

The Play-Literacy Interface in Full-day Kindergarten Classrooms

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Abstract The increasing accountability framework in Kindergarten education has put pressure on teachers to ensure that students reach certain literacy milestones before proceeding to the subsequent grade. One result of this shift is a tension between an emphasis on academic learning and the use of developmentally appropriate practices, such as play. However, there is evidence that play can be an effective context for literacy development. This study investigated the enacted integration of literacy learning and play-based pedagogies. Semi-structured interviews with 12 teachers who taught using a play-based Kindergarten program revealed differences in their beliefs about the role of play for literacy learning. Two groups of teachers emerged from the data analysis. The play and development group. Consisted of five teachers who dichotomized play and learning while the integrated play and learning group consisted of seven teachers who combined play and learning. Teachers in the play and development group expressed the concept that play may not be the best approach for literacy learning and were less likely to integrate the two. Teachers in the integrated play and learning group believed play was important for children's literacy learning and articulated a range of strategies for integration. Classroom observations of children's play showed evidence of more literacy-play

integration by students in the integrated play and learning group. Teachers in this group were also more likely to become involved in children's play, which supported children's literacy engagement during play. Although there were differences in play-literacy integration between the groups, all teachers expressed challenges associated with implementing a play-based learning program.

Keywords Play · Literacy · Kindergarten · Early years · Early childhood education

Introduction

The development of literacy skills is critical to children's learning. Children who develop these skills earlier demonstrate better academic learning, both in the early years and in later schooling (Elliott and Olliff 2008; McNamara et al. 2005; Steele 2004; Van Oers and Duijkers 2013). The development of core literacy skills continues to be a central focus of full-day kindergarten education in Ontario; however, the simultaneous implementation of a play-based pedagogy (Ontario Ministry of Education 2016 [OME]) complicates the enactment of this instructional focus. The current research has not yet articulated an integrated theory of academic learning and play-based, developmentally appropriate practices in the kindergarten classroom. This study addressed this challenge by analyzing the enacted integration of literacy learning and play-based pedagogies.

Literature Review

Kindergarten was originally conceived as a playful context for children to grow and develop (Froebel 1967). Froebel

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introduced the idea of kindergarten as a place where children's natural inclination to play can be nurtured. Consistent with practices in many preschool classrooms today, Froebel incorporated a rich assortment of play materials with which children could experiment to learn about the world around them with minimal adult involvement (Wolfe 2002). This emergent style of curriculum embraced a developmental perspective that allowed children to investigate the world in a child-centered context. However, kindergarten is now rife with mandated academic curricular standards that are prescriptive rather than emergent in nature (Heydon and Wang 2006). These shifting curricular expectations have led to much discussion in the research concerning the reduction in opportunities for play in kindergarten classrooms due to an increase in teacher directed instruction designed to facilitate the learning of high level academic skills (Bassok et al. 2016). This obligation to teach prescribed, academic standards has resulted in pressures from administration and colleagues that teachers describe as limiting their ability to successfully preserve play in the classroom (Fesseha and Pyle 2016; Lynch 2015). Thus there arises a tension between the use of developmentally appropriate pedagogical practices and the obligation to ensure that students meet academic standards (e.g., Einarsdottir 2015).

The Benefits of Play for Children's Development and Learning

There is much research outlining the importance of play for children's development and learning. Play has been found to be beneficial for children's progress and growth across the five developmental domains: physical, language, social, emotional, and cognitive. For instance, through play children practice using their fine and gross motor muscles, which supports the development of physical coordination and growth (Smith and Pellegrini 2013). Play has also been found to facilitate children's language development. Research shows that during play children advance their verbal skills, increase their vocabulary, and improve their language comprehension (Bodrova and Leong 2003; Eberle 2011; Smith and Pellegrini 2013; Weisberg et al. 2013). In play, children also develop their social and emotional competencies (Ashiabi 2007; Berk and Meyers 2013; Howard and McInnes 2013), developing important skills such as self-regulation (Elias and Berk 2002; Whitebread and O'Sullivan 2012), empathy (Galyer and Evans 2001), cooperation (Elkind 2007), and turn taking (Elkind 2007). Children's cognitive skills are also supported in play. According to Piaget (1950), Piaget and Inhelder (1969), cognitive development depends on stages of maturity that are best nurtured through appropriate environmental stimuli. This work highlights the important role of the play environment in helping children make sense of their world

and in supporting their cognitive development. As children actively engage with the play environment, they practice and develop sophisticated thinking skills such as problem solving skills as well as divergent and convergent thinking abilities (Auger et al. 2007; Lockhart 2010), which are foundational for growth in all the developmental domains.

In addition to supporting children's development, research also shows that play is important for children's academic learning (Myck-Wayne 2010; Wood 2004). Through play, children construct knowledge as they explore and experiment with new materials within the play environment (Bottini and Grossman 2005; Miller 2005; Myck-Wayne 2010; Wood 2014). In doing so, children exercise and develop higher-level thinking capacities and the critical cognitive skills that are part of executive function, which set the foundation for learning sophisticated academic skills such as literacy (Lockhart 2010; Roskos and Christie 2000). Christie and Roskos (2013), explain that there is "a critical cognitive connection between play and literacy" (p. 2), where the representational abilities children acquire through play may transfer to other symbolic forms, laying the foundation for understanding written symbols. Pretend and sociodramatic play have been found to be particularly important for fostering such connections (Weisberg et al. 2013). According to Smith and Pellegrini (2013), these play contexts may help develop "preliteracy skills, such as awareness of letters and print, and the purpose of books" (p. 3).

While play has been shown to benefit children's development and learning, different play contexts, such as free play and guided play, have been found to better support children's development and their academic learning. Children's language, cognitive, social, and emotional development, for instance, is typically nurtured through free play (Pramling Samuelsson and Johansson 2006; Pyle and Dannielis 2016). Free play is child-directed, with minimal adult involvement (Fisher et al. 2013; Holt et al. 2015; Weisberg et al. 2013). For instance, in free play children may take the lead in planning their play and carrying out their plan, making adjustments along the way. This process helps development in key areas such as self-regulation, internal language (self-talk), and working memory (Lockhart 2010). Moreover, oral language skills can be practiced in play via storytelling and dramatic play with peers (Cooper 2005).

Alternatively, guided play has been found to better support children's academic learning (Fisher et al. 2013; Weisberg et al. 2013). While guided play remains child-centered as children continue to direct their own learning, adults, such as the teacher, are more involved in the play. Vygotsky's (1962, 1978) work demonstrates the importance of interacting with more knowledgeable others for children's development and learning. Through the process of scaffolding, assistance from a more skilled person can help

to bridge the gap between a child's current level and the potential for more complex thinking. Within this framework, the teacher extends children's learning experiences, particularly in an effort to support targeted academic skills (Tsao 2008; Fisher et al. 2013; Weisberg et al. 2013). For instance, case studies of exemplary kindergarten classrooms have shown the importance of teacher involvement in children's play to incorporate literacy practices (Damian 2005; McLennan 2012). The teacher may structure and direct the children's play by providing particular materials such as plastic letters, books, and writing materials to extend children's literacy engagement during play (Smith and Pellegrini 2013).

Literacy Development in Kindergarten

Children enter kindergarten with a range of literacy skills (Foster and Miller 2007). Both research and policy documents discuss at length the value of developing academic skills, such as literacy, at an early age, as they are highly predictive of future academic achievement (Duncan et al. 2007; Romano et al. 2010). According to a report by the National Early Literacy Panel (2011), it is important for children to develop key early skills such as alphabet knowledge, phonological awareness, writing, oral language skills, and knowledge of print conventions (Lonigan and Shanahan 2009), as they are predictive of later literacy achievement. For example, it is suggested that phonemic awareness (PA), a critical component of phonological awareness, is strongly associated with word decoding ability by enabling the reader to segment and blend phonemes instead of memorizing words (Ehri et al. 2001). A study by Catts and Weismer (2006) found that deficits in PA contribute to weaker decoding and word reading ability in later grades. This same study demonstrated that oral language deficits were associated with poorer comprehension ability (Catts and Weismer 2006). In another study by Kendeou et al. (2009), the authors demonstrated that the PA and oral language abilities of Kindergarten-aged children were both predictive of comprehension by the 2nd grade. It is therefore crucial for educators to teach these skills as gaps in early literacy achievement are evident within kindergarten (Teale et al. 2007), and often widen over time resulting in significant literacy disparities between students in later grades (Chatterji 2006; Foster and Miller 2007).

Connections Between Play and Literacy Development

The play-literacy interface literature acknowledges the primacy of literacy development and empirically validates the role of play in supporting the development of children's literacy skills (e.g., Roskos and Neuman 1998; Roskos and Christie 2001; Saracho and Spodek 2006). Specifically,

researchers describe the role of providing access to literacy materials to encourage the infusion of literacy skills in play activities (Vukelich 1993), the role of ample class time for uninterrupted play (Saracho and Spodek 2006), and the role of the teacher in supporting vocabulary development during play activities (Van Oers and Duijkers 2013). The teacher's role may also involve providing and discussing books with children, encouraging children to try self-invented spelling, and supporting dramatic play related to print media to help further children's literacy learning during play (Korat et al. 2002). Importantly, children have been observed engaging in increased writing practice during play when given access to literacy-rich play centers (Ihmeideh 2015).

In practice, however, research has found that teachers face challenges navigating the implementation of a play-based pedagogy while also addressing academic standards (Pyle and Bigelow 2015). For instance, as Wood (2009) points out, in certain play contexts such as role play (or sociodramatic play) it may be difficult for teachers to plan their involvement given the often un-planned nature of such play among children. The connection between implementing a play-based pedagogy in the classroom and the development of literacy skills in multiple domains remains understudied. Thus, the current research fills an important theoretical gap in the literature while simultaneously offering the potential to positively inform teachers' practice by analyzing the integration of literacy skills development and play.

Teachers' Perspectives on the Role of Play in Kindergarten

There are varying perspectives among teachers concerning the role of play in kindergarten learning. Some teachers believe play to be separate from learning and most beneficial for children's social and emotional development and thus should be uninterrupted by the teacher (Fesseha and Pyle 2016; Pramling Samuelsson and Johansson 2006). Teachers who understand play to be strictly an emergent pedagogy believe that their involvement would disrupt the play (Pyle and Danniels 2016). Alternatively, research shows that other teachers believe play to be an important context for both children's development as well as for learning academic skills (Fesseha and Pyle 2016). Within this perspective, play, often identified as play-based learning, is seen as actively engaging the learner while providing instruction in essential academic skills (Hirsh-Pasek et al. 2008; Van Oers and Duijkers 2013; Weisberg et al. 2013).

Research shows that teachers' beliefs on the role of play in children's learning impacts how they implement play in their classrooms (Fesseha and Pyle 2016). Specifically, studies have found that teachers who believe play

and learning to be dichotomous constructs, where play is beneficial strictly for children's social and emotional development, are more likely to implement free play in their classrooms with minimal teacher involvement (Pramling Samuelsson and Johansson 2006; Pyle and Bigelow 2015; Pyle and Danniels 2016). Teachers who believe play to be important for supporting children's academic learning, instead believe that teacher involvement during play is necessary and are more likely to implement various types of play in their classrooms, ranging from more child-directed to more teacher-directed play contexts in order to meet targeted academic skills (Pyle and Danniels 2016), such as reading and writing.

Purpose

While literacy learning is a central focus of full-day kindergarten education in Ontario (OME 2016), this focus is complicated by the implementation of a play-based approach requiring that teachers negotiate a balance between academic learning (e.g., literacy skills) and the use of developmentally appropriate practices (e.g., play-based learning). Accordingly, this study had three objectives: (1) To analyze the enacted integration of literacy instruction and play-based learning; (2) To describe if and how play is used to support the development of children's literacy skills; and (3) To articulate a theory that bridges the theoretical disconnect between the academic and developmental orientations.

Method

Data sources

Ontario's new full-day Kindergarten Program (OME 2016), the focal curriculum of this research, maintains that developmentally appropriate programming is embodied in a play-based approach to learning, and demonstrates a subscription to the belief that play and learning are not dichotomous activities but rather are inextricably linked (OME 2016; Wallerstedt and Pramling 2012). The Ontario Ministry of Education (2010) defines play as "child-initiated free play and more structured play-based learning opportunities" (p. 13). The integration of academic and developmental logics, as well as curricular changes occurring in Ontario kindergarten classrooms, provided the ideal research setting.

Twelve Ontario full-day kindergarten classrooms in two school districts participated in this research; one district was located in a large urban centre, while the other was in a suburban area. These classrooms were selected based on geographical location and willingness to participate. Each

class had between 25 and 30 4- and 5-year-old students. Teachers in these classrooms had diverse years of teaching experience, ranging from 3 to 26 years. Ethical approval for this study was granted by the university and by both school districts. Subsequently, principals were asked to share information about the research project with kindergarten teachers within their schools. After expressing interest in participating, each teacher was provided with a detailed letter of information and completed a consent form prior to their participation. After teachers consented, a detailed letter of information was also sent to parents requesting permission to include their children in the study. Active parental consent was required for student inclusion.

In each classroom, a minimum of 10 h of observation focused on instructional periods (e.g., circle time, small group instruction) and periods of play, which were collected through video recordings. The focus of these observations was on the instruction of literacy concepts during instructional periods and the integration of literacy behaviors during periods of play (Corsaro 2012; Van Oers and Duijkers 2013; Vukelich 1993). This paper focuses on the video recordings collected during periods of play. These data were complemented by 1 h, semi-structured interviews with each of the kindergarten teachers, which were audio recorded and transcribed verbatim. Interview questions explored educators' instructional decision-making and their perspectives on the role of play in the learning of literacy skills including: (1) what aspects of student learning or development are enhanced during play?; (2) how is student learning supported during play?; and (3) what is the role of play in developing literacy skills and language skills?

Data analysis

The teacher interview transcripts were analyzed line-by-line using an inductive method (Patton 2002). After data driven codes were developed, a method of constant comparison was used to compare teacher codes across classes. This comparison resulted in four categories: (1) the purpose of play in a kindergarten classroom; (2) the implementation of play in kindergarten classrooms; (3) the role of play in the learning of literacy skills; and (4) the challenges encountered when integrating play and literacy development. Comparative analysis of these categories across teachers resulted in the emergence of two groups: The first group described a misalignment between play and the development of literacy skills ($n=5$), and the second group described the connection between play and the development of literacy skills ($N=7$).

Subsequent to the transcript analysis, 509 min of video of play in these kindergarten classrooms were inductively analyzed (Patton 2002). Each play scenario was coded for the type of activity in which students were engaged, and

the inclusion or exclusion of literacy skills in this play (e.g., reading, writing, oral language development). Through this analysis five themes emerged: (1) the importance of the play environment for literacy development; (2) the importance of teacher involvement for literacy development; (3) children's engagement with writing during play; (4) children's engagement with reading during play; and (5) children's engagement with oral language during play. These themes were compared to the results from the teacher interviews to develop a comprehensive description of teachers' beliefs concerning play and literacy development and how such beliefs were reflected in their classroom practices. This analysis revealed that teacher perspectives of the purpose of play in a kindergarten classroom were related to the types of play that were implemented. These types of play either supported or failed to support the integration of literacy skills in play contexts. However, regardless of play perspective and play implementation, all teachers described the challenges of integrating literacy skills into play-based learning contexts.

Results

Research shows that teachers use play as a pedagogical tool in different ways in the kindergarten classroom (Pyle and Bigelow 2015). Play-based approaches to learning range from free play to more structured play, where teachers take on a direct role in setting up and guiding the play (Pyle and Danniels 2016). The 12 teachers in this study fell into two groups in their beliefs about the role of play in the classroom and their implementation of play-based approaches to learning: the play and development group and the integrated play and learning group. The play and development group consisted of five teachers who used primarily free play in their classrooms and expressed the belief that play was important for oral language development. The integrated play and learning group consisted of seven teachers who integrated a variety of types of play and expressed the belief that play concurrently nurtures children's academic learning, such as their reading and writing skills.

Free Play and Oral Language Development: Setting the Foundation for Literacy Development

The five teachers in the play and development group expressed the belief that there was no direct connection between play and children's academic learning. These teachers therefore expressed a reluctance to accept play as a pedagogical tool that supports children's reading and writing skills. The teachers in the play and development group were thus not involved in the children's play as they believed that this play, as it was intended to develop

personal and social skills, should be child-directed. In turn, free play was the dominant type of play observed in these classrooms. Free play is a type of play where children are in control and choose their activities freely without adult interference (Holt et al. 2015). Teacher 11 reflected the dominant sentiment of this group when she explained, "[I let] them engage on their own [during play]...I don't want to be right there and playing with them and showing them what to do all the time."

The teachers' descriptions of literacy learning in the context of this play consistently addressed oral language development. Teacher 7 explained, "Such a big part of [play] is that oral language piece." We concurrently observed students engaging in oral language development in their play as they built storylines together, negotiated peer conflicts, and talked about their play. For instance, students in class 10 described to each other what they were building as they played at the LEGO table. One boy stated, "look what I made...it's a little robot." Teacher 7 further explained, "having that sort of soaking in the oral language piece I think makes a huge difference for being ready for the writing and the reading." However, while these teachers expressed the belief that oral language development is important for setting the foundation for developing more complex language skills, such as reading and writing, they concurrently expressed the belief that developing reading and writing skills required more direct and individual instruction, which was not possible during play: "I found that to be really tough. Because it doesn't really come naturally in play...I think literacy skills come from the small group work that I do" (Teacher 1). Free play was used in these classrooms to support children's oral language development, which prepared students for learning how to read and write during more structured, teacher directed activities.

As these five teachers described a lack of a connection between play and literacy learning, there was no conscious provision of literacy materials in the play environments. The observational data showed that the reading center and the writing/art center were typically the only centers that were rich in literacy materials in these classrooms. There is therefore little evidence of children engaging in reading and/or writing at other centers in the classrooms during free play. While classes 7 and 8 were exceptions in that literacy rich environments were made available to students at additional centers, there continued to be little, if any, evidence of children's engagement with reading and/or writing at these centers. For instance, in class 7 an airport center was created, which included labels, tags, paper, and pencils. However, children rarely interacted with these resources. In class 8, a grocery store was set up to include a text rich environment including food boxes, flyers, pamphlets, and labeled pictures of food. While these spaces were rich in text, oral language was the only literacy

behaviour observed during play in this context. We concurrently observed very limited teacher involvement during free play to guide students toward targeted literacy skills. As the teachers expressed the belief that learning how to read and write required more formal instruction, these teachers were observed teaching reading and/or writing skills in small groups as the rest of the class engaged in free play: “[we do] small group [for writing and reading] when some of the other kids are doing free play” (Teacher 8). The data indicated, therefore, that providing children with a play environment that is rich in literacy materials did not necessarily encourage literacy behaviors in children’s play. Instead, other factors may be more important in promoting literacy engagement during play, such as teacher involvement and extension in the context of play.

Play-based Approaches to Learning and Literacy Development

In contrast to the play and development group, the seven teachers in the integrated play and learning group expressed the belief that play was both a developmentally appropriate activity and an activity that supported the learning of academic skills and concepts, such as reading and writing. As different types of play were believed to afford different types of learning, these seven teachers worked along a play continuum in their classrooms that included both child-directed free play, such as playing with toys and sociodramatic play, and more structured teacher directed play, such as playing instructional games that were created to intentionally support the development of targeted literacy skills (e.g., letter bingo, words with friends, etc.). The differing levels of teacher involvement in the development of these varying types of play provided more diverse opportunities for students to integrate literacy behaviors in their play. For instance, in class 6 we observed students playing in a post office that was collaboratively created by the teacher, who provided the opportunity for students to be involved in the design of the centre and provided the resources, and the students who determined the type of play environment that they wanted available in their classroom and the resources that were necessary to support their play. The teacher saw this as a valuable opportunity for student learning: “we definitely see literacy enhanced [during play]...[at] our post office, it was just so obvious that it was something of interest for them. They were playing and learning and we did a lot of teaching of letter writing, of symbols around the community” (Teacher 6). Teacher 12 who also integrated varied types of play in the classroom further communicated that, “vocabulary increases a lot during [play]. The same with the writing, when they are writing at the science centre or math centre, but we are basically [focused on]

literacy, so drama is wonderful, and even the blocks when they were working on word families.”

As the teachers in the integrated play and learning group expressed the belief that play-based approaches to learning were important for children’s literacy development, the observational data showed that they purposefully created play environments that they believed played a salient role for such development. As seen with the play and development group of teachers, these classrooms also had writing/art centers and reading centers available during play, and children in these centers were observed practicing their pre-writing skills through drawing and tracing, their writing skills as they wrote their names and captions to works of art, as well as their reading skills by looking through books, pointing at pictures, and retelling stories. In contrast to the play and development group, however, the observational data showed that these seven classrooms provided additional activities that were intentionally set up to support children’s literacy development. For instance, the students and teacher in class 6 worked collaboratively to create a veterinary clinic that not only included animal and medical toys, but also literacy materials such as pencils, paper, and books. The observations showed that children playing at this center practiced writing as they wrote down appointments and practiced their reading skills as they looked through books about animals with which they were not familiar for information on how to better help them. Similarly, in class 12, a flower shop was created, which also included literacy materials. Different from the veterinary clinic, the teacher created the flower shop, providing students with order forms to fill out and submit to the shopkeeper. The shopkeeper also practiced writing by noting the amounts on each type of flower and filling out the shopkeeper section of customers’ orders. Reading and writing behaviors were observed with greater frequency in centers that integrated literacy materials, as children used these materials as part of their play within these centers.

These teachers expressed the perspective that play not only supported and nurtured children’s literacy development, but these play eliciting environments motivated children and created opportunities for students to engage with literacy in a positive manner. Even with more teacher-directed types of play, Teacher 3 found that, “[Play was] motivating for them. I mean at our doctor’s office. They wanted to write the words and...they understand that signs have meaning and people read them.” Expanding on this perspective, Teacher 2 expressed the belief that, “they’re not like ‘ugh writing again’...[instead] they’ll run across and they’ll grab the paper and they’ll write it on the board.” Additionally, in these types of playful environments we consistently observed children reading. For instance, in class 12, the drama center was transformed into a restaurant and the teacher brought in flyers with pictures of food and

logos to facilitate the students' creation of menus. Teacher 12 explained, "[the students] loved it...they wrote prices...they were reading [the] menus, right? Environmental print." Integrating academic skills and play-based approaches to learning was seen by these teachers to be important for children's early engagement with reading and writing.

In these seven classrooms, there was not only evidence of children engaging with reading and/or writing during play at literacy rich centers, but children also borrowed literacy materials from these centers to use in other play contexts. For instance, students in class 9 brought writing materials into the kitchen area and drew a cupcake, to advertise the products that were available in the bakery they were creating as part of their free play. In class 2, while they were building a terrarium, several of the students took it upon themselves to create tickets for other students in the classroom. These tickets, that included labeled pictures of the animals that would eventually reside in the terrarium, were given to other students as entrance passes for their future visits. In class 5 students brought building permits and markers into the blocks center and drew while they built their house. Such literacy integration during play was not observed in the classrooms of the teachers in the play and development group.

In contrast to the play and development group, the seven teachers in the integrated play and learning group endorsed the perspective that teacher involvement is important during children's play. As such, these teachers were often observed participating and/or speaking with students in the literacy rich play environments of these classrooms. Observations showed that teacher involvement in children's play in many instances led to engagement with literacy skills. For instance, in class 9 a student was watching the eggs in an incubator and recording her thoughts and observations. Assisting the child's effort to record the word "chicken," the teacher was observed helping this student write by sounding out the phonemes of the word, guiding the student as she identified and wrote the letters she heard. While this student was already engaged in a literacy activity that required only the support of the teacher, teachers were also observed introducing literacy skills into children's play. Teacher 6 noticed a student making a batman figure and a "bat shop" using paper. The teacher used this opportunity to prompt the student to create a sign for his batman, so his peers could identify the figure. Several teachers were observed capitalizing on opportunities to integrate literacy behaviors when they had the potential to enrich students' play. In class 6, as students played at the veterinary clinic, they expressed confusion over how to determine if an animal's leg was, in fact, broken. The educator in this classroom used a tablet computer to provide students with information about X-ray machines. The students then used this tablet and the available information to create their

own X-ray machine using a cardboard box. They also copied the images of bones found on the tablet to create their own 'X-rays' that were labeled with the corresponding part of the body. Teacher extension during children's play was observed to be a frequently used strategy for successfully supporting the integration of literacy and play in these seven classrooms. Through scaffolding techniques and prompts, teachers helped their students develop more complex literacy skills within a playful and child-centered context.

It is important to highlight that, while teachers in the integrated play and learning group expressed the belief that play environments were indeed conducive to children's literacy learning and typically integrated varying types of play in their classrooms, there were times when we observed these teachers working with children in small groups outside of the play context. A common explanation for this instructional approach, was that students were at different reading and writing levels, and play times provided the opportunity to implement small group work tailored to their specific needs such as: "with my pre-emergent readers we're working on...phonemic awareness right now...with the older kids we're doing the blending" (Teacher 4). Similarly, teacher 12 explained, "Once I see that everyone is settled [in their play], I take some kids and I work with them on guided reading." Several teachers identified the need for explicit instruction in specific literacy skills to help students meet curriculum standards:

[If] I'm seeing a deficit in not just one child's but in a majority of the children after working with them then we need to actually do some explicit teaching of this specific skill for them to apply and incorporate into their play. (Teacher 2)

This quotation illustrates the complexities of the kindergarten classroom and the concurrent roles played by teacher directed instruction and child centered play. While these teachers integrated differing types of play and endorsed play-based learning for the development of academic skills, they also expressed the belief that, for some aspects of literacy development, additional instruction was required in order for children to then capitalize on practicing these skills in their play.

The Challenges with Play-based Learning and Literacy Development

The data showed that teachers, regardless of their perspective on the purpose of play, reported facing challenges to the implementation of play-based approaches to learning, particularly for developing children's academic skills, such as reading and writing. While play-based learning approaches can be beneficial for children's literacy

development, whether for nurturing oral language development as a foundation for literacy learning or for directly supporting children's reading and writing skills, teachers struggled to find a balance between implementing play-based approaches to learning and ensuring that all children met curriculum standards. Teacher 1 encompassed this sentiment when she stated, "I don't think children can learn everything just through play. I think there's a lot of teachable moments but because of the curriculum or program that we have, we need to teach them specific things." As such, teachers found it challenging to integrate the conflicting approaches of emergent learning in child-centered play and the mandated academic standards imposed by the curriculum. Therefore, play-based approaches to learning were often accompanied by both whole group direct instruction and small group teacher-led instruction to ensure that children were meeting the curriculum standards. This exacerbated teachers' workloads as they struggled to navigate various teaching practices in their classrooms. High teacher-student ratios further compounded this struggle:

I wish there was more of me or less of them because with thirty students I'd love to be able to interact more, but...trying to find that balance is not easy... I'd like to be on the carpet counting the blocks and then someone wants to write...so I find it really hard to find those opportunities. (Teacher 3)

In addition to the high student-teacher ratio, students were also at different levels in their learning, which required teachers to focus on different learning outcomes with their students. Teacher 6 explained "we have a group of kids who still don't have their letters. So we'll pull the groups and do a little letter activity." Teacher 1 further expressed this sentiment stating, "especially with our senior kindergarten students because they're going on to grade one, there are certain things that it's not really a choice. I'm having a small group, you're going to come work with me, this is what we're working on." While teachers expressed the desire to implement play-based approaches to learning in their classrooms, they were also held accountable for preparing students for subsequent grades. This accountability structure resulted in a constant struggle to find a balance between child-centered practices and ensuring that curriculum standards were met: "trying to just find that balance of what are they interested in, and what do I want to make sure I'm covering in the curriculum as well" (Teacher 4). Teacher 1 elaborated on this point:

I find it's so hard because I do value play and I think children do learn a lot, but I also worry too because our program is sort of unstructured that when they go to grade one, are they going to have a hard time sitting at a desk and doing work...we haven't really

been told how to kind of piece it all together...I just wish that there was just a little bit more support with the role out of the full day kindergarten.

Our data showed that, regardless of the type of play that teachers implemented in their classrooms, all of the participants expressed concerns about ensuring that students met curriculum standards and were prepared for subsequent grades, and many struggled to determine how best to ensure that this necessary learning happened in the context of play-based learning.

Discussion

Differences in Teacher Practices

The emergence of two distinct groups of teachers in our data provided evidence of the role of teacher perspectives of play in kindergarten in the implementation of play-based learning in their classrooms. Teachers who failed to see how discrete literacy skills could be developed in the context of play provided little diversity in play opportunities in their classrooms. That is, with the play and development group, free play was the only type of play observed, there was limited conscious construction of play environments to promote literacy development in play, and these teachers spent play periods conducting small group, teacher directed instruction. Conversely, with the integrated play and learning group, when teachers perceived that play had the potential to support the development of children's literacy skills, they provided a greater diversity of play opportunities, including child-directed free play, collaboratively created contexts of play, and teacher directed playful learning. In addition, these teachers entered these play contexts acting as the more knowledgeable other (Vygotsky 1978), extending and supporting children's engagement in literacy behaviors in the context of the play. These results demonstrated that the teachers' understandings of the learning potential of play and their beliefs about the purpose of play in a classroom guided their pedagogical decision-making, including environmental development and teacher role during periods of play.

The Importance of a Literacy Rich Play Environment

The creation of a literacy rich environment and its role in children's engagement in literacy behaviors during play has been demonstrated in prior research (Vukelich 1993). Our findings serve to validate and further extend this finding by describing the role of teacher perspective. That is, when teachers did not share the belief that play supports the development of children's academic skills, then the play

environments in their classrooms were likely to reflect this, resulting in fewer intentional spaces that contain literacy rich materials. Students in these classrooms were rarely observed integrating literacy behaviors in their play, with the exception of the reading and writing centers, which were constructed to promote these skills. Conversely, those classrooms with literacy rich play environments tended to demonstrate a higher integration of reading and writing during play. Children in these classrooms also demonstrated literacy behaviors in targeted literacy centers, but further, the creation of literacy rich environments promoted the inclusion of literacy skills in play in other contexts. While these consciously created environments promoted literacy skill integration, the embedded nature of play and literacy in these classrooms meant that students also took the initiative to transition reading and writing materials into other centers as a way of extending their play from the literacy rich environments.

A Literacy Rich Play Environment is not Enough: Adult Intervention is Also Needed

As play, particularly free play, is typically distinguished by minimal adult involvement, teachers often use this time to do small group or individualized instruction. However, this study found that a literacy rich environment was generally not enough to ensure that students practiced particular academic skills during free play periods. In the integrated play and literacy group, teacher involvement during play was observed to contribute to rich and targeted literacy practices during play. For example, as children were guided in sounding out phonemes and moving beyond pre-writing skills such as drawing, they practiced reading and writing words and sentences in a playful context. Conversely, as seen in the play and development group where solely free play opportunities were implemented, minimal teacher involvement was associated with a greater focus on oral language development during play. While many teachers expressed the belief that oral language was important for setting the foundation for literacy, it is not sufficient for teaching core skills that benefit from targeted instruction, such as phonics (Stuart 1999) and writing (Jones 2015). Consequently, students who do not develop core literacy skills during kindergarten may be at-risk of future academic difficulties (Chatterji 2006; Foster and Miller 2007). Furthermore, a lack of emphasis on literacy within play-contexts may exacerbate the challenge of balancing play as a pedagogical tool and ensuring children meet particular curriculum standards. Specifically, the provision of extended periods of time for students to engage in play in the kindergarten classroom (Saracho and Spodek 2006) results in the need to integrate academic learning and play to ensure that students meet the mandated academic standards.

Using an Emergent Curriculum to Achieve Academic Standards

According to the Ontario Kindergarten Program (2016), play-based learning is a means for leveraging children's inquiry about the world to promote exploration within authentic contexts, and doing so facilitates literacy learning. Child-led and unstructured play opportunities are encouraged within the document, and it is described that educators can foster academic learning within those contexts by actively responding to and extending what children are doing (OME 2016). The play is authentic, and the curricular learning emerges from the child-led activity. Concurrently, each child is expected to demonstrate each of the curricular standards described within the document. Play is therefore designated as the primary vehicle for academic learning (Baker 2014; OME 2016; Pan and Li 2012). The current mandate in Ontario to implement play-based learning to teach prescribed academic skills has also been observed in international contexts including China (Pan and Li 2012), the United Arab Emirates (Baker 2014), India (Hegde and Cassidy 2009), Britain (Tafa 2008), and New Zealand (Synodi 2010). The findings in this study reflect the challenge of finding a balance between implementing play-based approaches to learning and meeting curriculum standards, a challenge teachers encounter on an international level (e.g., Fung and Cheng 2012; Hegde and Cassidy 2009). The core of this tension lies with negotiating the mandate for teachers to implement an emergent curriculum pedagogical approach in their classrooms, while also being held accountable for ensuring their students meet academic standards. The teachers in this study often expressed frustration about providing ample opportunities for children to play, as well as ensuring that those same children developed the requisite literacy skills. The key issue was how teachers addressed that challenge. For some participating teachers, that tension was resolved by separating core literacy skill development from play, while others embraced play as a platform for rich academic learning. International studies have also revealed diverging educator beliefs regarding the relationship between play and learning, with many reportedly struggling to see how play activities can lead to learning and resolving this tension by engaging in mainly direct instruction (e.g., Foote et al. 2004; Hegde and Cassidy 2009). What was evident in our findings was that the integration of a standards based curriculum and the emergent pedagogical approach of play-based learning presented challenges; however, these challenges were not insurmountable for all of the participating teachers. In fact, in the classrooms where teachers expressed belief in the value of play as a platform for learning, we observed the integration of play and literacy in a wider variety of play contexts and with more frequency.

However, teachers in the play and development group described a complete lack of connection between play and the learning of academic skills, demonstrating far less integration of literacy learning in play. Across several different countries that have mandated play-based learning in the kindergarten curriculum, there remains a lack of consensus regarding the exact role and benefits of play in early education (e.g., Baker 2014; Pan and Li 2012). Our findings point to the important influence of conceptual and attitudinal barriers to the effective implementation of play-based pedagogy, and the need to address these barriers on an international level. More research is needed to help teachers determine how best to negotiate the balance between teacher directed instruction and the provision of play-based learning opportunities.

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