

Research Note

Children's Gendered Drawings of Play Behaviours

Tabasum Akseer¹, Mary Grace Lao², Sandra Bosacki²

Queen's University¹, Brock University²

According to child psychologists, vital links exist between children's drawings and their emotional, social, and cognitive development (Gardner, 1982). Piaget and Inhelder (1956) stated that children's drawings provide a glimpse into their cognitive competence. Atkinson (1993), Holm Hopperstad (2008), Kress (1997, 2003), and Thibault (1997) stress the significance of drawing in their definitions of drawing as a semiotic activity wherein children draw signs and symbols. These drawings, according to Kellogg (as cited in Brooks, 2009, p. 319) follow a "consistent, universal, sequential progression over which adults had little influence." Furthermore, previous research has explored the important relations between drawings and play in educational settings (Anggard, 2005; Dyson, 1990). Dyson (1990) states that "drawing and play have critical roles in children's growth as symbol makers" (p. 52). The ability to create abstract images or symbols coincides with abstraction and symbol systems used in school-based literacy such as science, math, reading, writing, and information technology (Athey, 1990; Barratt-Pugh & Rohl, 2000; Gifford, 1997). This process of visualizing ideas, concepts, and problems enables children to move to high levels of thinking (Brooks, 2009).

Literacy research has explored the relation between the development of writing and drawing (Dyson, 1990; Kress, 1997). More specifically, sociocognitive developmental research has examined narrative as an organizational tool for learning (Richer, 1990). Egan (1989) advocates the story form as a cultural universal: This cultural universal reflects a form in which we make sense of and experience the world. These silent narratives of drawings and written stories embody children's inner worlds, and help them to make sense of and express their feelings and thoughts regarding themselves and others.

Given the vast research that explores the ambiguous topic of children's play (Sutton-Smith, 1997), according to Richer (1990), the concept of play can be translated into two categories: (a) physical or athletic play (e.g., soccer), or (b) non-physical or non-athletic play (e.g., reading). Richer also extends this framework to include (a) competitive physical and athletic activities (e.g., competitive team sports such as tennis or more solitary activities such as golf), (b) co-operative physical activities (e.g., building a fort), or (c) autotelic or solitary physical activities (e.g., biking, solitary running). Developmental research on children's drawings suggests that during middle childhood, children are more likely to draw competitive rather than co-operative activities, and that voice and thought bubbles begin to appear more frequently in children's drawings during later childhood when cognitive abilities become more sophisticated (Jolley, Fenn, & Jones, 2004; Piaget, 1962; Willats, 2005). Gender-related findings regarding the content in children's play pictures suggests that some girls are more likely than boys to draw

non-physical and co-operative activities, and to include written text (e.g., Gardner, 1982; Golomb, 1990; Richer, 1990). As previous research on children's (ages 6 to 9) drawings indicate (Richer, 1990), when children are asked to draw a picture of them at "play" they are more likely to draw pictures involving physical (i.e., autotelic, co-operative, or competitive) activity. Therefore, researchers do anticipate predominantly viewing drawings of physical activities.

In terms of gender, past research suggests that compared to girls, boys are more likely to engage in aggressive games (Lever, 1975), while girls have been found to participate more often than boys in co-operative games. This gender-related difference in play has been shown to also be reflected in children's drawings of play (Golomb, 1990), although few studies explore the sub-types of different kinds of play expressed by children's drawings. To continue to explore this research question, our research explored these gendered representations of play behaviours in both girls and boys. For example, we explored questions such as:

1. Are boys more likely to view play as being a physical, aggressive sport?
2. Are girls more likely to view play as being more co-operative, or even non-physical and solitary?

To further explore this issue, building and extending past research on children's drawing and meaning making (Anning & Ring, 2004; Richer, 1990), the present study explores elementary school-aged children's expressions of themselves through drawings and stories of themselves within a play context. Also, given that children's sense of selves are strongly influenced by their view of themselves as a girl or a boy (Maccoby, 1998), this study explores how children's expressions of gender are represented in their drawings and descriptions of self and play. Specifically, this research study was guided by the following questions:

1. Which types of play activities are represented by children's drawings; physical, non-physical, competitive, co-operative, or autotelic?
2. Are there gender-related differences in children's drawings of play activities?

Methods

Participants

As part of a larger longitudinal study of children's social, emotional and cognitive development and understanding (Bosacki, 2008), the present study consisted of 69 ($X = 9$ yrs, 2 mos, $SD = 8.7$) school-aged girls ($n=40$) and boys ($n=29$) from a mainly Euro-Canadian, middle socio-economic status (SES), semi-rural neighbourhood.

Procedure

Upon obtaining ethical clearance from the university ethics review committee and school board, and upon receiving parental written informed consent and children's verbal assent, children were instructed in a group within the classroom to "Draw a picture of yourself playing and circle yourself in the picture." Each child was provided with one sheet of 8.5" X 11" paper, as well as 8 different coloured crayons. Upon completion of the picture, children were asked to draw a story on the back of the paper, in text, explaining the story as well as including a title for their story.

Once the children were finished their drawings and narratives, they were collected by the researcher. Using qualitative or categorical research coding methods as outlined below, the drawings and narratives were coded for subsequent analysis. The present study focuses on the analysis of the drawings only.

Measures: Children's drawings

According to Dyson's (1988) philosophy "children need blank sheets of paper, crayons, markers, paints and other constructive materials with which to invent worlds" (p. 32). Previous research (Richer, 1990) on children's (ages 6 to 9) drawings indicate that children, when asked to draw a picture of them at "play" are more likely to draw pictures of physical activities of either (a) autotelic (independent play, such as swimming, skating, or biking), (b) co-operative (group play, such as skipping with others, (c) building a snow fort/sand castle together), or (d) competitive (sports such as soccer, baseball, or basketball). Using this as a guide, a template was created which coded drawings based on two separate categories:

- A. Physical or non-physical
 - a. Physical activities (soccer, baseball, biking)
 - b. Non-physical activities (reading, watching television, hanging out)
- B. Social dimension
 - a. Competitive (soccer, baseball, hockey)
 - b. Co-operative (building snow fort, playing imaginative games),
 - c. Autotelic (reading, listening to music, skipping)

Each variable was numbered and each child received 2 scores, one based on whether the activity was Physical/non-physical (Physical= 1, Non-physical =2) and another score based on the Social Dimension (Competitive = 1, Co-operative = 2, Autotelic =3). Pictures were coded by the first author using the above variables. For example, a drawing of a child building a snow fort with friends was coded as 1, 2 (physical, co-operative). A drawing of a child reading was coded as 2, 1 (non-physical, autotelic). Accuracy and trustworthiness of coding was ensured through reliability coding by a second researcher from the study. During this process, researchers discussed the codes with a 95% agreement.

Results

The results of the categorical coding of the drawings across both genders revealed that the majority of girls and boys indicated a preference for drawing pictures of physical types of play. Content analysis of the drawings revealed that 89.7% of boys (26/29 boys) and 82.5% of girls (33/40 girls) drew pictures of physical types of play (such as soccer, baseball, skipping). There was no statistically significant gender-related difference in terms of drawings of physical or non-physical activities.

In terms of the Social Dimension of play, a Chi-squared analysis indicated that compared to 13% (5/40) of girls, 31% (9/29) of boys' drawings reflected a significantly higher preference for competitive play ($X^2(2,1) = 6.76, p = .03$), whereas 45% of girls were more likely to draw pictures illustrating co-operative play (18/40), compared to 17% of boys (5/29). Interestingly, a nonsignificant trend revealed that most drawn activity by both girls and boys involved autotelic

or solitary activities such as solitary skipping (physical), or solitary drawing (non-physical) included in 44% (30/69) of the total drawings. The second most drawn activity was co-operative activities at 33% (23/69), those such as building a snow fort (physical) and collaboratively working on art/drawings (non-physical). Competitive activities were the third most likely to be drawn with 23% (16/69) of the drawings representing physical activities such as competitive team sports (physical). Interestingly, no students drew diagrams of non-physical, competitive games such as chess, and also there were no drawings of computer games or media-assisted activities. Given the relatively ethnically homogeneous, and small sample size ($n=69$), the present findings may not be generalizable to larger, more culturally diverse populations of children.

Discussion

The findings from this study may further our understanding of the significance of children's drawings for social-emotional, and cognitive development. The current data also furthers our understanding of gender differences in how children view play and different types of games. Since the significance of drawing may help to promote children's social interactions and competencies (Brooks, 2009), educational programs should promote the use of drawing and visual art activities such as painting, sculpture, and so forth, to help foster children's self-expression and social experiences (Gardner, 1982), especially regarding play experiences with friends within the school environment.

For example, in line with a more arts-based curriculum, the Ministry of Education and Research, Norway (2005) follows a national curriculum designed for primary to secondary education that reflects the growing influence images, drawings and other graphic elements have in child development. Within this curriculum, drawing is approached as a resource employed for developing competence in reading and producing multimodal texts (Holm Hopperstad, 2008). Building on already existing programs, as well as drawing on past research, it is our hope that future educational programs for Canadian students will aim to strengthen the connections between theory and practice regarding children's drawings and social and emotional development. Finally, such educational activities that include drawing would also encourage children to develop socio-emotional and moral competencies by strengthening their ability to understand the perspectives and emotions of others (Bosacki, 2008). Consistent with a holistic view of gender and social cognition (Fine, 2010; Underwood, 2003), we hope our research contributes to, and furthers the dialogue regarding the complex and multifaceted nature of gender and its relation to children's play experiences within the school context.

Acknowledgements

The data reported in this research was collected at Brock University and was supported in part by a grant from the Social Sciences and Humanities Research Council of Canada grant (#410-2003-0950) awarded to the third author. We thank the schools, children, and teachers who participated in this study. We also thank Kamilla Akseer, Spogmai Akseer, Pamela Klassen-Dueck, Stella Han and Katie Sykes for their assistance.

Portions of this paper were presented at the annual meeting of the Canadian Society for Studies in Education, Fredericton, New Brunswick, Canada, May, 2011.

References

- Anning, A., & Ring, K. (2004). *Making sense of children's drawings*. Berkshire, England: Open University Press.
- Athey, C. (1990). *Extending thought in young children: A parent-teacher partnership*. London, England: Paul Chapman Publishing.
- Atkinson, D. (1993). Representation and experience in children's drawings. *Journal of Art and Design Education*, 12(1), 85–104.
- Barratt-Pugh, C., & Rohl, M. (2000). *Literacy learning in the early years*. Sydney, New South Wales, , Australia: Allen & Unwin.
- Brooks, M. (2009). Drawing, visualisation and young children's exploration of "Big Ideas." *International Journal of Science Education*, 31(3), 319 -341.
- Bosacki, S. (2008). *Children's emotional lives: Sensitive shadows in the classroom*. New York, NY: Peter Lang.
- Dyson, A. (1988). Appreciate the drawing and dictating of young children. *Young Children*, 43(3), 25-32.
- Dyson, A. (1990). Symbol makers, symbol weavers: How children link play, pictures and print. *Young Children*, 45(2), 50-57.
- Egan, K. (1989). *Teaching as story telling: An alternative approach to teaching and curriculum in the elementary school*. Chicago, IL: University of Chicago Press.
- Fine, C. (2010). *Delusions of gender: How our minds, society, and neurosexism create difference*. New York, NY: W. W. Norton & Company.
- Gardner, H. (1982). *Artful scribbles: the significance of children's drawings*. New York, NY: Basic Books.
- Gifford, S. (1997). When should they start doing sums? A critical consideration of the emergent mathematics approach. In I. Thompson (Ed.), *Teaching and learning early number* (pp. 178–183). Buckingham, England: Open University Press.
- Golomb, C. (1990). *The child's creation of a pictorial world*. Berkeley, CA: University of California Press.
- Holm Hopperstad, M. (2008). How children make meaning through drawing and play. *Visual Communication*, 7(1), 77-96.
- Jolley, R., Fenn, K., & Jones, L. (2004). The development of children's expressive drawing. *British Journal of Developmental Psychology*, 22, 545-567. Retrieved from http://www.staffs.ac.uk/personal/sciences/rj2/publications/jolley_fenn_jones_2004.pdf
- Kellogg, R. (1969). *Analyzing children's art*. Palo Alto, CA: National Press.
- Koppitz, E. (1969). Emotional indicators of human figure drawings of boys and girls from lower and middle-class backgrounds. *Journal of Clinical Psychology*, 25(4), 432-434.
- Kress, G. (1997). *Before writing: Rethinking the paths to literacy*. London, England: Routledge.
- Kress, G. (2003). *Literacy in the new media age*. London, England: Routledge.
- Lever, J. (1975). Sex differences in the games children play. *Social Problems*, 23(4), 478-487.
- Maccoby, E. (1998). *The two sexes: Growing apart, coming together*. Cambridge, MA: Harvard University Press.
- Ministry of Education and Research, Norway. (2005). *Kunnskapsløftet. Læreplaner for gjennomgående fag i grunnskolen og videregående opplæring*. (Culture for Learning: National Curricula for Primary and Secondary Education). Oslo, Norway: Author.
- Piaget, J. (1962). *Play, dreams and imitation in childhood* (C. Gattegno & F. M. Hodgson, Trans.). New York, NY: W. W. Norton.
- Piaget, J., & Inhelder, B. (1956). *The child's conception of space* (F. J. Langdon & J. L. Lunzer, Trans.). New York, NY: Macmillan.
- Richer, S. (1990). *Boys and girls apart: Children's play in Canada and Poland*. Ottawa, ON: Carleton University Press.

- Sutton-Smith, B. (1997). *The ambiguity of play*. Cambridge, MA: Harvard University Press.
- Thibault, P. (1997). *Re-reading Saussure: The dynamics of signs in social life*. London, England: Routledge.
- Underwood, M. (2003). *Social aggression among girls*. New York, NY: Guilford Press.
- Willatts, J. (2005). *Making sense of children's drawings*. Mahwah, NJ: Lawrence Erlbaum.

Tabasum Akseer is a doctoral student in the Cultural Studies Department at Queen's University, Kingston. Her research interests include investigating government policies and discourse on immigration and the construction of citizenship. t.akseer@queensu.ca

Mary Grace Lao is a Master of Education graduate of Brock University. Her research interests lie in youth culture and its effects on identity development. grace.lao@brocku.ca

Sandra Bosacki is an Associate Professor and teaches in the Graduate and Undergraduate Department of Education at Brock University. Her teaching and research interests focus on children's and adolescents' social and emotional development within learning contexts. sandra.bosacki@brocku.ca