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Move Together, Communicate Together: Supporting Preschoolers' Communication Skills Through Physical Activities

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Abstract
During the preschool years, children develop several inter-related skills including motor skills and communication skills. In this article, we highlight several communication teaching strategies and describe how practitioners can promote communication skills of preschoolers with disabilities by providing them with multiple opportunities to practice these skills during motor activities. The following strategies are described: arrange the physical environment, model motor vocabulary, ask motor related questions, use a fill in the blank strategy, and reinforce/prompt child communication. The use of these strategies during large and small group motor activities is illustrated with vignettes. We present strategies for creating an engaging environment and providing meaningful opportunities so that children can learn important communication skills while also developing critical motor skills.

Keywords Communication · Physical activities · Preschoolers · Disabilities

Introduction

Ms. Haslet is an early childhood special education (ECSE) teacher in a local public preschool. Some of her students have Individualized Education Plans (IEPs) with communication goals. Ms. Haslet implements a motor program which supports the motor development of preschool age children with and without disabilities through direct instruction. Ms. Haslet brings her students to the school gym to do the program activities. In one of the activities, Rabbits and Foxes, Ms. Haslet introduces various animals and movements, and labels students' actions. The class jumps and sings the song "Jumping Bunnies" until the teacher rings a bell and the children go back to their floor markers. In an activity called Hungry Horsey, children use pool noodles (a flexible foam cylinder that can be used as a swimming pool toy. See Fig. 1), as horses and apples, balancing "apples" on the pool noodles as they walk along a balance beam and over hurdles through an obstacle course. Prior to playing, Ms. Haslet typically leads a discussion about horses such as their names (horse, pony, colt), habitats (barns, fields), movements (gallop, walk, trot), and preferred food (apples, carrots, grain, hay) to support communication skill development. Ms. Haslet noticed that her students become physically and socially engaged when she implements the motor program and recognized opportunities to address the communication goals of her students while they are physically active.

There is growing evidence about the importance of physical activity and the development of fundamental motor skills in young children (Aronson-Ensign et al. 2018; Favazza and Siperstein 2016). Some gross motor skills that develop during the preschool years include: jumping, hopping, catching, kicking, throwing, skipping, balancing on one foot, and running and walking forwards/backwards/sideways. While young children with disabilities often experience deficits in this area, these motor skills can be supported through direct and intentional instruction within the context of physical activities. Being active is important for all children as

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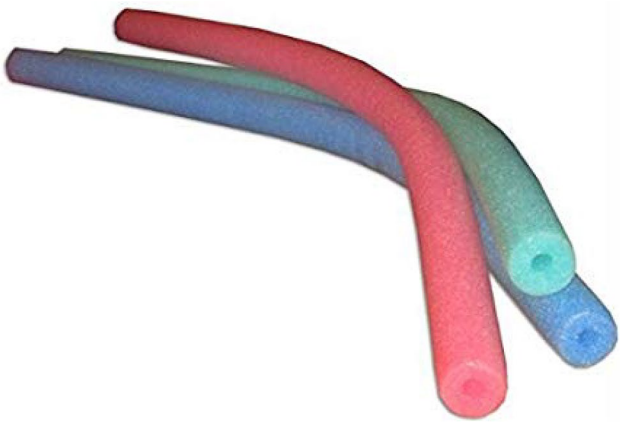

Fig. 1 Foam noodles

they grow and develop; therefore, young children should be provided with multiple opportunities throughout the day in which they can move freely. In addition, while motor development is important in and of itself, it also supports other areas of development including inter-related school readiness skills such as social-emotional, communication and cognitive skills (Haiback-Beach et al. 2018; Haywood and Getchell 2014; Howard 2011). Motor and communication development include important inter-related skills that begin developing very early in life (see Table 1 for developmental milestones that occur during the preschool years). For the purpose of this paper, we use the term communication to include expressive and receptive language skills and social communication skills.

Typically developing children acquire and develop communication skills in a relatively easy manner over time, whereas many children with developmental delays or disabilities go through the same process but at a much slower pace (Akamoglu et al. 2016). For example, typically developing preschoolers develop the following expressive language skills: naming common objects and actions, speaking in sentences of five to six words, using a rich array of vocabulary words, starting and maintaining conversations, and mastering basic grammatical rules (ASHA 2019). On the other hand, children with disabilities or delays might develop speech (i.e., spoken language) yet they can still have difficulty with their ability to communicate because of limited vocabulary or challenges with initiating and maintaining conversations. Communication skills can be supported through physical activities that support fine motor development (i.e., manipulating balls and beanbags) and gross motor activities (i.e., jumping, balancing objects, running, and galloping) (Green et al. 2009). For example, Bhat et al. (2012) assessed the relationship between early motor skills and communication development, suggesting an association between motor delays at 3 months and communication delays at 18 months in at-risk infants. Furthermore, LeBarton and Iverson (2013) reported that fine motor skills (from a composite score of these skills between 12 and 24 months) predicted expressive language outcomes in at-risk infants at 36 months. In light of this information, practical ways to

Table 1 Developmental milestones across three areas Reproduced with permission from Gerber et al. (2010)

Milestone area	Gross motor	Receptive language	Expressive language
Age (years)			
3	• Balances on one foot for 3 second • Goes up stairs, alternating feet, no rail • Pedals tricycle • Walks heel to toe • Catches ball with stiff arms	• Points to parts of pictures (nose of cow, door of car) • Names body parts with function • Understands negatives • Groups objects (foods, toys)	• Uses 200 + words • Speaks in three-word sentences • Uses pronouns correctly • 75% intelligibility • Uses plurals • Names body parts by use
4	• Balances on one foot 4 to 8 seconds • Hops on one foot two to three times • Jumps forward 1 to 2 feet • Gallops • Throws ball overhand 10 feet • Catches bounced ball	• Points to things that are the same versus different • Names things when actions are described (e.g., swims in water, you cut with it, it's something you read) • Understands adjectives: bushy, long, thin, pointed	• Uses 300 to 1000 words • Tells stories • 100% intelligibility • Uses "feeling" words • Uses words that tell about time
5	• Walks down stairs with rail, alternating feet • Balances on one foot > 8 second • Hops on one foot 15 times • Skips • Jumps forward 2 to 3 feet • Walks backward heel-toe • Jumps backward	• Knows right and left on self • Points to item that is different in a series • Understands adjectives: busy, long, thin, pointed • Enjoys rhyming words and alliterations • Produces words that rhyme • Points correctly to "side," "middle," "corner"	• Repeats six- to eight-word sentences • Defines simple words • Uses 2000 words • Responds to "why" questions • Retells story with clear beginning, middle, and end

integrate communication interventions into preschool physical activity programs are needed.

Physical activities trigger children's imagination, leading to exploration and stimulation within their environment, which supports both motor and communication skill development (Aronson-Ensign et al. 2018; Iverson 2010). Interaction with both the physical and social world is important for the acquisition of language (Iverson 2010; Vygotsky 1978). Children must be aware of their world before they can put their ideas and thoughts into words. For example, several studies have demonstrated that exploration that is based on sensorimotor experiences is positively related to the development of communication skills (Iverson and Braddock 2011; Scofield et al. 2009; Smith 2003). As children's language level increases with age, significant correlations with gross and fine motor skills continue to be reported. Moreover, gross motor skills that expand a child's posture, movement and exploratory opportunities (i.e., sitting, locomotion) are known to advance verbal and non-verbal communication in typically developing infants. For example, the transition to independent sitting is reported to be associated with greater changes in utterance production as evidenced by variation in consonant–vowel sounds and fewer single vowel sounds (Iverson 2010). This is not surprising given that children are visually and physically exposed to different things in their environment when in a stationary seated position versus moving around the environment by crawling or walking.

Physical activities that consist of gross and fine motor behaviors can be powerfully reinforcing contexts for systematic communication interventions. Manipulating materials within the context of fine motor activities and exercising large muscles during gross motor activities are favorite movements of children with and without disabilities (LeBarton and Iverson 2013). The communication skills required during physical activities can be very specific, repetitive, and intentional thereby providing multiple authentic opportunities for preschoolers to develop social communication skills (Iverson 2010). In addition, both verbal and nonverbal communication can be supported during motor programs. Verbal communication includes verbally responding, initiating, maintaining communication, and engaging in conversations using spoken words while nonverbal communication includes skills such as gestures, pointing, and eye contact (Akamoglu et al. 2016; Kaiser and Roberts 2013). For example, during motor play, children can be taught to signal their peer when passing a ball (i.e., *Ready Mike? Sarah, it's your turn!)* or initiate communication (*Who wants to play? Will you be my partner?*). Verbal forms of communication also can be targeted by teaching new vocabulary words and phrases (i.e., gallop, overhand throw, underhand throw). Likewise, nonverbal forms of communication that might be targeted during physical activities could include fine motor skills such as *pointing* to a body part during a warm-up activity or a gross motor skill such as holding a ball and *showing* it to a peer. Also, teachers can intentionally vary the set-up or arrangement of the physical activity, the assignment of partners or selection of specific prompts for receptive and expressive language during physical activities, depending on students' communication goals (Bhat et al. 2012; Iverson 2010; Kaczmarek 1982). The first step in determining communication goals is observing interactions that take place during motor activities as this often reveals multiple opportunities for children to learn and demonstrate communication skills. Most often, receptive language skills in the form of following directions are informally facilitated. While receptive language skills and, less frequently, expressive language skills are prompted by teachers during physical activities, generally little effort is made to teach specific communication skills systematically within this context (Iverson and Braddock 2011; Provost et al. 2007). Moreover, teachers can consider children's books and/or music that complement communication skills within motor activities. Ostrosky et al. (2018) provide practitioners with practical suggestions for using children's literature to support physical activities. Teachers also can utilize the following online resources to create literature and music based activities for motor and communication skills:

- Physical activities. https://illinoisearlylearning.org/tipsheets/physicalactivities/
- Music activities. https://illinoisearlylearning.org/tipsheets/music/
- Teacher directed physical activities. https://vkc.mc.vanderbilt.edu/ebip/teacher-directed-physical-activity/
- Incorporating physical play in the preschool classroom. http://www.easternct.edu/cece/incorporating-motor-play-in-the-preschool-classroom/

Although the connection between motor and communication skill development is well established, many early childhood programs have decreased the amount of time dedicated to physical activity (Aronson-Ensign et al. 2018). In recent years, there have been increases in the number of available early childhood motor programs that address fundamental motor skills through fun activities. Some of these programs include CHildren in Action: Motor Program for PreschoolerS (CHAMPPS; Favazza and Ostrosky 2015), Sports, Play, and Active Recreation for Kids (SPARK; https://sparkpe.org/early-childhood/curriculum/lesson-plans/), and KID FIT (https://www.kid-fit.com/curriculum.html). For example, CHAMPPS[1] is a motor program that targets multiple

[1] Please note that CHAMPPS is included only as an example program and not available free of charge.

domains through Universal Design Learning (UDL) to support school readiness skills (i.e., social, language, motor, pre-academics) for children with and without disabilities (Aronson-Ensign et al. 2018; Favazza and Ostrosky 2015). All children in inclusive preschool settings can benefit from programs such as CHAMPPS because each lesson is embedded with UDL strategies (CAST 2011; Horn et al. 2016). For example, every activity within a lesson addresses the three UDL components: *multiple means of representation* (i.e., offers differences in task complexity and/or expectations in response to different ability levels), *multiple means of engagement* (i.e., suggests a variety of ways to motivate children in response to different learning styles, interests, and preferences), and *multiple means of expression* (i.e., includes a variety of response modes that children can use to demonstrate skills in response to different ability levels). Table 2 provides a brief overview of CHAMPPS components; also see Aronson-Ensign et al. (2018) for a detailed description of CHAMPPS. Through CHAMPPS activities, children practice and learn vocabulary words such as over, under, and up, and action words such as kick, catch, and gallop. Moreover, children learn to cheer on their friends while they go through obstacle courses, and they develop spontaneous language such as, *"Nice job throwing"* and *"Go Gabe!"*

Motor activities are an ideal context for children to engage in social interactions, and practice and develop communication skills (Bhat et al. 2012; Iverson 2010). To embed communication skills within motor activities, it is important to be precise in planning and arranging the physical and social environment. Teachers must be intentional in selecting motor activities and communication strategies to match children's goals. Therefore, in this paper, we describe how preschool teachers can support the communication skills of children with disabilities through interactive physical activities, highlighting teaching strategies that can be embedded during inclusive motor activities. Examples of teaching strategies are included in Table 3.

Arrange the Physical Environment

By arranging the physical environment during motor activities, teachers can increase all children's levels of engagement, including those with physical disabilities. This can subsequently lead to increased opportunities for communication. To improve children's engagement in motor activities, teachers should create an environment that encourages gross motor behaviors such as running, jumping, kicking, or throwing balls and accommodates the needs of children with physical disabilities. The physical environment should be arranged in a way that provides space for children in wheelchairs, minimizes sedentary time, and encourages children to spend a large amount of time moving with multiple opportunities to communicate. Certain modifications can be made to accommodate children with physical disabilities. For example, Velcro strapping can be added to bats or paddles so that a child with gross motor difficulties may hold these materials easily. Other adaptations may include lowering a basketball net, using larger or smaller balls or utilizing a tee (an adjustable post on which a ball is placed for batting) to hold a ball. In this type of environment, children have opportunities to hone not only their motor skills as they interact with peers, but also develop communication skills (Burdette and Whitaker 2005; Provost et al. 2007). For example, a teacher can limit the number of balloons, scarves, or balls available during a motor activity so that children have to ask a peer to share or take turns.

Peer interactions during physical activities are an especially important context for the development of communication skills. Teachers can promote peer interaction by pairing students with disabilities with peer models or placing peer models within close proximity of children who struggle socially or communicatively (i.e., within 3 feet or within close distance). Then, teachers can use verbal and gestural prompts to encourage sustained physical and communicative interactions between peers (Feldman et al. 2016). *For example, Lily who has cerebral palsy and is in a wheelchair, primarily uses sounds, vocalizations and occasionally words to communicate with others. She has 11 functional spoken vocabulary words and her communication goals are to use two-word utterances and to learn how to take turns and share with others. Lily is standing at the Snowman Throw station (see Fig. 2), where children have multiple opportunities to throw a beanbag overhand, toward a snowman poster board. The poster board is lowered so that Lily can throw a beanbag to the snowman. Lily approaches her classmate Sean but does not interact with him or ask for a turn. Ms. Haslet prompts Lily with, "Lily, say, 'My turn'" along with a visual cue of a "my turn" card. Lily does not respond. Ms. Haslet prompts her two more times in the same manner. Lily takes the cue card and gives it to Sean and smiles. Sean then gives the beanbag to Lily. Ms. Haslet uses the same prompt a few minutes later after Sean has thrown the bean bag multiple times. After playing for about 5 min, Lily can be heard saying, "My tuu" as she smiles and hands Sean her visual cue card. Lily and Sean continue to take turns and play a little longer.*

Model Motor Vocabulary

During physical activities, teachers can demonstrate or model specific motor words, signs, or gestures to highlight target communication behaviors (Meadan et al. 2014; Roberts et al. 2014). Using multiple means of communication (i.e., words, signs, gestures, visual/picture cards) to model motor vocabulary aligns with the UDL principle for *multiple means of expression.* It is important that teachers give

Table 2 Examples of activities and teaching strategies within the CHAMPPS* motor program

	Warm-up	Activity 1 Balloons in the sky	Activity 2 Tee-ball	Activity 3 Hockey	Cool down
Teaching strategy					
Model motor vocabulary	Demonstrate lunges and model, "lunge" or "This is called lunging"	Model vocabulary words such as "balloon, squeeze, tap, red/yellow/blue balloon, big/small balloon"	Model vocabulary words such as "tee-ball, catch, throw, swing, bat, ball, hit"	Model vocabulary words such as "strike, ball, hit, hockey, station"	Model vocabulary words such as "stretch, roll, yoga, goodbye"
Ask motor-related questions	Ask, "Am I lunging or jogging?" "What is lunging?"	After throwing a balloon in the air, ask, "We have lots of different balloons. What's your favorite color?"	Ask choice questions such as "Do you want the red or yellow bat?"	Ask questions such as, "Was it easy or hard?" "Why was it easy/hard?"	"Why are you sweaty?" Give choices, "Should we roll or stretch arms?"
Use fill in the blank	Demonstrate lunging and say, "This is called_____?"	Sing "Balloon in the sky, balloon in the sky." The second time pause while singing, "Balloon in the ___" and look at a child expectantly while waiting for him/her to fill in with the word "sky"	Adjust the T-ball tee so it is too high by placing blocks under the stand; look at the child expectantly and wait for the child to request that it be lowered	Hold the ball and look at the child expectantly to request/say, "ball"	While cooling down say, "We are going to _____" and wait for the child to say, "roll or stretch"
Reinforce and prompt children's communication	Nice job asking for "jogging"	"I like how you know your colors!"	Reinforce by saying, "Yes, you want the 'ball'"	"Nice way saying, 'Share with me'"	"Good job using your words to say, 'roll.'"

CHAMPPS Children in action: Motor program for preschoolers (Favazza and Ostrosky 2015)

Table 3 Communication teaching strategies

Strategy	Description	Examples
Arrange the environment	Arrange the physical environment to minimize sedentary time and allow children to spend a large amount of time moving to ensure multiple opportunities to support their communication skills	Create multiple activity stations. In one station children can bowl with plastic balls and water bottles and at another station they can throw balloons in the air. Model vocabulary words such as, "balloon, throw, catch" or ask, "What is your favorite color balloon?"
Model motor vocabulary	Use modeling during physical activities to teach previously identified motor words, signs, or gestures	Using plastic balls, create a kicking activity and model words like kick, trap, and dribble. For students with disabilities, model the action "dribble" and say it verbally. Wait 3–5 seconds for the child to respond. If the child says, "dribble," reinforce him. If you receive no response, model the same word again or at another time
Ask motor-related questions	Prepare motor-related questions in the form of open-ended questions, choice questions, or "tell me/show me" instructions	After a stretching activity, ask an open-ended question such as, "Why do our bodies get warm when we move?" or choice question, "Is stretching a fast activity or slow activity?"
Use fill in the blank	Give children opportunities to fill in the blank in a song or common phrase during a physical activity. This allows children to complete a sentence or song with words or vocalizations that they know and have used before. It can also lead to children leading the songs for the class	Give children scarves and as they shake them in their hands then toss the scarves in the air sing, "popcorn kernels, popcorn kernels in a pot, in a pot, shake them shake them shake them till they pop." Repeat the song a few times and encourage students to fill in the word "pot"
Reinforce and prompt child communication	Reinforce child responses by making positive, descriptive comments about a child's communicative behavior. Also, prompt responses by encouraging children to respond to communication requests and initiate communication	As children are playing with balloons, if a student says something like, "red balloon" you can reinforce his/her language by saying, "Yes, that's a 'red balloon'"

Fig. 2 Snowman station

Fig. 3 Tee ball station

children plenty of opportunities to experience the modeled word or concept and build that understanding over time. For example, a child should hear the word "hop," see it happening in action, respond to a picture card representing "hop," and have opportunities to practice "hopping." This way, children learn to use different types of communication modes to express their knowledge (CAST 2011; Horn et al. 2016). To illustrate this, a teacher can arrange two stations of motor activities (tee-ball and hockey) and divide the class into two small groups. At the tee-ball station (see Fig. 3), the teacher can verbally model and show picture cards of vocabulary words such as "tee-ball," "catch," "throw," "swing," "bat," "ball," and "hit." Simultaneously, at the hockey station, the teaching assistant can use vocabulary such as "hit," "aim," and "strike," and ask children to demonstrate each motor word or share their thoughts about the activity such as, "What was the easiest/hardest part of playing hockey?"

When children are engaged in activities that they enjoy, and they are presented with multiple opportunities to hear novel words, see new signs and visual representations of the words and learn new gestures, they are more likely to acquire new vocabulary (Kaiser and Roberts 2013; Kashinath et al. 2006).

There are four steps to use when modeling motor vocabulary. First, the teacher should establish joint attention with the child. That means both the teacher and child must focus on the same thing. Second, the teacher should model the vocabulary word (e.g., spoken, sign, picture). Third, the teacher should wait 3–5 seconds for the child to respond (i.e., imitate the model). Fourth, the teacher should provide feedback based on the child's response (Meadan et al. 2014). It is essential that the teacher provides a model that matches the child's communication skill level. For example, during a warm up activity, if a student who is working on using two-word utterances is looking at a basket of balloons and seems interested in holding or throwing them, the teacher can say, "red balloon" and wait 3 second for the child to respond. If the student says, "red balloon," then the teacher expands his or her phrase (i.e., "You want to throw the red balloon."). As the teacher gives the student a balloon, she or he says, "Here is a big red balloon."

In the above scenario, the student responded to the verbal model, however, some children with developmental disabilities may not respond following an initial model. In the case of a child who does not respond in a reasonable time frame (e.g., 3–5 seconds) or after a few models, the teacher should repeat the model and give the object to the child, therefore keeping the interaction positive while providing the child with multiple opportunities to hear the phrase "red balloon."

Ask Motor Related Questions

Structured motor programs generally include several core activities. Therefore, transitions between activities would be required which can provide multiple opportunities for teachers to ask motor or activity related questions. Adult-initiated questions can take three forms depending on a child's communication abilities. These forms include: open-ended questions, choice questions, and "tell me/show me" instructions (Kashinath et al. 2006; Meadan et al. 2014). Open-ended questions are questions asked in a way that allow children to respond in multiple ways rather than simply answering a yes/no question, nodding their head, or responding with the "correct" answer (i.e., "What color is this?"). Questions framed as *what, who, where, how*, and *why* are types of open-ended questions that teachers can ask during physical activities. For example, during a warm up activity, a teacher might ask, "How do we lunge?" or "What does stomping look like?" or "How is a stomp different than a tiptoe?"

Providing choice questions is another strategy that enables children to choose an object, exercise, or activity which they prefer or are most interested in doing (Mobayed et al. 2000). During a motor program a teacher might ask, "Do you want to throw or catch a ball?" or "Do you want to jog or hop?" Lastly, "tell me/show me" instructions encourage children to use their words, signs, or gestures to describe or demonstrate a specific motor behavior, physical activity, or cool down exercise. For example, during cool down a teacher might say, "Leslie, what should we do next?" and expect Leslie to share an idea for a cool down activity (e.g., bend, stretch, do a yoga pose). It is important for teachers to match their prompts with a child's communicative level or provide a prompt that is slightly above the child's current level (i.e., zone of proximity).

Before the children hop like bunnies, Ms. Haslet asks them, "What does a bunny do?" She waits 5 second for a response. After 5 second, Mia who uses a two-word utterance to communicate with others says, "Bunnies down" as she hops on her spot to show what bunnies do. Ms. Haslet expands on Mia's language and says, "Yes, bunnies hop up and down." After everyone hops a few times as they chant, "Hopping bunnies, hopping bunnies," Ms. Haslet says, "Freeze" and asks Lily, who was hopping, "Do bunnies hop or gallop?" When Lily does not respond, Ms. Haslet repeats the question and waits a few more seconds. After receiving no response from Lily, Ms. Haslet prompts her by modeling "Bunnies hop." Ms. Haslet asks the same questions using the same steps in the following three motor sessions. After a few sessions, she hears Lily, saying, "hop" as she hops on her spot. Ms. Haslet responds happily, "Yes, Lily, bunnies hop" and asks everyone to hop five more times.

Use Fill in the Blank Strategy

Planning a delay or pausing during a predictable physical activity may serve to promote children's communication. Giving children opportunities to fill in the blank in a song or common phrase during a physical activity encourages them to complete a sentence or a song with words or vocalizations that they know and have used before. This strategy provides preschoolers with opportunities to practice communication skills and use their imagination while filling in the blank with a recurring motor movement along with rhyming chants and/or songs (e.g., "Hopping bunnies, hopping bunnies, hop, hop, hop"). This strategy also emphasizes children's success while minimizing the need for teacher corrections (Harjusola-Webb and Robbins 2012; Meadan et al. 2014).

When using the fill in the blank strategy, teachers should wait 3–5 seconds to provide an opportunity for a child to initiate. The fill in the blank strategy should only be used

when a child is familiar with the routine or songs and knows what to expect. If the child does not communicate during the pause, the teacher should simply model the word, phrase, or gesture and continue with the song or routine. Interactions should always remain positive, even when children do not fill in the blank since the goal is to support positive communicative interactions, not force compliance or engage in negative exchanges. For example, some physical activities include singing a warm up and cool down song that children sing together. Repeating the same songs during each physical activity session can help children learn them quickly and join the teacher in singing them. A preschool teacher can pause while singing a familiar song to encourage children to fill in the words. For example, while the class is singing, "Snowflake, snowflake, jog around, jog around, keep on jogging, keep on …" the teacher might pause to encourage her students to continue singing without her leading them. If the teacher does not hear her students say, "jogging" she would prompt them with, "What are we doing?" "I can't hear you!" until she hears them say, "jogging." The teacher would then continue with the next stanza of the song.

Reinforce and Prompt Child Communication

Children with disabilities might rely on reinforcement, descriptive feedback, and prompts to maintain their communication skills (Akamoglu et al. 2016). Reinforcing child responses and providing positive and descriptive feedback during physical activities includes making positive comments about a child's communicative behavior, while prompting includes encouraging children to respond to communication and initiate communication (Lane et al. 2016). When a teacher provides positive feedback after children use vocalizations, words, and other methods of communication, a child is more likely to use them again in the future. Positive attention for communication can create more opportunities for children to practice and develop those skills. Examples of positive attention include giving a child a smile or hug, or verbally responding to their communication actions by saying, "*Thank you for using your words to tell Eli how to use the bat*" and "*Great job asking for a turn*," which in turn can increase the likelihood of future communication acts (Harjusola-Webb and Robbins 2012; Pretti-Frontczak and Bricker 2004).

After a few physical activities are completed, the children are ready to cool down. Ms. Haslet asks everybody to sit down on the floor. She starts by showing her students how to bend and stretch their arms and she asks everyone to sing along with her, "This is the way we bend and stretch, bend and stretch, bend and stretch. This is the way we bend and stretch at the end of the day." The students and Ms. Haslet switch arms and repeat the same song. Suddenly Ms. Haslet says, "Freeze" as she looks at Lily and prompts, "Lily, this is the way we bend and …" She looks at Lily expectantly, and within 3 second Lily vocalizes, "stret…" Ms. Haslet praises her stating, "Yes, 'stretch' Lily. You are learning the cool down song!"

Conclusion

Engaging in physical activities during the preschool years is a critical part of a young child's development. Communication skills can be taught in natural environments through structured motor activities when preschool teachers intentionally integrate communication strategies into structured motor programs and other physical activities throughout the day. The ongoing inclusion of communication objectives in physical activities is likely to result in new receptive and expressive skills for children with a range of abilities.

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