

Chopsticks and Counting Chips

Do Play and Foundational Skills Need to Compete for the Teacher's Attention in an Early Childhood Classroom?

Elena Bodrova and Deborah J. Leong

For the Chinese New Year, May's parents give her some sweets to share with her classmates. "Let's play Chinese restaurant," suggests the teacher after the children finish their snack. Children run to the housekeeping area and start emptying the cupboards. "But we don't have any Chinese food," remarks Taylor, examining plastic hamburgers. "No chopsticks," says Nita, holding up spoons and forks. "Can you pretend you have them?" asks the teacher. "How about using pencils as chopsticks and counting chips as food?" "No, I want to play family," answers Nita, settling into the familiar routine of stirring a pot as Taylor begins to place plastic hamburgers on the plates.

WHAT IS HAPPENING HERE? Why don't the children engage in a new play scenario? Should we worry about these children's apparent lack of pretend play skills, and if so, how can teachers intervene?

These might not be the most burning questions on the minds of preschool and especially kindergarten teachers. In an age of rising expectations and tougher academic standards, educators are more likely to pay attention to issues that seem to be more closely related to school readiness. "I used to have a lot more play," sighs a kindergarten teacher, "and now my principal does not understand why I want to keep the playhouse in my room. She thinks children should play at home and come to school to learn."

Elena Bodrova, Ph.D., is a senior consultant at Mid-continent Research for Education and Learning in Aurora, Colorado, and a research fellow at the National Institute for Early Education Research. She has more than 20 years of experience applying Vygotsky's theories in early childhood classrooms, focusing primarily on play and early literacy.

Deborah J. Leong, Ph.D., is a professor at Metropolitan State College of Denver and a research fellow at the National Institute for Early Education Research. Debbie has written about early childhood education assessment and prekindergarten standards and codeveloped the Tools of the Mind Research Project.

Photos courtesy of Elena Bodrova except as noted.

Why play belongs in the early childhood classroom

Would you agree with this principal's position? At first it does make sense—many preschool and kindergarten programs run for a half-day only, and spending time on play seems like a luxury. Maybe home is the place where play belongs. In our own memories we see ourselves spending a lot of time playing with our friends, and most of this play did take place outside the classroom. At that time it never occurred to teachers that they should provide any kind of support for children's play—it was taken for granted that most children knew how to play, and those who did not would learn from other children.

These nostalgic memories are probably the reason some teachers and school administrators are reluctant to consider play as important a part of the classroom as other activities. However, when asked to describe how children play today, most educators agree that play has in fact changed

from what it used to be 30 or even 20 years ago. Nowadays young children spend less time at home playing with their peers and more time playing alone, graduating from educational toys to video and computer games.

Nowadays young children spend less time playing with their peers and more time playing alone, graduating from educational toys to video and computer games.

When they do engage in sociodramatic play, children rarely try a new theme, preferring instead to act out the familiar scenarios of family, school, and doctor. Even books and TV shows filled with information about realistic as well as fantasy settings and characters often fail to inspire children to turn their housekeeping area into a space station or animal hospital. Teachers (as well as families) comment that today's children tend to rely on realistic toys and props, and they have a hard time using their imaginations to invent a substitute for a prop they do not have. Children often resort to repeating aggressive actions over and over again instead of developing involved play scenarios.

“What a wonderful castle!” exclaims the teacher as she admires a structure Esai and Spencer have just completed in the block area, “Do you want to play knights and dragons?” continues the teacher, reminding the boys about the book they read in class. “I see you have enough knights in your castle, and it is strong enough to protect them from the biggest dragon.” The boys seem puzzled. “We do not have any dragons,” says Esai after a long pause. Spencer looks around to see if there are some dragons. He glances at the science area where numerous boxes of plastic dinosaurs and crocodiles are stacked under the reptiles poster. He looks back at the teacher. “No, we do not have any dragons,” Spencer says.

The home and classroom experiences of many children may not be sufficient to produce the rich, imaginative play that has long been considered an inherent characteristic of early childhood. Many factors contribute to this state of affairs:

- changes in the social context (children spend more time in the company of same-age peers who may not be as effective play mentors as older siblings or friends);
- increasing academic demands of preschool and kindergarten programs; and
- the tendency of toy manufactures to produce ever more realistic playthings.

To combat these negative factors, early childhood teachers would need to support play development at least at the same level as they support the development of fine motor skills or phonemic awareness. But it is hard to expect all early childhood teachers to follow this advice because, outside of the early childhood community, play is not universally recognized as a medium for learning.

“I am finding myself between a rock and a hard place,” admits a former preschool teacher who now writes books for the parents of young children. “Because I work for a publishing company, I need to meet the demands of our customers. However, being an early childhood educator, I know that if I write only what is in



© BmPorter/Don Franklin



demand, it would not be right for the children. All parents want now are worksheets, and they want them in their babies' hands as early as possible."

In practice, the need to promote foundational skills, such as phonological awareness or listening comprehension, in young children and the need to support their play appear to be competing for teachers' time and attention. But in theory it should not be this way. Research on play accumulated over the past several decades makes a convincing case for the benefits of supporting a high quality of pretend play. A number of studies show the links between play and many foundational skills and complex cognitive activities such as memory (Newman 1990), self-regulation (Krafft & Berk 1998), distancing and decontextualization (Howes & Matheson 1992; O'Reilly & Bornstein 1993; Sigel 2000), oral language abilities (Davidson 1998), symbolic generalization (Smilansky & Shefatya 1990), successful school adjustment (Fantuzzo & McWayne 2002), and better social skills (Corsaro 1988).

In many of the recent studies focusing on the relationship between play and literacy, play interventions resulted in an increase in children's use of literacy materials and their engagement in literacy acts, as well as gains in specific literacy skills such as phonological awareness (for a review of the research, see Roskos & Christie 2001). Not only does play help children develop skills and concepts necessary to master literacy and math, it also builds the foundation of more general competencies that are necessary for the children to learn successfully in school and beyond.

Considering what we know about the effects of play on young children's learning and development, the



disappearance of play from early childhood classrooms looks even more alarming. As the opportunities for children to engage in high-quality play outside school be-

come less and less common, early childhood teachers might soon be children's only play mentors.

The task of supporting play while making sure children meet school expectations may seem impossible, especially given the constraints of a typical early childhood program. However, we believe it can be done.

During our years of work with preschool, Head Start, and kindergarten teachers, we found that knowing the characteristics of high-level play and being able to support these characteristics not only results in richer, more imaginative play but also has a positive effect on the development of foundational skills, including cognitive and emotional self-regulation and the ability to use symbols. These foundational skills in turn make it possible for the children to achieve higher levels of mastery of specific academic content, such as literacy (e.g., Bodrova & Leong 2001; Bodrova et al. 2003).

Studies show the links between play and many foundational skills and complex cognitive activities such as memory, self-regulation, distancing and decontextualization, oral language abilities, symbolic generalization, successful school adjustment, and better social skills.

The Vygotskian approach to play

Our analysis of play is based on the works of Lev Vygotsky and his students (Bodrova & Leong 1996; Bodrova & Leong in press). While Vygotsky's views of play are familiar to the Western educational community (e.g., Berk 1994; Berk & Winsler 1995), the work of his students, Daniel Elkonin in particular, is relatively unfamiliar in the West.

Elkonin [1904–85] is known in the United States primarily through the use of Elkonin Blocks in Reading Recovery and other remedial reading programs. In Russia, Elkonin's research (1978) on phonemic awareness is only part of his legacy; his study of play is another substantial contribution to the field.

Having studied learning in primary grade students and younger children, Elkonin was a strong opponent of lowering the school-entry age in Russia. He argued that not only would it not help increase student achievement, it would also result in pushed-down curriculum and the elimination of play from the lives of preschoolers and kindergartners. As an alternative he developed a highly successful curriculum for the primary grades that allows elementary school teachers to teach all requisite skills and concepts without adding more academic content to the existing preschool and kindergarten curricula.

Elkonin identified four principal ways in which play influences child development. All four expected outcomes of play activity are important for preparing the foundations for subsequent learning that takes place in primary grades (Elkonin 1977, 1978).

1. Play affects the child's motivation. In play, children develop a more complex hierarchical system of immediate and long-term goals. In fact, play becomes the first context where young children demonstrate their ability to delay gratification—something preschoolers are known to struggle with in most other situations.

2. Play facilitates cognitive decentering. The ability to take other people's perspectives is critical for coordinating multiple roles and negotiating play scenarios. Assigning different pretend functions to the same object involves cognitive decentering. This newly acquired competency will later enable children to coordinate their cognitive perspectives with those of their learning partners and teachers. Eventually this ability to coordinate multiple perspectives will be turned inward, leading to the development of reflective thinking and metacognition.

3. Play advances the development of mental representations. This development occurs as the result of a child separating the meaning of objects from their physical form. First, children use replicas to substitute for real objects; then they use new objects that are different in appearance but can perform the same function as the object prototype. Finally, most of the substitution takes place in the child's speech with no objects present. Thus the ability to operate with symbolic substitutes for real objects contributes to the development of abstract thinking and imagination. (It is important to note that Vygotskians believe that imagination is an expected outcome of play, not a prerequisite for it.)

4. Play fosters the development of deliberate behaviors—physical and mental voluntary actions. The development of deliberateness in play becomes possible because the child needs to follow the rules of the play and because play partners constantly monitor each other to make sure that everyone is following the rules. At first, this deliberateness is demonstrated in physical actions (for example, a child moves on all fours when playing a cat or stays still when playing a guard), social behaviors, and changing speech registers in language use. Later, this deliberateness extends to mental processes such as memory and attention.

According to Vygotskians, only when these four outcomes are in place can a young child profit fully from academic activities. If these foundations are missing, the child may experience various difficulties adapting to school, be it in the area of social interactions with teachers and peers or in the area of content learning.



The kind of play that helps children develop all four foundations is defined by the combination of the imaginary situation children create (a scenario), roles for the people and perhaps objects, and rules about what the players can and cannot do in the scenario (Vygotsky [1966] 1977; [1930-35] 1978). Outside the Vygotskian framework, this kind of play is often labeled sociodramatic play, role play, or pretend play to distinguish it from other playlike activities such as stacking blocks on top of each other or playing games.

By the time children turn four, they are capable of engaging in this kind of complex play with multiple roles and symbolic use of props. However, in reality many preschool- and even kindergarten-age children still play at the level typical of toddlers, spending most of their play repeating the same sequence of actions as long as they stay in the same role. We use the term *immature play* to distinguish this play from *mature play* that should be expected of older preschoolers and kindergartners. Although mature play does in fact contribute to children's learning and development in many areas, immature play does not provide these benefits.

It seems to us that in many instances when parents or school administrators propose replacing play in an early childhood classroom with more academic activities, they are prompted by the fact that the play they see in these classrooms is actually happening at an immature level. It is hard to argue for the value of play that is repetitive and unimaginative.

Following Vygotsky's principle of learning leading development (Vygotsky [1930-35] 1978), we designed a system of interventions to scaffold play in children who for some reason did not receive adequate support for their play at home or at school (e.g., Bodrova & Leong 2001; Bodrova et al. 2002). Each strategy targets one or more characteristics of mature play. This article shares some of our insights into how early childhood teachers can promote mature play.

they practice *operations on meanings* that are mentally more sophisticated than operations on real objects. It is apparent, however, that the cognitive benefits of engaging in imaginary actions depend on the kinds of props and toys children use: realistic and specific props do not require a great deal of imagination.

A good way for teachers to support the development of imaginary situations is to provide multipurpose props that can be used to stand for many objects. For example, a cardboard box could be a computer in the office, a sink in the kitchen, or a baby crib for a doll in the nursery. An advantage of these nonspecific props is that children must use more descriptive language when interacting with their play partners: unless they describe what the object stands for and how it will be used, the other children will find it hard to follow the change in meaning of the object from one play use to the other.

Another alternative to providing realistic play props is to encourage children to make their own. For example, instead of using plastic hamburgers and fried eggs in a pretend restaurant, children can make their own play food with playdough and other art materials.

Some children may not be ready to make their own props or to play with unstructured objects. They will not play unless there are some realistic props available. For these children, teachers need to introduce symbolic use of objects gradually—both in the play area and outside of it. In the play area the teacher can start with realistic props to keep play going and then add other materials that are increasingly less realistic. For example, a pretend grocery store can combine realistic props (grocery cart, scale, cash register) with some that are generic (boxes, plastic bags) and some that are open-ended (pieces of paper that can be used for play money, coupons, or shopping lists).

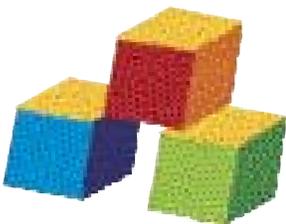
Outside the play area, teachers can use additional strategies to help children create and maintain the imaginary situation. These can be used during group time or in a center with four or five children. For example, teachers can show the children common objects and brainstorm how they can use these things to stand for something different: a paper plate looks like a Frisbee to one child, a flying saucer to another, and a pizza to yet another.

After all the children learn how to transform real objects into pretend ones, the teachers could extend the game by limiting the choice of props to a specific

An advantage of these nonspecific props is that children must use more descriptive language when interacting with their play partners.

Helping children create an imaginary situation

When children create an imaginary situation, they assign new meanings to the objects and people involved. As a result



play theme. The paper plate would become something that could be used in a spaceship: an instrument dial, a steering wheel, or a round window. When playing this game, it is important to encourage children to use both gestures and words to describe how they are using the object in a pretend way. In some cases, teachers can place the objects used for the game in the play area so children can use them in the new ways in later play.

Helping children act out various roles

In mature play the set of roles associated with a theme is not limited and stereotypical but is easily expanded to include supporting characters. Playing hospital does not mean the only roles are those of doctor and patient. A nurse, lab technician, dietitian, and pharmacist can also participate. Patients can bring their parents or children with them; they can be brought by an ambulance driver or the pilot of an emergency helicopter.

Being able to choose among a variety of roles decreases the number of disagreements that are common when several children want to be the doctor and nobody wants to be the patient. In addition, when children get to play different roles in different scenarios, they learn about social interactions they might not have in real life (following commands and issuing them; asking for help and helping others; being an expert and being a beginner).

The ability of young children to act out various roles depends on their familiarity with what people do in different settings, how they interact with each other, what kinds of tools they use, and so on. Children are not likely to gain all this knowledge on their own. Teachers can help children expand the number of themes in their play and the number of roles associated with different play themes.

Field trips, literature, and videos are wonderful sources for expanding children's repertoire of play themes and roles. However, taking children on a field trip does not necessarily ensure they will incorporate this new experience in their play scenarios. The most common mistake is to focus children's attention on the *things* part of a field trip or video—what is inside a fire truck or what happens to the letters when they arrive at the post office. Instead, teachers should point out the *people*

part of each new setting—the many different roles people play in each setting and how the roles are related to each other.

Learning about new roles and the language and actions associated with each of them helps children reenact these new experiences in their play. For example, on a field trip to a historic train station, without the teacher's help, all the children notice is the large engine. But with the teacher's help, they can learn about the roles of engineer, stoker, and conductor. They can talk about the passengers boarding the train, stowing their luggage on the overhead rack, and giving their tickets to the conductor.

This attention to the people aspect of the field trip will translate into more complex play back in the classroom. When the focus is on the objects, children's

play may be limited by the number of appropriate props—imagine the difficulty of sharing one engineer's hat! However, when the focus shifts to the people and their roles, children can easily make up for the missing objects by substituting others or simply by naming them: Vincent says,

Teachers should point out the people part of each new setting—the many different roles people play in each setting and how the roles are related to each other.



“I am the engineer,” as he pretends to put on his engineer’s hat and then makes gestures as if he were holding on to a steering wheel.

Helping children plan their play

In mature play, children can describe to each other what the play scenario is, who is playing which role, and how the action will happen.

Marcie says, “Let’s pretend that I’m the teacher and these will be the students and you’ll be a student. Then we’ll read a book and sing our song together. Maggie [pointing to a toy bear] will be bad.” “No, I want to be the teacher,” says Jason. “OK, I’ll read the book first, and then you’ll be the teacher,” says Marcie.

During this planning period, Marcie and Jason discuss how to handle the fact that both of them want to be the teacher. To get children to the point where they can do this mature planning, teachers have to encourage children to discuss

- **the roles**—who they are going to be,
- **the theme of the play**—what they are going to play, and
- **how the play will unfold**—what is going to happen.

Teachers should set aside time to discuss this before the children enter the center. The children should focus on what will be played, who will be which person, and what will happen. At first the teachers will need to do some prompting, because children are used to discussing what they will play with or which center they will play in rather than the roles and themes of their play. Children who are going to the same center should discuss their plans with each other. We have found that children begin to use the discussion as a strategy for play itself. The planning helps children maintain and extend their roles.

Do play and foundational skills need to compete for the teacher’s attention in an early childhood classroom?

Our research shows that an emphasis on play does not detract from academic learning but actually enables children to learn. In classrooms where children spent 50 to 60 minutes of a two-and-a-half-hour program in play supported by teachers’ use of Vygotskian strategies to enhance play, children scored higher in literacy skills than in control classrooms (Bodrova & Leong 2001).

Because children could play intensely during their center time, teachers had more time for meaningful one-on-one interactions with children. Group times were short and sweet because all the children were able to participate and pay attention. There was more productive time to learn, more time to be creative, and more time to have fun! Teachers commented that there was little fighting, a lot of discussion, and more friendships as children had many more positive interactions with each other than in previous years.

Mr. Drews decides to promote mature play in his classroom by following up on the Chinese New Year. He finds a book on Chinese restaurants, and he plans a field trip to a local Chinese restaurant. He asks May’s parents to come to school to share the food that the family cooks and eats at home. He helps the children brainstorm the different restaurant roles—the cook, the person who seats you, the busboy, the customers. Children make their own food out of paper. They brainstorm the props that work best. Children’s play really begins to improve. The restaurant play spreads from housekeeping to other play centers as children call in their orders to the restaurant by phone.

Play does not compete with foundational skills: through mature play, children learn the very foundational skills that will prepare them for the academic challenges that lie ahead.

References

- Berk, L.E. 1994. Vygotsky’s theory: The importance of make-believe play. *Young Children* 50 (1): 30–39.
- Berk, L.E., & A. Winsler. 1995. *Scaffolding children’s learning: Vygotsky and early childhood education*. Washington, DC: NAEYC.
- Bodrova, E., & D.J. Leong. 1996. *Tools of the mind: The Vygotskian approach to early childhood education*. Englewood Cliffs, NJ: Merrill/Prentice Hall.
- Bodrova, E., & D.J. Leong. 2001. *The Tools of the Mind project: A case study of implementing the Vygotskian approach in American early childhood and primary classrooms*. Geneva, Switzerland: International Bureau of Education, UNESCO.
- Bodrova, E., & D.J. Leong. In press (August 2003). Learning and development of preschool children: The Vygotskian perspective. In *Vygotsky’s theory of education in cultural context*, eds. A. Kozulin, V. Ageyev, S. Miller, & B. Gindis. New York: Cambridge University Press.
- Bodrova, E., D.J. Leong, J.S. Norford, & D.E. Paynter. 2003. It only looks like child’s play. *Journal of Staff Development* 24 (2): 47–51.
- Bodrova, E., D.J. Leong, D.E. Paynter, & R. Hensen. 2002. *Scaffolding literacy development in a preschool classroom*. Aurora, CO: Mid-continent Research for Education and Learning.
- Corsaro, W.A. 1988. Peer culture in the preschool. *Theory into Practice* 27 (1): 19–24.
- Davidson, J.I.F. 1998. Language and play: Natural partners. In *Play from birth to twelve and beyond: Contexts, perspectives, and*

- meanings, eds. D.P. Fromberg & D. Bergen, 175–83. New York: Garland.
- Elkonin, D. [1971] 1977. Toward the problem of stages in the mental development of the child. In *Soviet developmental psychology*, ed. M. Cole, 538–63. White Plains, NY: M.E. Sharpe.
- Elkonin, D. 1978. *Psychologija igry* [The psychology of play]. Moscow: Pedagogika.
- Fantuzzo, J., & C. McWayne. 2002. The relationship between peer-play interactions in the family context and dimensions of school readiness for low-income preschool children. *Journal of Educational Psychology* 94 (1): 79–87.
- Howes, C., & C.C. Matheson. 1992. Sequences in the development of competent play with peers: Social and social pretend play. *Developmental Psychology* 28 (4): 961–74.
- Krafft, K.C., & L.E. Berk. 1998. Private speech in two preschools: Significance of open-ended activities and make-believe play for verbal self-regulation. *Early Childhood Research Quarterly* 13 (4): 637–58.
- Newman, L.S. 1990. Intentional and unintentional memory in young children: Remembering vs. playing. *Journal of Experimental Child Psychology* 50 (2): 243–58.
- O'Reilly, A.W., & M.H. Bornstein. 1993. Caregiver-child interaction in play. *New Directions in Child Development* 59: 55–66.
- Roskos, K. & J. Christie. 2001. Examining the play-literacy interface: A critical review and future directions. *Journal of Early Childhood Literacy* 1 (1): 59–89
- Sigel, I. 2000. Educating the Young Thinker model from research to practice: A case study of program development, or the place of theory and research in the development of educational programs. In *Approaches to early childhood education*, 3d ed., eds. J.L. Roopnarine & J.E. Johnson, 315–40. Columbus, OH: Merrill/Macmillan.
- Smilansky, S., & L. Shefatya. 1990. *Facilitating play: A medium for promoting cognitive, socio-emotional, and academic development in young children*. Gaithersburg, MD: Psychological and Educational Publications.
- Vygotsky, L.S. [1966] 1977. Play and its role in the mental development of the child. In *Soviet developmental psychology*, ed. M. Cole, 76–99. White Plains, NY: M.E. Sharpe.
- Vygotsky, L.S. [1930–35] 1978. *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Copyright © 2003 by the National Association for the Education of Young Children. See Permissions and Reprints online at www.naeyc.org/resources/journal.

