

Playful Learning: The Role of Play in Early Childhood Education Settings

December 17 - 18, 2009

Invited Guests

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Elena Bodrova, McREL Research and Evaluation
Ellen Frede, National Institute for Early Education Research
Joe Frost, University of Texas
Roberta Golinkoff, University of Delaware
Kathy Hirsh-Pasek, Temple University
Marilou Hyson, NAEYC and George Mason University
Angeline Lillard, University of Virginia
Rebecca New, University of North Carolina at Chapel Hill
Carolyn Palmer, Vassar College
Julie Riess, Vassar College
Laura Schulz, Massachusetts Institute of Technology
Juliann Woods, Florida State University

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Mary Bruce Webb, Office of Planning, Research and Evaluation
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I. Welcome: Setting the Stage

T'Pring Westbrook opened by welcoming everyone to the *Playful Learning: The Role of Play in Early Childhood Education Settings* meeting sponsored by the Office of Planning, Research and Evaluation. She thanked the National Institute on Child Health and Human Development (NICHD), the Office of Special Education Programs, and the Office of the Assistant Secretary for Planning and Evaluation for their planning assistance. This meeting developed from a background paper on play research, recognizing there is an evidence-based research gap in the Head Start Performance Standards and in technical assistance provided through the Department of Education. This meeting will assist the government is outlining steps to meet the needs of children in multiple systems, and in different systems, as they transition into kindergarten. Joan Lombardi (Administration for Children and Families) and Jacqueline Jones (U.S. Department of Education) offered introductory comments on how both agencies are striving toward the same goal of school readiness related to the role of play in early childhood educational settings.

Joan Lombardi congratulated the group for organizing the meeting on a topic that has been treated dichotomously in the recent focus on learning versus play; even the meeting title *Playful Learning* is an acknowledgement of moving beyond the dichotomy. Joan reflected on the background papers, and expressed fondness for the idea of “intentional interactions,” which moves toward a sustained interactive thinking process for both the teacher and the child (Siraj-Blatchford, 2009). Commenting on Hyson (2009), Joan focused on the concept of Approaches to Learning, one of the five core areas of school readiness, and the importance of persistence and curiosity in children’s learning as a new skill set required for global issues—a skill set that can be fostered through play. Joan concluded her remarks by challenging the group to systematically examine early childhood and professional development, program standards, and family engagement.

Jacqueline Jones expressed her support for the important topic of children’s learning and development related to play. The work being conducted by the guests moves the issue beyond advocacy into the realm of evidence-based research to guide policy decisions. As the Department of Education and Health and Human Services work together, it is clear that there are multiple domains of child development from birth to grade 3. Jacqueline posed these questions to the group: (a) What is the role of play in early learning? (b) How do you help the field understand how play is reflected in the early learning standards? (c) How are the standards implemented? (d) Does play enhance school readiness? and (e) At the classroom level, how do we help teachers implement play based instructional strategies?

Both Joan and Jacqueline offered suggestions on how to more widely disseminate their research findings to the policy community, including expert briefings or learning sessions which are held in both departments; research associations, such as

Society for Research on Child Development (SRCD); and state advisory councils which help create professional development standards.

The meeting participants introduced themselves. T'Pring reviewed the agenda and the session format, with presentations and a discussion period, which was designed to identify concrete next steps for a playful learning research agenda.

II. Children and Play

Facilitator:

Peggy McCardle, National Institute for Child Health and Human Development

Mandate for Playful Learning: Framing the Definitions and the Evidence

Kathy Hirsh-Pasek and Roberta Golinkoff

This presentation focused on how the issue of selecting a curriculum is often confounded with the issue of choosing a pedagogy to teach that curriculum. While there is no doubt that a curriculum is needed to teach the skills for school success, young children should be mostly taught in a playful manner rather than by direct instruction. Moreover, research has shown that early cognitive and social skills are malleable and can have both short- and long-term effects on school achievement. Playful learning is comprised of both *free play* and *guided play*. Children need to engage in free play to expand their language and social skills, but educators can also structure environments toward a curricular goal through guided play.

Guided play has two components. First, adults enrich the environment with objects/toys that provide experiential learning opportunities infused with curricular content. Second, in guided play teachers enhance children's exploration and learning by commenting on children's discoveries; by co-playing along with the children; through asking open-ended questions about what children are finding; or exploring the materials in ways that children might not have thought to do. Playful learning offers a mid-ground position to foster high quality preschool education. Research reviewed in *A Mandate for Playful Learning in Preschool* (Hirsh-Pasek, Golinkoff, Berk, & Singer, 2009) suggests that both academic and social outcomes are furthered using playful learning pedagogy. However, more rigorous research is needed to more fully understand what it is about playful learning that promotes academic and social outcomes.

Children and Play
Angeline Lillard

This presentation reviewed the state of playful learning research, noting that the process by which children learn through play has limited support and relies on non-experimental research designs. Two studies published in the journal *Science* examined preschool program outcomes using random assignment (Lillard & Else-Quest, 2006; Diamond, Barnett, Thomas & Monroe, 2007). Results suggest a balance of teacher-structured and child-initiated activity optimize important developmental outcomes, but future research might address: what happens neurally when children engage in pretense/fictional worlds; what crosses the real/pretend boundary; how is transmigration accomplished; is learning in play better, the same, or less good than learning in real; and when, and due to what aspects of play?

Discussion

The discussion focused on the implementation of play in the classroom and concerns on the part of some participants that current learning standards may create an environment in which direct instruction, including scripted activities, limits both the child's and teacher's ability to scaffold learning to additional situations. Programs that integrate a teacher-directed approach with child-centered learning offer a middle ground through guided play. Though it is not clear that the context is about play, approaches to learning dimensions cohere more readily in playful than non-playful environments (see Hyson, 2008). It was recognized that some curriculum developers are trying to create environments which standardize exposure for all children, including children from various socio-economic backgrounds and home language environments. The studies published in the *Science* journal (Diamond, Barnett, Thomas, & Munro, 2007; Lillard & Else-Quest, 2006) were conducted with children from low-income homes and who were English language learners.

The following questions were offered for future research consideration:

- What are the mechanisms that work best for children to learn through play?
- What is gained from direct instruction and lost from play?
- What outcomes can be linked to play, beyond the benefits obtained from individual or small group instruction in non-play settings/contexts?
- What aspects of the play situation contribute to child outcomes?
- What kinds of supports do teachers need to organize a classroom to facilitate play?
- What kind of variables, including mediators and moderators, should be measured and can be cost-effective in government sponsored research?

III. Embracing Play for All Children

Facilitator:

Christy Kavulic, Office of Special Education Programs

Cultural Perspectives on Children's Play: A question of means and meanings

Rebecca Staples New

This presentation focused on cultural perspectives of children's play, from historical and political aspects to play as a function of resources and imagination. In Western European countries, the expectations of early child learning are different than the pluralistic expectations in American society. For example, outdoor play is a birthright in Norway; play promotes gender equity and solidarity in Israel; and play is a part of life in Italy. When creating a prepared play environment, spaces should reflect other familiar places and tools, offer flexibility to foster creative play, engage children with materials and constructs, and challenge their developing abilities. Through play children learn to interact with materials and each other, become more autonomous as a member of a group, and appropriately exhibit self-expression and creativity. Play is not only for children, but can be utilized in adult learning and professional development.

Embracing Play for ALL Children

Juliann Woods

This presentation focused on early intervention play therapies for children with disabilities, specifically Autism Spectrum Disorder (ASD). A symbolic play intervention was implemented in which play was the independent variable. Using a multiple baseline research design across participants, children were exposed to play therapy four days per week for 8 – 12 weeks in 18 minute sessions within the child's early childhood special education classroom. The play environments were on the floor, near the pretend play area in the classroom. The toys in all environments were comparable and matched to the developmental level and child's interests. Results indicate children increased rates and levels/complexity of play (from non-symbolic play to symbolic play), children increased total expressive language scores from baseline to intervention, possible relation between language and play was observed, repetitive behaviors decreased in similar trend to increases in play signifying a possible relation, and independent play was observed in group times and areas. The implications for generalizing to early childhood classroom settings suggest play can be incorporated into the classroom, and not just as a reward; special, intensive toys and times are not required; and play promotes competence and independence in key learning domains.

Discussion

This discussion focused on communicating that play is learning. Early brain research has created a sense of urgency for parents who are not satisfied with their child "just playing." Parents often believe that play needs to be structured (e.g.,

flashcards, educational toys and media), or that it is not supportive of pre-academic learning. Several key elements of interventions for children with special needs can be generalized to the competencies of children who are typically developing, such as observing the child's current developmental competencies, carefully sequencing play therapy activities using materials available in the classroom, establishing peer partners in the classroom for instruction and modeling, offering brief interactions so that the child can focus and enjoy the activity.

The following questions were offered for future research consideration:

- Can future research examine play as an independent variable—play as the mechanism for self-regulation, problem solving and engagement?
- What benefits from play therapy for children with disabilities can be generalized to the early childhood population?
- How can practitioners communicate to parents and administrators that guided play is learning?

IV. Play in Context

Facilitator:

Layla Esposito, National Institute for Child Health and Human Development

Vassar Wimpfheimer Nursery School

Julie Riess

This presentation focused on the Wimpfheimer Nursery School, a child development research laboratory currently under renovation at Vassar College. The classrooms are structured around themes based on the children's interests; other times the teachers introduce a new idea to the children. The themes are created by the teachers, some of which have been stored for up to 15 years for use by other teachers who can contribute to and build upon the existing materials. Topics are introduced to explore and integrate through as many mediums as possible (e.g., literature, arts, math, science, dramatic play, model building) and to encourage the children to discover new avenues of learning. Teachers scaffold the child's learning by encouraging them to identify what they already know, make hypothesis, and give them the tools to test and evaluate their predictions. The Wimpfheimer Nursery School also provides mixed-age groupings to foster cognitive and social development in which older children create more complex play for younger children.

Discussion

The discussion focused on the generalizability of the features of this program, as well as other evidence-based curricula, to more challenged settings. The role of the teacher is an important factor for implementing play curricula in other programs, however, they may not have as many supports or resources as the research intervention classrooms. The experts nominated features they felt would contribute

most toward implementation fidelity, such as support and guidance on scaffolding child's play; provide them with developed themes and relatively scripted activities to reduce staff planning time; professionalize the field and create a sense that early child education is important work; and surround teachers with other caring adults. Finally, there was a discussion on conveying to parents the importance of play interactions in promoting children's learning.

The following questions were offered for future research consideration:

- What elements of curricula that incorporate play can be implemented in different types of settings, including family-centered, center-based, or home-based programs; Head Start programs; and state funded PreKindergarten as well as more inclusive environments to support children with disabilities and English Language Learner populations.
- What measures are reliable and valid for assessing learning in playful environments?
- What variables can be examined to evaluate effectiveness of playful learning environments, both immediate and longer-term impacts (e.g., teacher-child ratio, parent participation, medical care/access, high school graduation rates, and college entrance)?
- What resources are available to teachers? What is the teacher environment?
- What does the research suggest or discuss related to teacher motivation?

V. Teachers at Play (Teacher-Guided Play)

Facilitator:

Jim Griffin, National Institute for Child Health and Human Development

Harnessing the Power of Play with Intentional Teacher Support

Karen Bierman

The Head Start REDI project, funded by the Interagency School Readiness Consortium, is a classroom intervention built on research-based practices related to social-emotional competencies and language and emergent literacy. The intervention provides a curriculum base and mentoring program to support teachers' professional development and to promote the quality of cross-domain instructional practice. Professional development for the teachers included a 3-day training workshop, a mid-year 1-day booster training, weekly classroom visits from a REDI trainer, and a weekly meeting with the REDI trainer. Play was the primary context for social-emotional learning using PATHS (Promoting Alternative Thinking Strategies). Results show the intervention improved teaching quality and teacher language use and had significant effects on both child outcomes. More recent analyses on cross-over facilitation show an impact on positive impact on kindergarten adjustment. Curriculum evaluation suggests providing time to play is not sufficient and that intentional and strategic support is needed.

Teachers at Play: Tools of the Mind
Elena Bodrova

This presentation focused on a Vygotskian approach to play and described Tools of the Mind, a systemic play intervention designed to promote young children's intentional and self-regulated learning. Vygotsky identified three types of experiences that lead to the development of self-regulation: being regulated by another person, regulating other people, and self-regulating. Mature play is the combination of these experiences and Vygotsky posits is the only kind of play that positively affects child development. Unfortunately, the play that exists in many of today's early childhood classrooms does not fit the definition of mature play, likely due to a decrease in adult mediation of make-believe play. In Tools of the Mind, teachers scaffold children's self-regulation by modeling different pretend play roles and by helping children think of what might come next. The intervention has positive effects on the development of self-regulation and its relationship to child achievement in early literacy and mathematics.

Discussion

The discussion focused on teacher training and professional development. The REDI project found that the workshop only training was not as effective as ongoing mentoring for sustainability. Administrative support was also a factor which predicted program sustainability. For instance, elementary principals were identified as an important group to include in the public preschool implementation process because they may not be knowledgeable of early childhood education principles, a gap that may result in teachers receiving mixed messages on implementation. There was interest in examples of how technology can be used for teacher training and ongoing mentoring. Bob Pianta's My Teaching Partner houses a library of video vignettes teachers can access through the web; however, recording video vignettes for teacher feedback may present confidentiality issues in some programs. Teachers trained on implementing the Tools of the Mind elements of play for promoting child self-regulation reported less stress because they were spending less time on classroom management, feeling better about themselves and teaching, and completing fewer incident reports related to child behavior. In addition, the teacher retention rate has improved. Finally, there was a short discussion on measures to assess the effect of playful learning on self-regulation. The expert reflections on using the Head-to-Toes Task self-regulation measure (F. J. Morrison) with three-year-olds suggested mixed experiences. Clancy Blaire and Stephanie Carlson are currently receiving NICHD funding to develop age appropriate executive function measures.

The following questions were offered for future research consideration:

- In interventions that attempt to influence executive function, what differs across these interventions and how do they differ in outcomes?
- Are the findings a result of an explicit curriculum rather than a strategy implemented across curricula?

- To what extent do curricula focus on or integrate play interactions?
- How can technology be maximized to reduce training, mentoring and professional development costs?

VI. Play Policy

Facilitator:

Amy Madigan, Office of the Assistant Secretary for Planning and Evaluation

Playful Policies or Policies that Affect Playful Learning?

Ellen Frede

This presentation reviewed the types of policies that affect play, specifically program standards, learning standards, curricular options and monitoring and evaluation procedures. Program standards, such as Head Start Program Performance Standards, provide regulatory guidance on class size/ratio, classroom space and playground safety, length of the day, teacher qualifications and certification, assessment requirements, and training and technical assistance. Depending on the program type, early childhood settings may have federal or state learning standards which must be met, but none provide guidance on the teacher's role in play, outline benchmarks for play development, or frame outcomes with play as the context to demonstrate learning. Curricula may incorporate play, but often completing the lesson or activity is the stated goal. Finally, monitoring and evaluation procedures rely on instrumentation, child assessment batteries, or teacher report. Government evaluation research should incorporate funds for play observation for policy recommendations and development.

Playgrounds and Natural Habitats: A Magical Combination

Joe Frost

With a backdrop of outdoor play environments that incorporate natural habitats, this presentation offered some effects of play deprivation. First, the elimination of play has had health detriments, including increased rates of rickets, Type 2 Diabetes, and obesity in children. In the 2007 administration of the Cooper Fitness Test, dramatic differences were found between 3rd and 12th grade performance on strength, endurance, and flexibility (30% pass rate vs. 9%, respectively). Not only are children losing play time in education settings, but television, video games, and computers, along with stranger danger, contribute to outdoor play deprivation during out-of-school time. Communities should strive to staff playgrounds before, during and after school in a manner that integrates indoor and outdoor play at a level that will promote fitness levels in children.

Discussion

The discussion focused on how testing and learning standards have impacted play in learning environments. One suggestion offered was to approach play as a public health agenda, for short- and long-term impacts on children's health. By promoting physical fitness, outdoor play also can improve child development in the representations they form, executive function and delayed gratification, and overall health. In terms of policy implementation, some states are adopting ECERS to evaluate programs; however, ECERS is not a process measure.

The following questions were offered for future research consideration:

- What are the consequences of play deprivation?
- To what extent can play be promoted as a public health agenda?

VII. Setting a Play Research Agenda: Next Steps

Facilitator:

T'Pring Westbrook, Office of Planning, Research and Evaluation

Conceptualization and Measurement

One objective of the meeting was to frame the concept of playful learning, however, it is a complex concept influenced by child development principles, parental expectations, teacher abilities and responses, and cultural norms. With such a nebulous definition, measuring playful learning requires an overlapping research agenda in areas including cognitive development, executive function, social-emotional development, and health. Research efforts that would best serve the playful learning agenda would incorporate Type II experimental designs, multiple data collection techniques, sample diverse populations, and include long-term impacts.

Curriculum and Professional Development and Training

Curricula that claim to incorporate play in the learning environment should clearly outline the critical factors of play that develop the qualities and characteristics found to promote child outcomes. A challenge is how to enhance teacher's beliefs, preparation, and professional development on how to incorporate play in the classroom. Teachers need examples and images of teachers using evidence-based play practices with children. Video vignettes may provide a low-cost, but high impact medium for demonstrating playful learning in different environments and experiences. The videos could also illustrate teachers using various kinds of more directed instruction to examine how viewers interpret the teacher's role in play.

Collaboration and Dissemination

The group emphasized the importance of effective communication and collaboration across disciplines for the success of a playful learning agenda. Discussions of play often occur in separate "silos" with little communication across disciplines, but research in early childhood settings could be complemented by other fields, such as

pediatrics or neuroscience; interfacing with other groups with an interdisciplinary, developmental perspective can bring the focus on the value of play to the mainstream. In addition, the field can build upon the physical health research findings, which suggest health predicts cognitive performance, to encourage outdoor/physical play for children. Several avenues were offered for dissemination outlets, such as a web bibliography with comprehensive search criteria, a special journal issue (e.g., Early Childhood Research Quarterly, Child Development Monographs, Child Development Perspectives, Review of Educational Research, APA or APS Observer, and Topics in Early Childhood Special Education), symposia at meetings, summary articles, and whitepapers.

The following questions were offered for future research consideration:

- What are the advantages and disadvantages of didactic or playful learning? How, when or in what combination?
- What are the reasons that play might be helpful in promoting child outcomes?
- Does play enhance executive function or promote attention and engagement and how (basic science on exploratory and pretend play and how it effects conceptual change, executive function abilities, and social emotional processes)?
- How does the child respond to the rhythm of activities, such as a cortisol response to the daily schedule?
- What is the role of peer interaction and cooperative learning in children's development and learning?
- Do play curricula change the interactions among children and adults and affect the classroom setting, and in what ways?
- How does play reflect the quality of classroom setting?
- Are comprehensive or targeted playful-learning interventions better?
- What conditions support playful learning and when is it appropriate to use (e.g., socio-economic status, cultural diversity, special needs).
- What does play look like in ordinary practice, through an analysis of current programs to determine mechanisms, operational definitions of different types of play.
- What is currently working, such as an assessment in all states looking at outcomes based on information on how play is being used and how much play is being offered?
- Conduct both experimental and longitudinal research designs.
- Incorporate teacher training and development into the research design.

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