

SKIPing toward an Active Start

Promoting Physical Activity in Preschoolers

Jacqueline D. Goodway and Leah E. Robinson



Project SKIP emphasizes developing competence in fundamental motor skills and promoting children's accurate perceptions of their physical competence.

THE UNITED STATES IS EXPERIENCING A DRAMATIC INCREASE in the number of children who are overweight and a significant decline in children's overall physical activity (Goran 2001). Some early childhood teachers may question these findings, pointing out that the children they teach are energetic and active. Of course, young children *are* active, but sometimes early childhood classrooms provide little outlet for their energy. There are many important things to consider in giving children an active start. As educators we must realize that physical activity patterns developed in childhood tend to last throughout adulthood (Janz, Dawson, & Mahoney 2000). The early years are critical not only to the development of motor skills but also for the development of a disposition for regular physical activity throughout life (Goodway & Branta 2003; Payne & Isaacs 2005). For this critical time frame, from birth to five years, the National Association for Sport and Physical Education (NASPE) has developed physical activity guidelines. Its *Active Start* position statement recommends that preschoolers "should engage in daily physical activity that promotes health related fitness and movement skills" (NASPE 2002, 2).

The SKIP program

Over the past 15 years, at Ohio State University we have developed and implemented Project SKIP (Successful Kinesthetic Instruction for Preschoolers), a motor skill program for children considered at risk for developmental delays and/or educational failure. Project SKIP emphasizes developing competence in *fundamental motor skills* (see p. 3) and promoting children's accurate perceptions of their physical competence. The program is culturally sensitive and integrates early childhood standards into its goals and activities.

In our assessment of Project SKIP, we have found ways to infuse regular physical activity into early childhood classrooms; witnessed significant improvement of motor skills and perceived physical competence of children receiving the curriculum; seen remediation of motor delays; and developed strategies to educate teachers about the importance of physical activity and the means to promote an active start (Goodway & Branta 2003). This article shares



Jacqueline D. Goodway, PhD, is an associate professor of motor development and elementary physical education pedagogy at Ohio State University (OSU) in Columbus. Her research focuses on motor skill interventions with preschool children from families with low incomes. She is former chair of the Motor Development Academy of the National Association for Sport and Physical Education.

Leah E. Robinson, MA, is an OSU graduate student studying sports and exercise education. Her research focuses on the growth and motor skill development of preschoolers, especially girls and children from families with low incomes.

Illustrations by Sandi Collins.

some of the core premises of Project SKIP and a few of the many activities that can be easily incorporated into an early childhood setting.

Premise

1

Fundamental motor skills are the building blocks of movement

Fundamental motor skills are the ABCs of movement. These basic skills are broken into two



© NAEYC



© Ellen B. Senisi

categories. *Locomotor skills* involve moving the body from one point to another. When children run, gallop, skip, hop, leap, slide, and jump, they are using locomotive skills. *Manipulative skills* involve moving objects with hands and feet. Children use manipulative skills to catch, throw, kick, roll, dribble, and strike or bat. Children need to develop basic competency in fundamental motor skills for games, sports, and lifetime physical activity. For example, a child who can catch a ball is more likely to succeed at sports such as softball or basketball in which catching is a critical skill.

The research is clear that children develop competency in their fundamental motor skills during the early childhood years (Payne & Isaacs 2005). During this time period, many children do not receive the appropriate kinds of experiences to develop these skills and may start kindergarten with developmental delays in this area (Goodway & Branta 2003).

Premise

2

Fundamental motor skills must be taught and reinforced—they are not automatic

A common misconception is that young children just naturally learn how to run, throw, and catch with competence (Goodway & Branta 2003; Payne & Isaacs 2005). However, as with many other skills, young children must learn and practice these skills until they can proficiently participate in a variety of games and sports. Some children seem to have an innate talent in this area. Howard Gardner, in his theory of multiple intelligences (1983, 1999), which outlines eight different types of intelligence including bodily kinesthetic

A common misconception is that young children just naturally learn how to run, throw, and catch with competence.

intelligence, refers to these children as “body smart.” Children with a talent for motor skills develop these skills without much assistance from adults, but the majority of children do not (Goodway & Branta 2003). Motor development delays tend to be common among children from low-income and urban families with limited resources who live in areas with few places to be active (Goodway & Branta 2003; Goodway, Crowe, & Ward 2003; Goodway & Smith 2005).

One way to conceptualize motor skill development in early childhood has been to look at developmental sequences of fundamental motor skills. For instance, there are five stages to throwing, five stages to catching, four to running, and three to skipping (Payne & Isaacs 2005). We will not describe in detail all the stages in this article, but Payne and Isaacs (2005, 310–74) provide an excellent overview of the relevant skills. (See “Fundamental Motor Skills.”) Teachers must understand these developmental sequences if they are to plan instruction that addresses each child’s developmental status and encourages progress.

Fundamental Motor Skills

Locomotor Skills	Object Control Skills
Walk	Overarm throw
Run	Two-handed catching
Jump	Striking
Hop	Ball bouncing
Gallop	Kicking
Skip	Punting

(Payne & Isaacs 2005)

Premise

3

Consider learner characteristics and modify the task and environment to promote physical activity

The ability to perform a motor skill depends on the interaction between *learner*, *task*, and *environment* (Newell 1986). A child’s personal characteristics, motivation, previous motor skill experience, strength, balance, and other factors can influence motor skill performance. One of the teacher’s greatest challenges is to meet the needs of individual children who vary widely in their motor skill levels. To account for these variations in performance, it is necessary to modify the task and the environment to challenge each child at an

appropriate level. Below are some ways in which teachers can make a task easier or harder, allowing a group of children to work on one skill at varied levels of challenge. Through this approach, teachers can tailor any task to meet individual developmental needs so that every child can experience and develop motor skill competence. Here are some examples of modifications:

- **Throw:** Alter the distance from target (close to far) or the target type (large to small or stationary to moving).
- **Catch:** Vary the size and texture of the ball used (large and soft to small and hard) or the tossed distance (near to far).
- **Strike:** Modify the type of bat a child can use—no bat (child uses hand), short bat or paddle, long thin bat, wide bat, or thin bat; offer balls of different sizes (large to small); change movement of the ball (stationary, on a tee, to tossed).



© Ellen B. Semisi



© Ellen B. Senisi

Because most preschool classrooms have activity centers, it is relatively simple to add a center for motor skills.

Activating your classroom

The three core premises described above serve as the foundation for a successful motor skill program. To encourage motor skill development, teachers need to offer appropriate equipment and build structured physical activity routines into each day. There are many ways to activate preschool classrooms and promote physical activity and motor skill competence. Here are a few ideas from Project SKIP.

Activity centers. Because most preschool classrooms have activity centers, it is relatively simple to add a center for motor skills. Motor skills centers encourage children to be active in a fairly small area. When designing a motor skills center, consider the following:

- Set up the center in a safe area with a wall on at least one side or, better yet, in a corner and with a nonslip rug or carpet underneath.
- Check the area for safety and set boundaries (using tape) so the children will learn to play within the space.
- Hang different activity posters to expose children to a variety of movement possibilities. Change the posters every three to four days.
- Vary the equipment and tasks to offer a range of difficulty levels that meet the developmental needs of the children. Some ideas for motor activities in classroom centers include making a people alphabet (children try to make their body into the shape of different letters, by either standing or lying on the floor), doing animal walks, tapping a balloon or foam ball with paddles, playing partner/individual toss-and-catch with different size foam balls. (Visit www.pecentral.com for more activities.)

With appropriate reinforcement and structure, preschoolers can safely engage in motor activities in the classroom. Teachers will find the center well-used, and children will add many ideas of their own to the activities provided.

A major national goal of the Centers for Disease Control and Prevention, the Surgeon General, and the American Medical Association is to increase the amount of physical activity children and adults get during the day. There are lots of ways to do this in preschool classrooms. Research has shown that it is not necessary to exercise for long bouts of time to obtain health benefits; we can engage in physical activity in smaller increments throughout the day. Here are some ways to get children moving (DHHS 1996).

Move-it groove-it breaks. After a period of more sedentary classroom activities, put on some fun music and get the children moving and grooving to the beat. Encourage a variety of movements to get the heart pumping for five to nine minutes. Invite children who are doing something unique to share with the rest of the group. Afterward, ask the children if they can feel how fast their heart is beating. Explain that the heart is a muscle and exercising makes it strong and healthy. Incorporate many move-it groove-it breaks throughout the day; set a timer to remind everyone that it is time to move again.

Pump those muscles. Dumbbells promote muscular strength and endurance. To make dumbbells, fill a 2-liter plastic bottle or 16-ounce water bottle with rice, beans, or sand and attach to an old broom handle. Vary the filling to create dumbbells of different weights (up to two pounds). Photocopy and laminate pictures of exercises for children (they love to imitate adults). Here are just a few dumbbell exercises:



© Ellen B. Senisi

- **Push to the Sky (shoulder press):** Standing with dumbbell in both hands at shoulder height, push the dumbbell above the head until the arms are straight.
- **Lunges:** Standing with legs shoulder-width apart and holding dumbbell in hands, take a long step forward with one foot; then push off that foot back to a standing position.
- **Sit on a Pretend Chair (squats):** Standing with legs shoulder-width apart and holding dumbbell in hands, sit into an imaginary chair and then stand back up.
- **Arm Lifts (arm extensions):** Standing with legs shoulder-width apart, hold dumbbells in hands with arms resting on the legs. Lift the arm up to horizontal in front of the body and then back to the leg. Repeat.
- **Around the World (abdominal twist):** Standing with legs shoulder-width apart, hold dumbbells with arms bent and dumbbells close to chest; then turn and twist from side to side.

Movement activities that promote academic concepts

Literacy and mathematics concepts can be easily taught in an active manner, and physical activities can be incorporated into any theme. Young children love to learn in this way. Here are two examples.

Literacy and mathematics concepts can be easily taught in an active manner, and physical activities can be incorporated into any theme.

Literacy: Animals in the rain forest. Read a book on the rain forest and talk about the animals that live there. Explore how each animal moves: for example, monkeys jump around and move alternately on their hands and feet; parrots run around flapping their wings and hummingbirds flap even faster; snakes slide and slither or balance upright. Then talk about how trees in the rain forest are being cut down and how the animals are losing their homes. Pretend to be a tree (stand with hands above head and sway) or a lumberjack (gently “chop” at the base of the tree until it falls down). Let children choose whether to be a tree or an animal, and select a lumberjack. The animals move around until the teacher says it is nighttime and they must find a tree to sleep in. Gradually, as the lumberjack cuts down the trees, fewer animals are able to find a home.

Math: Number necklace games. Punch a hole near the lip of a paper plate and string a ribbon from it so the child can wear the plate like a necklace. Write a number from 1 to 10 on the plate using one of the four number representations: (1) written numbers; (2) 10-square (a grid made up of 10 boxes with

Childhood obesity and physical inactivity are clearly major concerns these days, and everyone in the educational community needs to be part of the solution. So, while children are still young, let us help them develop motor skill competence and a love of being physically active.

dots); (3) fingers raised on hands; or (4) dots like on a domino. To promote number recognition let the children choose a number necklace and walk briskly around the classroom. Call out a number and give the children a command: for example, “If you are a number two, start hopping” or “If you are a five, start skipping.” You can also ask children to find someone with the same number they have; find a larger or smaller number; touch someone with a specific number; hold hands to make a number with simple addition; or form a number line (1, 2, 3, and so on). (See Goodway et al. 1999 for further ideas with number necklaces.)

Conclusion

Numerous wonderful resources are available and many of them are free to get children in your classroom moving. Public libraries offer movement tapes/CDs and DVDs. With the children, you can create lots of movement equipment, such as sock balls, bats, and targets (visit www.pcentral.org/preschool/prekhomeadequipmentmenu.html for many more ideas). The important thing is to begin to infuse regular physical activity in every classroom every day. Childhood obesity and physical inactivity are clearly major concerns these days, and everyone in the educational community needs to be part of the solution. So, while children are still young, let us help them develop motor skill competence and a love of being physically active. All it takes to encourage an active start is a little time and imagination and a commitment to a healthy lifestyle.

References

- DHHS (Department of Health and Human Services). 1996. Physical activity and health: A report of the Surgeon General. Atlanta, GA: Centers for Disease Control and Prevention. Online: www.cdc.gov/nccdphp/sgr/sgr.htm.
- Gardner, H. 1983. *Frames of mind: The theory of multiple intelligences*. New York: Basic.
- Gardner, H. 1999. *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic.
- Goodway, J.D., & C.F. Branta. 2003. Influence of a motor skill intervention on fundamental motor skill development of disadvantaged preschool children. *Research Quarterly for Exercise and Sport* 74: 36–47.
- Goodway, J.D., H. Crowe, & P. Ward. 2003. Effects of motor skill instruction on fundamental motor skill development. *Adapted Physical Activity Quarterly* 20: 291–314.
- Goodway, J.D., M.E. Rudisill, M.L. Hamilton, & M. Hart. 1999. Math in motion. In *Mathematics in the early years, birth to five*, ed. J.V.Copley, 175–81. Reston, VA: National Council of Teachers of Mathematics.
- Goodway, J.D., & D.W. Smith. 2005. Keeping all children healthy: Challenges to leading an active lifestyle for preschool children qualifying for at-risk programs. *Family and Community Health* 28 (2): 142–55.
- Goran, M.I. 2001. Metabolic precursors and effects of obesity in children: A decade of progress, 1990–1999. *American Journal of Clinical Nutrition* 73: 158–71.
- Janz, K.F., J.D. Dawson, & L.T. Mahoney. 2000. Tracking physical fitness and physical activity from childhood to adolescence: The Muscatine study. *Medicine and Science in Sports and Exercise* 32 (7): 1250–57.
- NASPE (National Association for Sport and Physical Education). 2002. *Active start: A statement of physical activity guidelines for children birth to five years*. Position statement. Reston, VA: Author.
- Newell, K. 1986. Constraints on the development of coordination. In *Motor development in children: Aspects of coordination and control*, eds. M.C. Wade & H.T. Whiting, 341–60. Dordrecht, The Netherlands: Nijhoff.
- Payne, V.G., & L.D. Isaacs. 2005. *Human motor development: A lifespan approach*, 6th ed. Boston: McGraw-Hill.