



Playing Is Learning

"Researchers are in universal agreement that play provides a strong foundation for intellectual growth, creativity, and problem solving. And it also serves as a vehicle for emotional development, and for the development of essential social skills. . . . Einstein knew the value of play all along when he said, ' . . . Play seems to be the essential feature in productive scientific thought—before there is any connection with logical construction in words or other kinds of signs that can be communicated to others.'" ¹

"When young children master abilities and skills through play, they not only develop confidence, a positive disposition toward learning, and a practical foundation for abstract learning, but they also exhibit a higher language level, more innovation, greater empathy and cooperation, better problem-solving strategies, and longer and greater attention spans (Smilansky 1990)-all essential characteristics of learning readiness (Ready for School Goal Team 2000). Greater attention span, an important asset in the primary classroom, develops as young children engage in longer periods of meaningful activity in a physically and mentally relaxed, receptive learning environment (Donaldson 1978)."²

Herbert Ginsberg, from Teachers College at Columbia University, "studied 80 children to see whether they naturally played in ways that used mathematical abilities. He found that in their free play, 46 percent of the time children were either sorting objects into sets (spoons here and forks over there) or counting objects or exploring patterns and forms."³

¹ Hirsh-Pasek, Kathy, Ph.D., and Roberta Michnick Golinkoff, Ph.D., with Diane Eyer, Ph.D, *Einstein Never Used Flash Cards: How Our Children REALLY Learn---and Why They Need to Play More and Memorize Less.* New York: Rodale Books, 2003., 214-15.

² Blaustein, Mari, "See, Hear, Touch! The Basics of Learning Readiness" Copyright © 2005 by the National Association for the Education of Young Children. <http://www.journal.naeyc.org/btj/200507/01Blaustein.asp>, 2.

³ Hirsh-Pasek, et. al., 55.

Professor Randal Jarrell, an expert on young children's mathematical thinking: "Play is vital to the development of children's mathematical thinking. Unlike some forms of knowledge, mathematical knowledge, which deals with relationships between and among things, cannot be learned by hearing adults talk about it. Experimental research on play shows a strong relationship between play, the growth of mathematical understanding, and improved mathematical performance. . . . Without play. . . children's powers of mathematical reasoning would be seriously underdeveloped."⁴

More About Play

What is play?

-It must be *pleasurable and enjoyable*

-It must have *no extrinsic goals*: fun for its own sake

-It must be *spontaneous and voluntary*, freely chosen by the player ("In fact, in one study, when a kindergarten teacher assigned her pupils a play activity, they thought it was work. Yet at other times, they described the very same activity as play!")

-It must include *active engagement* (not just watching)

-It must include a certain element of *make-believe*, children pretending or working with something in a non-literal way (like making roads or castles in sand)⁵

Is all play equal?

No! Remember how all of those parenting books recommended that you provide your child with blocks? Blocks are an example of *divergent play*, play with limitless possibilities. Other examples include modeling clay, dolls or action figures, or pretend games. In contrast, some toys and games are examples of *convergent play*, or play which requires a single outcome. Examples include a puzzle or many of the popular educational toys that ask for specific answers or prompt children to learn skills. In studies, children engaging in divergent play show more enthusiasm, creativity, and perseverance in solving tasks.⁶

What about pretend play?

Pretend play teaches children to think symbolically (this doll "stands for" a real baby), which is important for math and literacy (numbers and letters are symbols, too). Creating a fantasy and telling stories encourages literacy and creativity, and it allows children to work through difficult emotions. Pretend play with others offers children the opportunity to increase social skills like negotiation, cooperation, and directing others.

⁴ Ibid., 220.

⁵ Elements of play by Professors Catherine Garvey and Kenneth Rubin summarized in Hirsh-Pasek, et. al., 210-11.

⁶ Hirsh-Pasek, et. al., 223-25.