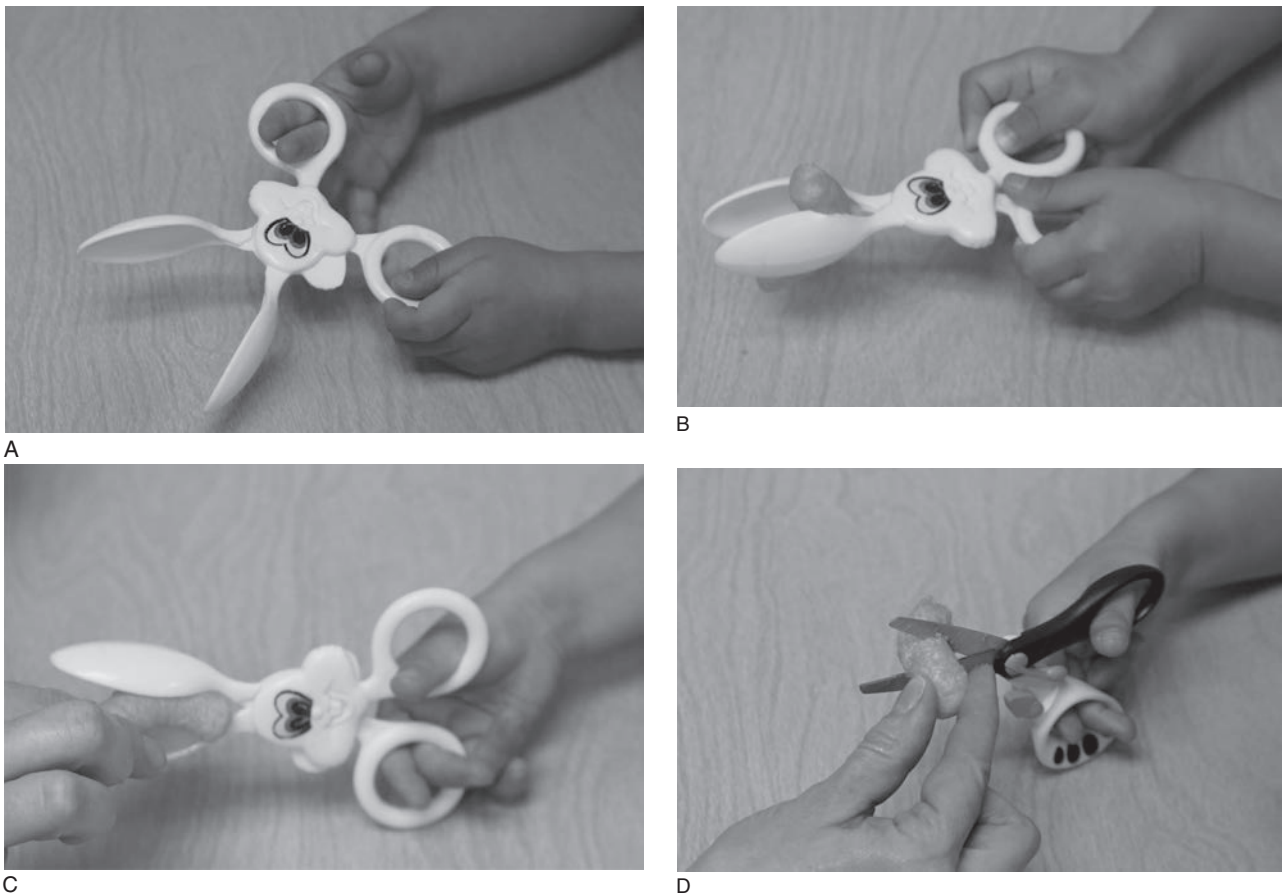
## Minimizing the Work in “Play” Activities

A young client may pick up a toy, smile, explore it, and hand it to the therapist. From here, the occupational

### PRACTICE EXAMPLE 8.10 Viviana and Cutting Modified and Graded

Viviana, was a 5-year-old with ASD, who resisted visual motor activities. When presented with scissors, she screamed in protest and pulled her arm away, refusing to touch the scissors. Clearly, scissors had taken on negative meaning, but the occupational therapist's inquiries could not identify any specific occurrences where she or anyone else was cut with scissors. Different kinds of scissors were tried but the reaction was the same as she consistently resisted this work.

Given the negative reactions to scissors and the need to develop some motor skills to experience success, the occupational therapist decided first to work on related activities that did not use scissors and asked her teacher to try to put a temporary hold on scissors for Viviana. The occupational therapist decided to use a scissor-type tongs to allow Viviana to build up needed skills while creating a different meaning (see **Figure 8.7**). First the "bunny" tongs were used just to hold and move in various different activities like any other toy. Once Viviana was comfortable with the bunny tongs, the use was upgraded by having her slip her fingers inside the handles to get comfortable with the tactile sensation. Then the activity was upgraded again to use the bunny tongs to grab something, specifically her favorite snack item. Initially, the therapist physically guided the process for immediate success. Further grading involved slowing the speed of assistance for Viviana to tolerate the work and time delay to getting the snack, lessening the use of her second hand on the tongs, and then gradually providing less physical assistance from the therapist. Once she could open the tongs by herself using one hand, Viviana had the motor skills needed for self-opening scissors. The activity then was modified with self-opening scissors to cut her favorite snack food into pieces to eat. Because of the history of positive playful experiences created with the bunny tongs, Viviana was willing to participate in this new use of scissors. Initially, she was physically guided for success and quick access to the snack, but the activity was graded to gradually decrease therapist assistance as Viviana began to apply her skills. Later, the activity was modified to add paper strips, which were alternated with snack items.



**Figure 8.7** The use of "bunny" tongs was downgraded to object play initially to engage Viviana. Then it was gradually upgraded to holding the handles (A), using the bunny tongs to hold her favorite snack item (B), and using one hand on the handles (C). After skills were built, the activity was modified with self-opening scissors to cut her favorite snack food into pieces that she could eat (D).

Courtesy of David A. Morales.

therapy practitioner can suggest a playful way of holding or placing the toy to address therapeutic goals. An older child may reach for a rope offered by the therapist and respond, “Hey, I’m a cowboy!” From here, the occupational therapy practitioner and client build a story line around this idea, with the therapist suggesting materials or actions to work on therapeutic goals that are consistent with this story line. This is the ideal, and it is a beautiful, wondrous process when it occurs.

Unfortunately, the reality is that many of our clients do not possess such a playful approach or the ability to adapt their play ideas with therapeutic goals. Even activities that are commonly called play and seen as play by other children in the general society may not be experienced as play by individual pediatric clients. For example, some children are not interested in any of the play that the other children are doing at recess or in their neighborhoods. Thus, the children play by themselves. This is problematic when the child wants to have friends or needs to develop social interaction skills. A common option is building skills so that the child can join successfully in the activities the children are playing, which in turn can increase the experience of play. However, even with foundational skills, some children will not be motivated to play what other children are playing. Another possibility is offering other play activities (such as board games at recess) or getting other children to play what the client wants to play. But this option too may be inadequate as other children may not share the client’s interest or may lack in-depth knowledge to play games based on the client’s interest (such as detailed knowledge about how solar systems are created or all the countries and capitals of the world). In such cases, adapting the game into play for a particular client is needed. Research supports that including a child’s interests can be effective for promoting play participation, especially for children with ASD (i.e., Baker, 2000; DiCarlo, Schepis, & Flynn, 2009; Jung & Sainato, 2015; Koegel et al., 2012; Kryzak et al., 2013; Owens et al., 2008; Porter, 2012; Reinhartsen, Garfinkle, & Wolery, 2002; Vismara & Lyons, 2007; Wimpory, Hobson, & Nash, 2007). If the client can perceive it as play, he or she will be more motivated to participate in the activity. The gap between the interests of a client and the play context can be bridged with occupational analysis and evaluation of the child to guide modifications, as in the case of Zach (see **Practice Example 8.11**).

## Conclusion

Adapting play is a specialized intervention skill that rests on the serious work of professional reasoning

### PRACTICE EXAMPLE 8.11 Zach and Recess

Zach was a 9-year-old with ADHD and highly gifted intelligence, also described as twice exceptional or 2E. Zach liked other people and had a strong desire for social interaction with all ages of children and adults. At recess, however, he mostly played by himself, enacting elaborate make-believe stories of kind animals that play together and avoid attacks by “mean” animals. The other children played soccer during recess. When asked if he wanted to play with the other children, Zach responded “yes,” but said that he did not want to play soccer because “it is mean and you get hurt.” Although some other activities were available, the other children still wanted to play soccer. If Zach was going to play with the other children, he would need to be able to play soccer, he would need to be willing to participate in soccer, and ideally he would want to *play* soccer.

The occupational therapist decided to modify soccer into a game that interested Zach by adding Zach’s interest in make-believe animal stories. The therapist relied heavily on narrative analysis to negotiate a story with Zach as described by Price and Miner (2007). Together in their sessions, they created a storybook about horses and wolves kicking rocks, in a manner supported by research studies (Keeling, Smith Myles, Gagnon, & Simpson, 2003; Spencer, Simpson, Day, & Buster, 2008), which is provided in **Appendix 8.2**. Then, Zach was willing to try playing soccer as he could use his imaginative strength to transform it into play.

in order to be both occupation focused and client centered. The occupational therapy practitioner grades and modifies activities to match the individual client’s interests and needs. Modifications are aimed at immediate participation by enabling access and ensuring client meaning and motivation. Although a child may experience a range of daily activities as work, through occupational therapy, the work can be modified into play or playlike experiences. Grading sustains play as well as builds a child’s skills by incrementally increasing and decreasing activity demands to present achievable challenges. The spontaneous and dynamic aspects of play are difficult to plan adaptations with certainty. However, with a strong foundation in activity analysis, knowledge of play, and awareness of the child’s interests, occupational therapy practitioners are well positioned for this formidable and rewarding aspect of practice and are ready to seize spontaneous opportunities to create just right play in the moment.



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# APPENDIX 8.1 Modifying Work into Play: Worksheet

Child's Name:	
Activity Child Needs to Do:	

**Directions:** Note core activity demands the child needs to do (from the activity analysis) as well as the child's preferences and skills. Compare these two columns to identify ways of modifying the activity to include what the child can and wants to do. Then, try modifications to determine child's level of acceptance, resistance, or interest.

Activity Components*	Activity Demands	Child's Interests, Abilities, Strengths	Analysis: Possible Modifications
Objects Used (toys, materials, shape, color, size, etc.)			
Sensory Features (visual, auditory, tactile, vestibular, proprioceptive)			
Motor/Action Features (eyes, posture, hand use, movements, motor skill/coordination, etc.)			
Cognitive Features (sequencing, problem solving, construction, imagination, etc.)			
Social Features (interaction with people)			
Location & Space			

\* Activity components are based on AOTA (2020) and applied for most common use in pediatrics. However, therapists are urged to modify as needed to best suit individual practice settings.

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