

PLAY

Play's Potential in Early Literacy Development

James F. Christie, PhD, Kathleen A. Roskos, PhD

Arizona State University, USA, John Carroll University, USA

June 2013, Rev. ed.

Introduction

Play in the preschool years has the potential to provide young children with a highly engaging and meaningful context for learning essential early literacy concepts and skills. The potential exists because theoretically, dramatic play and literacy share higher order, cognitive processes such as imaging, categorizing and problem solving.^{1,2,3} Research interest in a play-literacy connection appeared as early as 1974,⁴ but surged during the 1990s – most likely inspired by new insights into the foundations of literacy before schooling.^{5,6} Play, as a developmentally-appropriate activity, meshed perfectly with emergent literacy, a new insight on literacy development, and the play-literacy connection became one of the most heavily-researched areas of early literacy learning and instruction in the late 20th century.⁷ However, this momentum was lost during the first decade of the new century, as research on the play-literacy relationship slowed dramatically.⁸

Subject

As in other areas of early childhood development, the “classic” theories of Piaget⁹ and Vygotsky¹⁰ provide strong theoretical frameworks for investigating play-literacy relationships. Observations derived from a Piagetian view emphasize the value of social pretend play for practicing and consolidating broad cognitive skills, such as symbolic representation, and emerging literacy skills, such as print awareness. This perspective also focuses on interactions between individuals and the objects in the physical environment, leading to the development of literacy-enriched play centers as an intervention strategy.^{7,11} Vygotskian theory focuses attention on the role of adults and peers in acquiring social literacy practices during play. Arguing that literacy acquisition is a social, constructive process that begins early in life, this theory posits that children develop literacy concepts and skills through everyday experiences with others, including bedtime storybook reading and pretend play.^{5,12} Although singularly these classic theories do not explain the dynamics of the play-literacy interface, i.e., how play activity influences literacy development, they do offer behavioural categories apparently shared by play and literacy,

such as pretend transformations, narrative thinking, meta-play talk, and social interaction.¹³

Key Research Questions

Research on the play-literacy connection in literacy development has generally focused on two basic relationships:

1. The relationship between play processes (language, pretense, narrative development) and early literacy skills; and
2. Relationships between the play environment – both physical and social – and early literacy activity and skills.

Research Results

Play Process. A critical cognitive connection between play and literacy is rooted in the theoretical premise that representational abilities acquired in pretend transformations (“this stands for that”) transfer to other symbolic forms, such as written language. Some research evidence supports this premise. Pellegrini,² for example, found that children’s level of pretend skill predicted their emergent writing status. In a related study Pellegrini and his associates found positive, significant relationships between three-year-old children’s symbolic play and their use of meta-linguistic verbs (i.e., verbs that deal with oral and written language activity such as talk, write, speak, read), which suggests transfer of abstract, socially defined language uses between play and literacy.¹⁴

Other researchers have pursued a narrative link between play process and literacy development. Williamson and Silvern,¹⁵ for instance, probed the benefits of thematic fantasy play (story re-enactment) on reading comprehension and found that children who engaged in more meta-play talk (out-of-role comments used to manage the play, “I’ll be the mom, and why don’t you be the baby?”) during play comprehended the stories better than those less so engaged. Other researchers have found evidence of structural parallels between play narratives and more general narrative competence. For example, Eckler and Weininger¹⁶ observed a structural correspondence between Rummelhart’s¹⁷ story grammar scheme (narrative stories have a predictable structure in which main characters set goals, encounter problems and attempt to overcome these obstacles and achieve their goals) and children’s pretend play behaviours, leading them to infer that play narratives may help children develop the building blocks of story.

Play Environment. A large body of research has focused on the literacy-enriched play center strategy in which play areas are stocked with theme-related reading and writing materials. For example, a pizza parlor play center might be equipped with wall signs (“Place Your Order Here”), menus, pizza boxes, employee name tags, discount coupons, a pencil and notepad for taking orders. Data indicate that this type of manipulation of the physical environment is effective in increasing the range and amount of literacy behaviours during play.^{22,23} Evidence also indicates that literacy-enriched play settings can result in at least short-term gains in young children’s knowledge about the functions of writing,²⁴ ability to recognize play-related print,^{25,26} and use of comprehension strategies such as self-checking and self-correction.¹¹

Research has also shown that the social environment has an impact on play-literacy connections. Several investigations have reported that teacher scaffolding increased the amount of literacy activity during play.²²

Other research has focused on the peer interaction in literacy-enriched play settings.²⁷⁻²⁸ Results indicate that children use a variety of strategies such as negotiating and coaching, to help each other learn about literacy during play.

Research Gaps

Play-literacy research continues to struggle with problems of definition, particularly in defining the salient characteristics of play influential in literacy learning.³ Burghardt has made some recent progress in this regard by identifying a set of five criteria that characterizes play behaviour across species and contexts. These criteria stipulate that play behaviour is: (1) not fully functional; (2) spontaneous, voluntary, intentional, pleasurable, rewarding, reinforcing, or autotelic (“done for its own sake”); (3) incomplete, exaggerated, awkward, precocious, or involves behaviour with modified form, sequencing, or targeting; (4) performed repeatedly in a similar, but not rigidly stereotyped form; and (5) initiated when an animal (or person) is adequately fed, clothed, healthy, and not under stress.²⁹ According to Burghardt, all five of these criteria must be met in at least one respect for a behaviour to be labeled play.

Research on play and literacy also faces serious methodological issues. The line of inquiry lacks longitudinal studies, dynamic systems theoretical frameworks and modern statistical procedures for handling the complexities of play-literacy relationships.³⁰ The difficult work of controlled experimental studies to test the value-added of play in preschool language and literacy curricula is yet to be undertaken, and very little progress has been made in investigating the play-literacy connection in communities and homes. Innovative, creative studies are also needed to examine links between play process and print concepts in multimodal, electronic texts.

Conclusions

Research has provided some evidence that play processes (e.g., the language, symbolic representation, and narratives used in play) are related to early literacy skills. In addition, research on literacy-enriched play centers indicate play environments can be engineered and enriched to enhance the literacy experiences of young children. However, we lack data on the “big” question: Does play directly contribute to literacy development? This research gap continues to widen perhaps because the science of play study has not kept pace with advances in developmental science. Most play-literacy research, for example, remains loyal to the classic theories of Piaget and Vygotsky, even though cognitive science has moved on to multidisciplinary, dynamic perspectives.^{31,32} In addition, researchers are also using outdated data collection and analysis procedures. Pellegrini and Van Rizen¹³ argue that the use of modern statistical techniques would be very helpful in teasing out causal relationships between play and development. These new theoretical and methodological approaches have the potential to regain momentum in play-literacy research.

Implications

Credible evidence supports the claim that play can serve literacy by providing settings that promote literacy activity, skills and strategies. Therefore, we recommend that ample opportunities to engage in dramatic play and literacy-enriched play settings should be standard features in early childhood programs. However, firm evidence is lacking that play activities, with or without literacy-enrichment, make lasting contributions to literacy development. With this in mind, we recommend that print-rich play centers should be just one component of the

pre-K curriculum. Effective curriculums should also include age-appropriate direct instruction in core early literacy skills and teaching strategies, such as shared reading and shared writing, which provide rich opportunities for children to learn these skills in non-play settings. We also recommend that teachers make direct connections between literacy-enriched play centers and the academic parts of the curriculum, rather than having by play experiences as a “stand alone” activity. This play/curriculum integration will increase the likelihood that play experiences offer opportunities for children to practice and perfect important literacy skills and concepts.³³

References

1. Bruner J. *Beyond the information given: Studies in the psychology of knowing*. New York, NY: Norton; 1973.
2. Pellegrini AD. Relations between preschool children's symbolic play and literate behavior. In: Galda L, Pellegrini AD, eds. *Play, language, and stories: The development of literate behavior*. Norwood, N.J.: Ablex Pub. Corp.;1985:79-97.
3. Smith PK. Pretend play and children's cognitive and literacy development: sources of evidence and some lessons from the past. In: Roskos K, Christie J, eds. *Play and literacy in early childhood: Research from multiple perspectives*. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2007:3-19.
4. Wolfgang C. An exploration of the relationship between the cognitive are of reading and selected developmental aspects of children's play. *Psychology in the Schools* 1974;11(3):338-343.
5. Ferreiro E, Teberosky A. *Los Sistemas de Escritura en el Desarrollo del Nino*[Literacy before Schooling]. Goodman Castro K, trans. Exeter, NH: Heinemann; 1982.
6. Jacob, E. Learning literacy through play: Puerto Rican kindergarten children. In: Goelman H, Oberg A, Smith F, eds. *Awakening to literacy: the University of Victoria Symposium on Children's Response to a Literate Environment: Literacy before Schooling*. Portsmouth, NH: Heinemann; 1984:73–86.
7. Yaden D, Rowe, D, MacGillivray, L. Emergent literacy: a matter (polyphony) of perspectives. In: Kamil M, Mosenthal P, Pearson PD, Barr R, eds. *Handbook of Reading Research*. Vol. 3. Mahwah, NJ: Erlbaum; 2000:425-454.
8. Roskos K, Christie J, Widman S, Holding A. Three decades in: priming for meta-analysis in play-literacy research. *Journal of Early Childhood Literacy* 2010;10(1):55-96.
9. Piaget, J. *Play, dreams, and imitation in childhood*. Gattegno C, Hodgson FN, trans. New York, NY: W.W. Norton & Company; 1962.
10. Vygotsky L. Play and its role in the mental development of the child. In: Bruner, J Jolly A, Sylva K, eds. *Play: Its role in development and evolution*. New York: Basic Books; 1976:537-554.
11. Neuman S, Roskos K. Literacy knowledge in practice: contexts of participation for young writers and readers. *Reading Research Quarterly* 1997;32(1):10-32.
12. Teale W, Sulzby, E. Emergent literacy as a perspective for examining how young children become writers and readers. In: Teale W, Sulzby E, eds. *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex; 1986:vii-xxv.
13. Pellegrini AD, Van Ryzin M. Commentary: cognition, play and early literacy. In: Roskos K, Christie J, eds. *Play and literacy in early childhood: Research from multiple perspectives*. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2007:65-80.
14. Pellegrini AD, Galda L, Dresden J, Cox, S. A longitudinal study of the predictive relations among symbolic play, linguistic verbs, and early literacy. *Research in the Teaching of English* 1991;25(2):215-235.
15. Williamson P, Silvern S. Thematic-fantasy play and story comprehension. In: Christie J, ed. *Play and Early Literacy Development*. Albany, NY: State University of New York Press; 1991:69-90.
16. Eckler J, Weininger O. Structural parallels between pretend play and narrative. *Developmental Psychology* 1989;25(5):736-743.
17. Rummelhart D. Understanding and summarizing brief stories. In: LaBerge D, Samuels SJ, eds. *Basic processes in reading: Perception and comprehension*. Hillsdale, NJ: Erlbaum Associates; 1977:265-303.
18. Bodrova E, Leong D. *Tools of the mind: the Vygotskian approach to early childhood education*. Upper Saddle River, NJ: Pearson; 2007.
19. Diamond A, Barnett WS, Thomas J, Munro S. Preschool program improves cognitive control. *Science* 2008;318(5855):1387-1388.
20. Rowe D. Bringing books to life: the role of book-related dramatic play in young children's literacy learning. In: Roskos K, Christie J, eds. *Play and literacy in early childhood: Research from multiple perspectives*. 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2007:37-63.

21. Welsch J. Playing with and beyond the story: encouraging book-related pretend play. *The Reading Teacher* 2008;62(2):138-148.
22. Morrow L, Rand M. Preparing the classroom environment to promote literacy during play. In: Christie J, ed. *Play and early literacy development*. Albany, NY: State University of New York Press; 1991:141-165.
23. Neuman S, Roskos K. Literacy objects as cultural tools: effects on children's literacy behaviors during play. *Reading Research Quarterly* 1992;27(3):203-225.
24. Vukelich C. Play: a context for exploring the functions, features, and meaning of writing with peers. *Language Arts* 1993;70(5):386-392.
25. Neuman S, Roskos K. Access to print for children of poverty: differential effects of adult mediation and literacy-enriched play settings on environmental and functional print tasks. *American Educational Research Journal* 1993;30(1):95-122.
26. Vukelich C. Effects of play interventions on young children's reading of environmental print. *Early Childhood Research Quarterly* 1994; 9:153-170.
27. Christie J, Stone S. Collaborative literacy activity in print-enriched play centers: exploring the "zone" in same-age and multi-age groupings. *Journal of Literacy Research* 1999;31(2):109-131.
28. Neuman S, Roskos K. Peers as literacy informants: a description of young children's literacy conversations in play. *Early Childhood Research Quarterly* 1991;6(2):233-248.
29. Burghardt, G. Defining and recognizing play. In: Pellegrini AD, ed. *The Oxford Handbook of the Development of Play*. New York: Oxford University Press, 2011:9-18.
30. Roskos K, Christie J. Mindbrain and play-literacy connections. *Journal of Early Childhood Literacy* 2011;1(1): 73-94.
31. Bransford JD, Brown AL, Cocking RR. *How people learn: Brain, mind, experience and school*. Washington, DC: National Academy Press; 1999.
32. Fischer K, Bidell T. Dynamic development of psychological structures in action and thought. In: Lerner RM, ed. *Handbook of Child Psychology*. 5th ed. New York: Wiley; 1998:467-561. *Theoretical Models of Human Development*. Vol 1.
33. Roskos K, Christie J. Play in the context of the new preschool basics. In: Roskos K, Christie J, eds. *Play and literacy in early childhood: Research from multiple perspectives*, 2nd ed. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2007:83-100.