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# More Play, Please

## The Perspective of Kindergarten Teachers on Play in the Classroom

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The past decade has seen an increase in research documenting the benefits of children learning through play. However, the amount of play in American kindergarten classes remains on a steady decline. This article compares the findings from a netnographic study of seventy-eight kindergarten teachers' message board discussions about play in kindergarten with those of more traditional studies and finds the teachers' discussions in broad agreement with past research. The results further demonstrate that kindergarten teachers feel pressures from other teachers, principals, and school policies to focus on academic goals and that these pressures lead them to limit play. The author argues for further research to develop effective strategies to help teachers include play in kindergartens rather than merely increasing teacher awareness of the benefits of play. She details how a netnographic approach can complement traditional methods for understanding how teachers treat play in their classrooms. **Key words:** kindergarten; netnography; No Child Left Behind Act (NCLB); play-based teaching; Social Ecological Theory (SET)

### Play in American Kindergartens

**I**N THE PAST DECADE, play research has witnessed a rise in two seemingly contradictory trends. First, the research increasingly shows that play expedites a variety of social, cognitive, motor, and linguistic improvements (Eberle 2011; Fisher et al. 2011). Social play allows children to become more creative and more adept at explaining meaning verbally, more successful at manipulating different symbol systems, and more confident when experimenting with new activities (Bjorklund and Gardiner 2011; Eberle 2011; Pellegini 2009). In school settings, teachers gently guide play, using play-based teaching and learning activities to promote curricular goals while maintaining the critically important aspects of play—such as children's intrinsic motivation to engage in play (Bordova, Germeroth, and Leong 2013; Eberle 2014; Fisher et al. 2011). Whether free or guided play (and, unless I state otherwise, I refer to all play that occurs during

kindergarten class time collectively as “play” throughout this article), play in the classroom fosters improvements in such subjects as mathematics, language, early literacy, and socio-emotional skills, and it does so for children from both low- and higher-income environments (Duncan et al. 2007). In addition to such specific subject skills, researchers contend that, as a major outcome, play helps children learn to cooperate with others and engage in socially appropriate behavior (Bordova et al. 2013; Eberle 2011). In time, these social competencies developed through play transfer to children’s everyday behaviors (Elias and Berk 2002). Because play’s benefits are so extensive, play has been asserted as an evolutionary and developmentally important activity (Bateson and Martin 2000; Eberle 2011, 2014). Researchers have posited that play enables developments in the prefrontal cortexes of mammals, including humans (Pellis, Pellis, and Himmler 2014). The premise that play serves a serious purpose of acquiring skills and experience needed in adulthood has long been a central feature in play research (Bateson 1987). Consequently, play should be viewed as a valuable classroom activity that enables children to develop a wide variety of social and academic skills (Copple and Bredekamp 2009; Fisher et al. 2011).

Second, and paradoxically, in spite of the many benefits of play recognized by academics, recent years have seen a steady decrease in the amount of time kindergarten classes devoted to play (Brownson et al. 2010; Frost 2008; Meisels and Shonkoff 2000). Past research has well documented the challenges American public school kindergarten teachers face in implementing play in their classes and the shift towards more academically focused kindergarten teaching. Jeynes (2006) traces the change in academic kindergarten back to three key issues. One, in the 1960s, public schools eliminated religious activities in classrooms. The removal of these activities, coupled with the lack of anything taught in their place, left a gap in the school day that became filled with more academic learning and testing. Compounding this change, from the 1960s until the 1980s, the standardized test scores of students in virtually every American school began to drop, resulting in calls to reform the American educational system. Two, beginning in the early 1980s, Americans learned that, despite attempts to raise test scores through teaching more academic material in U.S. schools, students in the Japanese educational system were achieving more impressive test scores. Because these remarkable scores were attributed to Japan’s extensive educational testing system, American schools increased standardized testing (Jeynes 2006). And three, beginning the early 1990s, policy makers and educators have increasingly voiced concern about the achievement gap between inner-city and

suburban children and between middle-class Caucasian students and minority students. In 2001 the No Child Left Behind Act (NCLB) was created to push public schools to greater accountability for the American educational system (Hyun 2003; Jeynes 2006) and to be more accountable for reducing the achievement gaps between various groups of children (Copple and Bredekamp 2009).

While NCLB does not apply to kindergartens, research has revealed NCLB's effects trickle down into kindergartens. In particular, the diminishing time afforded for play in kindergartens resulted from the emphasis on preparing children to do well on standardized tests and to meet all standards (Copple and Bredekamp 2009; Hyun 2003; Jeynes 2006). Consequently, more research examining kindergarten teachers' perspectives on play in the classroom has been frequently recommended (Hyun 2003; Jeynes 2006; Nelson and Smith 2004; Parker and Neuharth-Pritchett 2006). To date, all of our knowledge about teachers' perspectives of play in kindergartens has been derived from traditional methods such as interviews, focus groups, and observations—methods where issues of social desirability have been identified (Hedge and Cassidy 2009; Nelson and Smith 2004; Parker and Neuharth-Pritchett 2006; Stipek and Byler 1997). However, these days many American kindergarten teachers discuss the challenges they face in their working lives on social media (Stitzlein and Quinn 2012). The discussions are publicly available and offer researchers insights related to play-based teaching. Such is the approach of the study presented in this article.

### **Social-Media Data and Netnography**

Social-media data offers a readily available alternative to interviews and questionnaires, particularly for research with subjects that involve self-representation biases (Wilkinson and Thelwall 2011). Recent years have seen a rapid increase in the number of social-media sites, such as message boards, blogs, and chat rooms, all of which offer qualitative researchers a wealth of raw textual data (Krippendorff 2004; Rowe, Hawkes, and Houghton 2008). Users of these sites freely share information about themselves, offer opinions, and seek and receive advice (Banas 2008; Dart 2008; Hadert and Rodham 2008; Salzmann-Erikson and Eriksson 2011; White and Dorman 2001). Teachers especially have described the convenience and support of message boards in helping them overcome barriers of time and distance (Hur and Brush 2009; Nicholson and Bond 2003; Stitzlein and Quinn 2012). Additionally, in social-media discussions, teachers

present their opinions to a wider range of teachers than those in their schools—an especially significant point for teachers who feel isolated from other teachers with similar views (Hur and Brush 2009; Stitzlein and Quinn 2012). Most pertinently for this study, teachers have increasingly turned to social-media discussions because of perceived limitations on their freedom of speech regarding educational policies (Stitzlein and Quinn 2012). Researchers have already examined social-media discussions to better understand the perspectives of groups such as people with chronic illnesses (Seeman 2010), aboriginal women (Hoffman-Goetz and Donelle 2007), and cancer survivors (Meier et al. 2007), just to name a few examples. To study these social-media discussions, researchers turn to netnography (Kozinets 2010).

Netnography is a research methodology that adopts the practices of ethnography to an internet-based setting. That is to say, it is a qualitative research methodology whereby a researcher becomes immersed in the everyday life of a community with the goal of understanding life from community members' perspectives (Kozinets 2010). Researchers analyze social-media discussions much as they handle transcripts from other qualitative data (Kozinets 2010). Consequently, researchers view netnographic research findings in the same way they view in-depth interviews and other qualitative information. As with other qualitative approaches, netnography aims to offer propositions that can inform future research and that can be theoretically—rather than empirically—generalized (Draper and Swift 2010). Its results increase the store of particular knowledge, encourage broader and new perspectives, and generate hypotheses (Kozinets 2010).

Given the exponential growth of social-media discourse, netnography offers an innovative and timely methodology that should enable researchers to learn from a wide variety of individuals (Henrich and Holmes 2011). I have used a netnographic design, therefore, to examine data from teacher message boards to understand the influences acting on kindergarten teachers' perspectives on play, and I compare the results to existing literature.

## **Methods**

### *Data Collection*

My study qualitatively explores a sample of American kindergarten teachers' discussions about play in kindergarten. It was facilitated through a netnographic

analysis of kindergarten teachers' discussions on seven teacher message boards. A consensus has not been reached about the research ethics involved in netnographic research (Kozinets 2010), so I followed the ethical suggestions of McDermott, Roen, and Piela (2013) in selecting the message boards to include in a netnography. First, I considered the likely expectations of privacy among the participants. To include only discussions they could expect not to be private, I developed the following preliminary inclusion criteria: The message boards I used could not require membership, registration, or sign-in, and they were publicly accessible through a popular search engine. Second, I considered the extent that my observations might harm participants. In addressing this concern, I came to the conclusion that, although the data would unavoidably involve personal opinions, I could argue that the discussions I chose do not contain controversial or sensitive topics or opinions that would result in harm to participants—particularly when compared to netnographies that have examined such topics as the recreational drug use or self-harm (Bruckman 2002; McDermott et al. 2013; Paetcher 2012). In line with past netnographers, I made the data anonymous by not reporting any of the names of the message boards or identifying any characteristics of individual posters I studied (Reichman and Atzi 2009). Finally, although this research actually required no ethical approval (because there was no interaction with humans), I asked the Research Ethics Board at the University of Toronto to review and accept all study protocol.

I identified teacher message boards by entering the phrases “teacher message boards,” “teacher forums,” “teacher discussions,” and “teacher chat” into Google, the commercial Internet search engine. As a second step, I applied the “discussions” filter and added the term “inurl: forum,” which provided results from forums I may have been missed in the first search (Wilkinson and Thelwall 2011). These two searches returned hundreds of results, including a page of statistics regarding web pages that included the phrase “teacher message boards.” I searched through these results to determine which were, in fact, teacher message boards because many were unrelated web sites that contained only the searched phrases. I weeded these out, leaving a sample of relevant teacher message boards (Wilkinson and Thelwall 2011).

I selected message boards for inclusion in the study using selection criteria described by Kozinets (2010). The message boards had to (1) be publicly available with no fee-based membership or password protection; (2) identify as providing a discussion forum for teachers (based on the name of the board and an examination of the board's self-description, located on the main page);

(3) contain discussions published from 2002 (I selected this year because NCLB was created in 2001); (4) provide a user profile for individual posters; and (5) be written in English. As a result, I excluded message boards from the study if they required a fee or password, did not self-identify as discussion boards for teachers, predated 2002, did not provide a user profile, or were written in a language other than English. I rejected boards that met any one of the exclusion criteria. In total, I identified seven message boards.

In the next step of my search of social-media discussions, I combed through the discussion topics for those related to kindergarten play-based learning or teaching. To locate such discussions, depending on the specific message board, I either entered keywords into the board search engine or searched manually. I used such search terms as “play based” and “play”— and additional terms, like “stations,” “centers,” and “centres,” based on words that had frequently appeared in the initially identified discussions. I identified seventy-eight distinct discussions by kindergarten teachers about play-based teaching. I saved all discussions as PDFs for analysis.

### *Data Analysis*

Those experienced in netnography encourage researchers to take precautions to collect valid data (Kozinets 2010; Puri 2007). Following the recommendations of Puri, I selected only message boards that provided user profiles, I examined the content of individual posts to check for consistency over time, and I collected discussions from seven boards instead of examining the discussions on only one board to help validate findings. This careful and prolonged observation of the social-media data allowed me more comfortably to trust that the online discussions came from genuine kindergarten teachers (Kozinets 1998, 2010; Wallendorf and Belk 1989).

I analyzed all data inductively, summarizing and classifying the data before I related it to previous literature and theory (Creswell 2009; Pope, Ziebland, and Mays 2000; Strauss and Corbin 1998). This inductive approach to analysis allowed me to draw a more authentic picture of kindergarten teachers’ experiences, because my goal during analysis was to use the literature or a theoretical framework not to anticipate themes but let them develop as the study proceeded (Strauss and Corbin 1990). During my analysis, I moved from describing the data, which involved organizing it to show codes and themes, to interpreting the themes and examining the influence of underlying ideas and factors on the content (Braun and Clarke 2006).

First, I became familiar with the data by reading and rereading the discussions and writing reflective notes. Next, I looked at the data, noting its interesting features, with a view to composing the initial codes. I reread each discussion line by line and coded it. I applied initial codes to later discussions, developing additional codes and revising some initial codes. I then grouped related codes under initial themes, both anticipated themes (identified by previous research) and emergent themes. As with the codes, I revised the themes over time. In the later stages of data analysis during theme revision, I became aware of how often teachers described factors other than their personal beliefs that influenced their attitudes toward play and their decisions to use it in their classes. To analyze these observations further, I applied Social Ecological Theory (SET) in organizing and describing the findings (McLeroy et al. 1988). During the data analysis, it became apparent that three of SET's factors—intrapersonal, organizational, and policy—significantly impacted teachers, which I discuss briefly.

### *SET*

A large body of research asserts that kindergarten teachers face many challenges related to teaching through play (Goldstein 2007; Graue 2006; Jeynes 2006; Parker and Neuharth-Pritchett 2006; Winter and Kelley 2008). A theoretical framework that explores behaviors from multiple perspectives, therefore, might help us better understand the complex challenges facing these teachers. SET (McLeroy et al. 1988) illuminates how a policy, such as NCLB, might affect individual behavior, for example, leading teachers to encourage play in class.

McLeroy and his colleagues identified five groups of interrelated factors that influence an individual's behavior. These factors are (1) intrapersonal, which include individual characteristics such as knowledge, attitudes, skills, and attitudes; (2) interpersonal factors, which include social networks such as friends, neighbors, and family; (3) institutional factors, which involve contexts such as formal and informal rules, management support, and relations with supervisors; (4) community factors, which include the norms and standards that exist among groups and among those within organizations; and (5) policy factors, which include local, provincial, and national policies (McLeroy et al. 1988). While the many factors influencing individuals' behaviors constitute one of SET's strengths, this very same breadth also produces one of its greatest limitations in practice and research. The theory, however, becomes more useful by focusing on specific aspects, depending on the research participants and contexts (Gryzwacz and Fuqua 2000; Wiium and Wold 2009).

## Results

### *Data Profile*

Before I discuss my results, let me first briefly describe the data. I collected message-board data for three months at the beginning of 2013 from a total of seven, publicly available message boards. I noted seventy-eight distinct discussions by kindergarten teachers about play-based teaching. Although I lacked comprehensive data on the participating teachers (as with similar netnographies, such as Hoffman-Goetz and Donelle 2007; Seeman 2010; Meier et al. 2007), I did collect some basic information on them from what they chose to reveal in their profiles. The overwhelming majority of the participating teachers were women who said they came from the United States, though some of teachers were men and some reported they came from Canada, Japan, or Australia (I excluded from the analysis the teachers who lived outside United States). The sample included both new and experienced teachers, based on participants' descriptions of being "new to K[indergarten]" or of having "15 years of experience as a K teacher." I found noteworthy the absence of any comments about Montessori or Reggio Emilia curricula, and thus I reasoned that participating teachers most likely taught in public schools.

The more popular discussions occurred on the two more comprehensive and popular boards. These discussions were frequently richer and longer than those on the other boards, where discussions were shorter, sometimes consisting of only three or four posts per discussion. In contrast, on the more popular boards, discussions commonly consisted of an average of twenty posts per discussion. For all themes, I have included, along with the results, examples and quotations obtained from a variety of message-board participants, which I selected based on how well they represented the themes.

## Intrapersonal Factors

### *Negative Beliefs about Play in Kindergarten*

A dominant theme throughout the discussions involved teachers debating the kind, if not the very existence, of benefits that result from play. The majority of these discussions began with a teacher initiating an exchange about how to make play-based activities more scholarly—or as teachers more commonly described them, "more academic" and not "just for fun." In some discussions,

teachers completely opposed allowing play in kindergarten classes. One teacher offered that she believed kindergarten teachers who employ play-based teaching methods are simply being “lazy.” In other discussions, teachers explained that they no longer include play centers in their classes because they believe more valuable learning activities take priority over play. For example, one teacher asked if any other teachers have classes without dramatic play centers and stated her intent to discard them because “the corner could be useful for so many other things.” One teacher offered that play should be eliminated from kindergarten because “there is a time crunch and not enough time to spend on things. True, some kids don’t get enough play time at home, but a substantially smaller number get adequate early reading intervention from a qualified professional at home. Given the crisis with reading (not to mention math etc.) we are experiencing in this country—often the result of poor basic skill acquisition—my point was that we shouldn’t sacrifice instructional components like early reading intervention for play.”

Some teachers stated they needed to label activities to give them an academic tone, instead of a playful one. Rather than calling areas in the classroom “play centers,” these teachers encouraged others to call the spaces “developmental centers” or “work centers,” or to describe play as “active learning.” I also found this impetus to make kindergarten sound academic in parts of discussions unrelated to play, as in one teacher’s reasoning for renaming nap time: “Last year our Sp Ed K-3 teacher told us she calls it Sensory Differentiation Time so that it doesn’t sound so ‘nonacademic.’”

Teachers revealed mixed opinions about the benefits of play in preparing preschool-aged children for kindergarten. Teachers mentioned they had found children from play-based preschools trailed behind other students academically (presumably those who have attended nonplay-based preschools) when they reach kindergarten. One teacher proclaimed that she, “without exception,” encountered children from play-based preschools who were unable to meet the kindergarten curriculum objectives, a failing she attributed to “too much play and little to no academics.” Another teacher wrote, “I think dramatic housekeeping-type centers are GREAT for preschool, but I don’t have time for them in K, with all the stuff I need to teach.” Another teacher revealed: “So many preschools build up a lot of hype about how academic they are in an effort to entice parents to send their children to their preschool. They give parents the wrong message. It confuses parents when their children come into kindergarten and they see the kitchen area, blocks. . . . The parents think their children aren’t learning if they aren’t doing a paper-and-pencil tasks.”

*Positive Beliefs about Benefits of Play*

Some teachers, however, defended the importance of play in kindergarten, explaining that it differs from the play children engage in at home, where play too often means playing video games. Almost all the teachers agreed that play benefits children socially, teaching them, for example, to share and cooperate. Still, teachers who defended play often revealed a belief in the shortcomings of play compared to academic activities. Although one teacher's argument supported play, she still concluded with a statement suggesting she believed play to be more a reward: "I am a big proponent of free play in kindergarten. From my observations, they are learning while they are playing and demonstrating what they have learned through play. . . . At the craft center, they are developing their fine motor skills through cutting and pasting. . . . They are communicating with each other (language and social skill development). . . . I say let them just play, especially if it is at the end of the day."

### **Organizational Factors**

*Teachers*

From a post about "one of our K teachers was made fun of by other teachers because the kids sang too much," a discussion quickly developed describing similar situations, in which kindergarten teachers "play all day" with "cute kids" and their teaching was dismissed as "just kindergarten." Kindergarten teachers think other teachers have little understanding of developmentally appropriate activities for young children. One kindergarten teacher wrote that because her class is located in the elementary school, she feels pressure to teach more academics; she feels "looked down upon" if her students are playing. As another teacher recounted: "I will never forget a first-grade teacher telling me that by January our whole day should be [spent] in our seats doing paper-and-pencil activities to prepare them for first grade."

*Principals*

Principals emerged as a significant influence on teachers' perspectives of play in the classroom. Teachers observed that their problems with principals begin with the fact that most principals' backgrounds were in high-school teaching, and thus the majority have no experience teaching kindergarten. As one kindergarten teacher explained,

My P[incipal] said, “They are not in kindergarten to color and play.” Well, that isn’t all we do, but I certainly thought that was part. I teach half day. . . . My new P was appalled to see housekeeping centers and blocks. I got in trouble because I was completing mandatory individual testing on the sixth day of school and let my kids play with math manipulatives for twenty minutes while I did this. She doesn’t like songs. “Kindergarten isn’t like the old days where we sang songs,” she said. Oh, I wasn’t aware we only did that in the old days. I feel like my kids get no time for social development, and I certainly don’t get to know them at all. I have kids who are failing, and there is nothing wrong with them. Making kids read and write at the age of five is just not realistic for all students, and telling students and parents that they are failing because they can’t is unfair.

Other teachers discussed negative experiences with principals regarding play. One recounted, “if the principal walks into one of our K classrooms and sees the children ‘playing’ instead of working at their seats, the teacher receives discipline.” Likewise, another teacher detailed how she “had the kids on the floor in a circle and they were singing ‘Farmer in the Dell.’ The superintendent walked by and said, ‘You are going to stop singing and start teaching, right?’” In another discussion, a teacher described a time when she was moving to a new classroom only to find her entire closet full of play-based kindergarten teaching supplies had been thrown away: “My principal said to throw everything away. I was shocked, then extremely upset. I talked to her, and told her I was disrespected. She said, sorry, but told me I could not bring anything into my classroom, that I had too much in there already.” Similarly, a teacher stated: “At my school, we are very academic, even in Kinder; so my principal would not approve of the kids doing dramatic play.”

There were also instances of teachers describing principals’ positive influences on play-based teaching. Still, teachers continued to voice the belief that the majority of kindergarten classes are simply not allowed to have play or play-based centers. They described feeling “lucky” if they were in a school or district that supports play-based learning: “I feel so very lucky to be in a school where play is still a centerpiece of kindergarten education”; “I am so lucky I am in a school where my principal trusts my teaching philosophy and understands.” Another teacher related her good fortune that her principal supported a play-based kindergarten approach, but she also recognized, “I’d get eaten alive by

other administrators in other schools in our own district. Hoping and praying that our P doesn't retire anytime soon!" Other teachers shared the same sentiment. One wrote: "I am blessed to have an assistant superintendent of elementary ed with an early-childhood background. She is extremely supportive of developmentally appropriate kindergarten classrooms. She has provided inservices on the importance of play in kdg and supports a rest time." Another voiced her gratitude: "I am glad to be in a district that recognizes the importance of play in K programs and is providing new house equipment and blocks to any K class that doesn't currently have the equipment."

### **Policy Factors**

Teachers described receiving instructions from "the system" to avoid having any form of free play in their classes because they have been told "there needs to be a purpose behind all play activities." Frequently in discussions teachers said that they felt pressure to focus the entire school day on teaching to certain standards, stating that with the curriculum and standards they are required to teach, there is no time in the day for play centers, let alone free play. Beyond just eliminating play, teachers discussed that there is no time now for children to rest or take snack breaks because every minute of the kindergarten day must be spent learning academics. For example, some teachers portrayed snack time negatively because, as one posted, it "takes at least ten minutes and with our new math mandated seventy minutes per day; there just is not time." Another expressed her attitude toward snack time fearfully: "When they come to do my evaluations, they will consider it to be unnecessary and cutting into my teaching time." Teachers lamented that there is "no more time for show and tell, no time for holiday and special craft projects, not enough time for daily music and movement activities and the list goes on." Another teacher wrote: "We don't even have a housekeeping area or blocks any more—no time for that! Every minute, the kids are expected to be 'engaged.'"

Other posters directly pointed to No Child Left Behind and Reading First as the causes for their having been forced to remove play from classes. One teacher ascribed the lack of play in her class to "getting all my state standards covered, my CSCOPE curriculum done for all core subjects, my guided reading, interventions, etc." Another teacher commented: "I think those that mandate our curriculum (and parents) forget how important play is to academic and

social development.” These teachers frequently described how schools in their districts are determined to eliminate dramatic play areas. One asserted: “I am determined to keep my drama center.” The teacher continued: “I’ve considered myself a bit of a rebel during all of the foolishness that’s been going on in our state and in our classrooms for the past few years. I hope you will not buckle under the pressure—even though currently it is very scary to ‘buck the system.’ If we don’t stay strong, though, the system is going to beat us down.”

In fact, teachers often expressed the belief that, as one candidly put it: “So often the people who have the most power to affect your teaching have no idea what appropriate, best practice looks like.” Participants in the message-board discussions emphasized that they planned to include play until they were “forced to give it up”; they had gotten in trouble for including play in their classes; and they were fighting to keep play. One teacher recounted: “It is incredibly difficult to teach against your philosophy of education.” Another stated that her district does not allow dramatic play and that she was being disciplined for trying to retain it.

## Discussion

Employing a netnographic approach to explore teachers’ perspectives on play in kindergarten classes offered rich descriptions from a previously overlooked or unavailable source of publicly available information. Following a close reading of a sample of American kindergarten teachers’ social-media discussions, my analysis revealed a variety of influences on teachers’ beliefs and practices regarding play in their classes. I drew upon SET (McLeroy et al. 1988) as a holistic framework for understanding the findings.

Many teachers described wanting to include play in their classes but were unable to for a variety of reasons. Specifically, I identified the major influences acting on kindergarten teachers’ perspectives on play as intrapersonal factors, organizational factors, and policy factors; these findings have been previously identified in the literature. Replicating findings from previous studies that used traditional methods to explore teachers’ perspectives of play in kindergarten serves two purposes: First, this study adds to the literature demonstrating a need for policies that aid teachers in implementing play-based teaching and decreasing the rise in academically focused kindergartens (Jeynes 2006); Second, this study adds to the growing field of netnography that demonstrates a link between offline and online group findings.

### **Adding to the Literature on the Challenges Teachers Face**

According to SET, intrapersonal factors that influence behaviors can include personal beliefs and attitudes. The most discussed theme in the kindergarten teacher message board discussions was the belief in a need to emphasize academic material in kindergarten and the challenges in including play-based learning activities. This finding aligned with results from traditional methods of American teachers' attitudes and beliefs about kindergarten (Goldstein 2007; Jeynes 2006; Parker and Neuharth-Pritchett 2006; Winter and Kelley 2008). Teachers in the study described in this article expressed a need to achieve academic goals that conflicted with play-based teaching. Many teachers reported feeling pressure to adopt a more academic curriculum in kindergarten, resulting in a loss of play in classes. This finding holds true even when teachers possess positive beliefs about play-based learning (Goldstein 2007; Parker and Neuharth-Pritchett 2006). For instance, pressured to prepare children for later formal education, many teachers perceive worksheets as essential in their classrooms, although worksheets clash with their beliefs about how children learn best (Hedge and Cassidy 2009). Teachers in this study, as with past research, described a need to prepare kindergarten children for first grade (Parker and Neuharth-Pritchett 2006; Ranz-Smith 2007). Teachers in my study also described believing that children from preschool arrive unprepared for kindergarten. Interestingly, other research has found teachers may develop perceptions of incoming children being unprepared for kindergarten, when in reality children may simply be too young to be familiar with the academically focused kindergarten curriculum (Graue 2006). Indeed, standardized tests have been used to measure school and teaching effectiveness (Jeynes 2006). Some teachers have argued that standards and tests were not designed with young children's learning needs in mind; rather, they reflect the learning needs and developmental patterns of older students (Coppie and Bredekamp 2009; Goldstein 2007). To understand how teachers develop such beliefs and determine how to help teachers include more play in kindergarten, I looked into analyzing factors beyond intrapersonal ones. As I describe, SET made it possible to see that teachers feel external pressures (from their their schools' policies and from the institutions themselves) to focus on academic goals.

Compounding the intrapersonal factors, teachers recounted organizational factors, such as tense relations with school administrators and principals that

influenced their views and practice of play in kindergartens. Given these relations, it is not surprising that many teachers described themselves “battling” their administrations. Teachers have reported pressure from administrators, school and state curricula, and standardized tests as influencing their teaching (Parker and Neuharth-Pritchett 2006; Stipek and Byler 1997). Kindergarten teachers in this study also described feeling they are looked down upon by other teachers in their schools. Such findings are noteworthy in light of research that suggests a lack of respect for the early-childhood education field hinders implementing play-based teaching (Hedge and Cassidy 2006). Teachers’ relations with their principals constituted another organizational factor they identified in their the discussions. Principals’ influence came up frequently, and most often in a negative light, in which principals were usually described as ordering teachers what to teach and insisting that they remove all play materials from kindergarten classrooms. Teachers in the study observed that principals can be out of touch with how kindergarten students learn best, and these teachers explained that their principals promote standards too challenging for young children. For example, principals apply fourth- and fifth-grade curriculum practices to kindergarten and eliminate more appropriate play-based teaching.

In contrast to these negative perceptions of principals and other administrators, teachers also describe instances of the positive influence of principals and administrators on play-based teaching. However, even in these discussions, we find a recurrent belief that play and play-based teaching are rare in kindergarten classes, as teachers frequently cite stories about the adoption of policies and standards that result in play disappearing from kindergarten classes. Teachers continuously explained how the majority of kindergarten classes are simply not allowed to have play or play-based centers because of various organizational factors. They described feeling “lucky” if they work with a principal who supports play-based learning.

Finally, teachers also discussed policy factors, including NCLB standards, as well as state and district curriculum standards, that influenced their abilities to include play in kindergarten. Many teachers explained that they do not include any play or have play-based centers in their classrooms because time would be taken away from mandated activities. These findings should come as no surprise, because public school teachers have reported spending less and less time with children in play activities in kindergartens since NCLB was mandated (Goldstein 2007; Jeynes 2006). These teachers reported feeling overwhelmed in meeting all the teaching requirements, leaving little room in the day for play. Goldstein

found that a number of district and state curriculum standards resulted in more required content for teachers to cover daily and a sped-up instructional pace. Being accountable for students' progress is of paramount importance in NCLB (Copple and Bredekamp 2009; Goldstein 2007; Hyun 2003), and this accountability is measured in terms of students' results on standardized tests (Hyun 2003; Jeynes 2006). This may explain why, as with the teachers in this netnographic study, other teachers have reported feeling they can only allow play in the class after the "real" learning has been completed (Goldstein 2007; Ranz-Smith 2007). Prior to the 1960s, educators viewed kindergarten as distinct from the academically focused primary grades (Goldstein 2007; Graue 2006; Jeynes 2006). Currently, however, and particularly since NCLB, public school kindergarten is viewed by many as the first step into an academic setting (Goldstein 2007; Graue 2006; Parker and Neuharth-Pritchett 2006).

In sum, unlike research that finds teachers' own beliefs carry more influence than official policies (Quance, Lehrer, and Stathopoulos 2008), findings from this netnographic study support a broad body of research about American teachers' perceptions of play that suggests otherwise. Teachers frequently described their desires to use play in their classes, but they reported they were unable to for reasons unrelated to their teaching beliefs or knowledge. The reasons included the disapproval of school administration, principals, and parents and policy requirements that prohibited play. In a NCLB climate, principals, parents, administrators, and tests have increased standards and expectations for kindergarteners, resulting in many public school teachers feeling that little time remains for play-based teaching (Copple and Bredekamp 2009; Graue 2001; Hyun 2003).

### **Adding to Netnography Literature**

The results of this study encourage future research on teachers' participation in social-media discussions. Of particular interest in this respect, although we still do not know how representative online findings are of offline individuals (Puri 2007), these findings align with the majority of literature on American public school kindergarten teachers' perceptions of play. For example, Graue (2001) examined why teachers are unable to incorporate their positive beliefs about play in their classrooms and drew similar conclusions, including that the causes may come from pressure by administrators and colleagues, assessment mandates, and parents. The high degree of corroboration between my findings

and past research lends support to the suggestion that, although it is widely believed people falsify information on the Internet, online lying is not a major concern for researchers (Kozinets 2010; McDermott et al. 2013).

As others have in past netnographies, I found social-media data sources offer a number of unique advantages. Social-media venues for socialization, such as message boards, are posted in a public arena, allowing for unobtrusive observations of users' opinions and discussions in a more "natural" environment, thus further reducing researcher bias (Gurak and Antonijevic 2008; Gunther 2009; Kozinets 2010). Additionally, researchers have found that the social-media environment encourages subjects to reveal more information than they would in traditional methods like interviews and focus groups (Hookway 2008; Williams and Merten 2008). Given such innovative potential, it is somewhat surprising that so few education researchers have taken advantage of studying teachers' social-media discussions.

Of course, I was also aware of the disadvantages of social-media data and netnography. Primarily, social media anonymity raises the possibility of user fraud enabled by the anonymous nature of social-media discussions (Hookway 2008). While such anonymity clearly presents a challenge to researchers, I found that by employing the research techniques recommended by Wallendorf and Belk (1989), such as prolonged engagement, persistent observation, and researcher reflexivity, to be especially useful. In particular, careful and prolonged observation of the social-media community better enabled me to trust the online discussions (Kozinets 1998, 2010). Additionally, I also found that Puri's (2007) three recommended practices for ensuring valid data to be beneficial: First, she recommended using message boards that provide user profiles; Second, she recommended examining the content of individual posts to check for consistency over time; And third she recommended using a number of boards, as opposed to relying on only one, to validate findings.

## Conclusion

My study is limited because the sample consists only of teachers who participate in message-board discussions; its findings regarding teachers' perspectives, therefore, cannot be generalized to the whole population of American kindergarten teachers. Other limitations common to studies examining social-media data—such as being limited to the perspectives of those who have internet access

and are literate (Jones 1999; Rowe, Hawkes, and Houghton 2008; White and Dorman 2001)—are not pertinent to this study, given that I focused exclusively on teachers, all of whom are well educated and employed. My study might also be criticized because it excludes teachers who do not participate in these forms of social media (Wilkinson and Thelwall 2011; Rowe, Hawkes, and Houghton 2008). To address this criticism, I have recourse to a central tenet of qualitative research: the beliefs that all methods have sampling biases and all research is only ever a partial account of the topic of interest (Ellingston 2009; Wilkinson and Thelwall 2011). Moreover, while social-media data may not be nationally representative, the opinions nonetheless show the ways in which participants think about a defined topic, and thus the data are qualitatively interesting (Rowe, Hawkes, and Houghton 2008). Lastly, the goal of my research was not to validate any hypotheses, but to generate insights from a previously untapped data source (Wilkinson and Thelwall 2011). I am not suggesting that traditional methods of data collection need to be replaced or superseded, only that netnography adds significantly to the number of approaches in practice for assessing public opinion (Rowe, Hawkes, and Houghton 2008). Given the exponential growth of the social-media sites, discussion groups should continue to offer a timely and innovative data source for education researchers.

The discussions analyzed in my study further demonstrate how public school kindergarten teachers feel external pressures to focus on academic goals, which influence them to view play as incompatible with kindergarten. While the findings of this study cannot be generalized to all kindergarten teachers, a number of implications for future research and practice devolve from this study. Beyond its novel netnographic approach, this study uniquely employed Social Ecology Theory (SET) to organize the results. By organizing the findings according to SET, I was able to highlight the variety of factors influencing teachers' abilities to include play in kindergarten classes.

Further research is needed to develop effective strategies to help teachers implement play in public school kindergartens, beyond a narrow focus on increasing teachers' knowledge regarding play's benefits (valuable though this may be). Indeed, even after teachers received training on child-centered practices, Nelson and Smith (2004) found that not all teachers in their study implemented play-based teaching to its fullest extent. Similarly, Ranz-Smith (2007) found that the only teacher out of the four she interviewed who incorporated play in her classroom had no educational training in play; the three who did not incorporate play all had training in play-based teaching. Hedge

and Cassidy (2009) also found teachers trained in child-centered learning felt they could not apply their knowledge; they used worksheets instead. Thus, while knowledge is important, intrapersonal factors are only one facet of SET, which could explain the aforementioned teachers' inability to increase play in kindergarten following knowledge-based interventions. In my study, by applying SET, I established that intrapersonal, organizational, and policy factors merit consideration to increase play in kindergartens. As I have emphasized, while it is certainly important that teachers are educated on the value of play and how to incorporate play in kindergarten classes, if this is the *only* action taken, it will do little to equip teachers to deal with the many other factors involved in kindergarten climates (Hedge and Cassidy 2009; Ranz-Smith 2007; Winter and Kelley 2008). For example, the present findings suggest that, in terms of organizational interventions, a knowledgeable administration, understanding colleagues, and a supportive principal (with the three adjectives being interchangeable and interdependent) are needed to improve kindergarten teachers' abilities to include play in their classes. Advancement on the present study's implications to apply SET interventions along with its examination of data-rich social-media discussions is well warranted.

#### REFERENCES

- Banas, Jennifer. 2008. "A Tailored Approach to Identifying and Addressing College Students' Online Health Information Literacy." *American Journal of Health Education* 39:228–36.
- Bateson, Patrick. 1987. "Biological Approaches to the Study of Behavioral Development." *International Journal of Behavioral Development* 10:1–22.
- Bateson, Patrick, and Paul Martin. 2000. *Design for a Life: How Behavior and Personality Develop*.
- Bjorkland, David F., and Amy K. Gardiner. 2011. "Object Play and Tool Use: Developmental and Evolutionary Perspectives." In *The Oxford Handbook of the Development of Play*, edited by Anthony D. Pellegrini, 153–71.
- Bodrova, Elena, Carrie Germeroth, and Deborah J. Leong. 2013. "Play and Self-Regulation: Lessons from Vygotsky." *American Journal of Play* 6:111–23.
- Brownson, Ross C., Jamie F. Chriqui, Charlene R. Burgeson, Megan C. Fisher, and Roberta B. Ness. 2010. "Translating Epidemiology into Policy to Prevent Childhood Obesity: The Case for Promoting Physical Activity in School Settings." *Annals of Epidemiology* 20:436–44.
- Bruckman, Amy. 2002. "Studying the Amateur Artist: A Perspective on Disguising Data

- Collected in Human Subjects Research on the Internet." *Ethics and Information Technology* 4:217–31.
- Burghardt, Gordon M. 2011. "Defining and Recognizing Play." In *The Oxford Handbook of the Development of Play*, edited Anthony D. Pellegrini, 9–18.
- Butterfoss, Frances D., Michelle C. Kegler, and Vincent T. Francisco. 2008. "Mobilizing Organizations for Health Promotion: Theories of Organizational Change." In *Health Behavior and Health Education*, 4th ed., edited by Karen Glanz, Barbara K. Rimer, and K. Viswanath, 335–62.
- Chapman, Katarzyna, and Jane Ogden. 2009. "A Qualitative Study Exploring How Mothers Manage their Teenage Children's Diets." *Vulnerable Children and Youth Studies* 4:90–100.
- Cook, Deirdre. 2000. "Voice Practice: Social and Mathematical Talk in Imaginative Play." *Early Child Development and Care* 162:51–63.
- Copple, Carol, and Sue Bredekamp, eds. 2009. *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8*. 3rd ed.
- Creswell, John W. 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd ed.
- Dart, Jared. 2008. "The Internet as a Source of Health Information in Three Disparate Communities." *Australian Health Review* 32:559–69.
- Datnow, Amanda, and Marisa Castellano. 2000. "Teachers' Responses to Success for All: How Beliefs, Experiences, and Adaptations Shape Implementation." *American Educational Research Journal* 37:775–79.
- Day, Nicolas E., Nicola M. McKeown, Man-Yu Wong, Ailsa Welch, and Shelia Bingham. 2001. "Epidemiological Assessment of Diet: A Comparison of a 7-day Diary with a Food Frequency Questionnaire Using Urinary Markers of Nitrogen, Potassium and Sodium." *International Journal of Epidemiology* 30:309–17.
- Dearing, James W. 2008. "Evolution of Diffusion and Dissemination Theory." *Journal of Public Health Management Practice* 14:99–108.
- Duncan, Greg J; Chantelle J. Dowsett, Amy Claessens, Katherine Magnuson, Aletha C. Huston, Pamela Klebanov, Linda S. Pagani, Leon Feinstein, Mimi Engel, Jeanne Brooks-Gunn, Holly Kathryn Duckworth, and Crista Japel. 2007. "School Readiness and Later Achievement." *Developmental Psychology* 43:1428–46.
- Draper Alizon Katharine, and Judy A. Swift. 2010. "Qualitative Research in Nutrition and Dietetics: Data Collection Issues." *Journal of Human Nutrition and Dietetics* 24:3–12.
- Dusenbury, Linda, Rosalind Brannigan, William B.Hansen, John Walsh, and Mathea Falco. 2005. "Quality of Implementation: Developing Measures Crucial to Understanding the Diffusion of Preventive Interventions." *Health Education Research* 26:308–13.
- Eberle, Scott G. 2011. "Playing with the Multiple Intelligences: How Play Helps Them Grow." *American Journal of Play* 4:19–51.
- Eberle, Scott G. 2014. "The Elements of Play: Toward a Philosophy and a Definition of Play." *American Journal of Play* 6:214–34.

- Elias, Cynthia L., and Laura E. Berk. 2002. "Self-Regulation in Young Children: Is There a Role for Sociodramatic Play?" *Early Childhood Research Quarterly* 17:216–38.
- Ellingston, Laura L. 2009. *Engaging Crystallization in Qualitative Research: An Introduction*.
- Fisher, Kelly, Kathy Hirsh-Pasek, Roberta M. Golinkoff, Dorothy G. Singer, and Laura Berk. 2009. "Playing Around in School: Implications for Learning and Educational Policy." In *The Oxford Handbook of the Development of Play*, edited by Anthony D. Pellegrini, 341–62.
- Frost, Joe L., Sue Clark Wortham, and Robert Stuart Reifel. 2008. *Play and Child Development*. 3rd ed.
- Goldstein, Lisa S. 2007. "Embracing Pedagogical Multiplicity: Examining Two Teachers' Instructional Responses to the Changing Expectations for Kindergarten in U.S. Public Schools." *Journal of Research in Childhood Education* 21:378–99.
- Graue, M. Elizabeth. 2001. "What's Going on in the Children's Garden? Kindergarten Today. Research in Review." *Young Children* 56:67–73.
- \_\_\_\_\_. 2006. "This Thing Called Kindergarten." In *K Today: Teaching and Learning in the Kindergarten Year*, edited by Dominic F. Gullo, 3–10.
- Grzywacz, Joseph, and Juliana Fuqua. 2000. "The Social Ecology of Health: Leverage Points and Linkages." *Behavioral Medicine* 26:101–15.
- Gunter, Barrie. 2009. "Blogging—Private Becomes Public and Public Becomes Personalized." *Aslib Proceedings* 61:120–26.
- Gurak, Laura J., and Smiljana Antonijevic. 2008. "The Psychology of Blogging: You, Me, and Everyone in Between." *American Behavioral Scientist* 52:60–8.
- Hadert, Aimee, and Karen Rodham. 2008. "The Invisible Reality of Arthritis: A Qualitative Analysis of an Online Message Board." *Musculoskeletal Care* 6:181–96.
- Hansen, William B., and Ralph R. McNeal. 1999. "Drug Education Practice: Results of an Observational Study." *Health Education Research* 14:85–97.
- Hedge, Archana V., and Deborah J. Cassidy. 2009. "Kindergarten Teachers' Perspectives on Developmentally Appropriate Practices (DAP): A Study Conducted in Mumbai (India)." *Journal of Research in Childhood Education* 21:65–78.
- Henrich, Natalie, and Bev Holmes. 2011. "What the Public was Saying about the H1N1 Vaccine: Perceptions and Issues Discussed in On-Line Comments during the 2001 H1N1 Pandemic." *Emerging Health Threats* 6:e18479.
- Hoffman-Goetz, L., and Lorie Donelle. 2007. "Chat Room Computer-Mediated Support on Health Issues for Aboriginal Women." *Health Care Women International* 28:397–418.
- Hollander, Jocelyn A., and Hava R. Gordon. 2006. "The Processes of Social Construction in Talk." *Symbolic Interaction* 29:183–212.
- Hookway, Nicholas. 2008. "Entering the Blogosphere: Some Strategies for Using Blogs in Social Research." *Qualitative Research* 8:91–113.
- Hur, Jung Won, and Thomas A. Brush. 2009. "Teacher Participation in Online Communities: Why Do Teachers Want to Participate in Self-Generated Online Communities of K–12 Teachers?" *Journal of Research on Technology in Education* 41:279–303.

- Hyun, Eunice. 2003. "The 'No Child Left Behind Act' of 2001: Issues and Implications for Early Childhood Teacher Education." *Journal of Early Childhood Teacher Education* 24:119–26.
- Jeynes, William H. 2006. "Standardized Tests and Froebel's Original Kindergarten Model." *Teachers College Record* 108:1937–59.
- Jones, Steve. 1999. *Doing Internet Research: Critical Issues and Methods for Examining the Net*.
- Kozinets, Robert V. 2010. *Netnography: Doing Ethnographic Research Online*.
- Krippendorff, Klaus. 2004. *Content Analysis: An Introduction to its Methodology*. 2nd ed.
- McDermott, Elizabeth, Katrina Roen, and Anna Piela. 2013. "Hard-to-Reach Youth Online: Methodological Advances in Self-Harm Research." *Sexual Research Sociological Policy* 10:125–34.
- McLeroy, Kenneth R., Daniel Bibeau, Allan Steckler, and Karen Glanz. 1988. "An Ecological Perspective on Health Promotion Programs." *Health Education Quarterly* 15:351–77.
- Meier, Andrea, Elizabeth J. Lyons, Giles Frydman, Michael Forlenza, and Barbara K. Rimer. 2007. "How Cancer Survivors Provide Support on Cancer-Related Internet Mailing Lists." *Journal of Medical Internet Research* 9:e12.
- Meisels, Samuel J., and Jack P. Shonkoff. 2000. "Early Childhood Intervention: A Continuing Evolution." In *Handbook of Early Childhood Intervention*, 2nd ed., edited by Jack P. Shonkoff and Samuel J. Meisels, 3–34.
- Moore, Ruth Jane Liebschutz. 2010. "Utah Kindergarten Teachers' Challenges and Concerns about Teaching Kindergarten." Master's Thesis, Utah State University.
- Nelson, Regena Fails., and Andrea B. Smith. 2004. "Changes in Teachers' Perceptions of Developmentally Appropriate Practice." *Journal of Early Childhood Teacher Education* 25:75–8.
- Neuman, Susan B., and Kathy Roskos. 1992. "Literacy Objects as Cultural Tools: Effects on Children's Literacy Behaviours during Play." *Reading Research Quarterly* 27:203–23.
- Nicholson, Sheila A., and Nathan Bond. 2003. "Collaborative Reflection and Professional Community Building: An Analysis of Preservice Teachers' Use of an Electronic Discussion Board." *Journal of Technology and Teacher Education* 11:259–79.
- Nicolopoulou, Ageliki. 2005. "Play and Narrative in the Process of Development: Commonalities, Differences, and Interrelations." *Cognitive Development* 20:495–502.
- Paechter, Carrie. 2012. "Researching Sensitive Issues Online: Implications of a Hybrid Insider/Outsider Position in a Retrospective Ethnographic Study." *Qualitative Research* 13:71–86.
- Parker, Aurda, and Stacey Neuharth-Pritchett. 2006. "Developmentally Appropriate Practice in Kindergarten: Factors Shaping Teacher Beliefs and Practice." *Journal of Research in Childhood Education* 21:65–78.
- Pellegrini, Anthony D. 2011. "Introduction and Overview." In *The Oxford Handbook of the Development of Play*, edited by Anthony D. Pellegrini, 3–8.
- Pellis, Sergio M., Vivien C. Pellis, and Brett T. Himmler. 2014. "How Play Makes for a

- More Adaptable Brain: A Comparative and Neural Perspective.” *American Journal of Play* 7:73–98.
- Pope, Catherine, Sue Ziebland, and Nicholas Mays. 2000. “Qualitative Research in Health Care: Analysing Qualitative Data.” *British Medical Journal* 320:114–16.
- Porter, Nori, and Jean M. Ispa. 2012. “Mothers’ Online Message Board Questions about Parenting Infants and Toddlers.” *Journal of Advanced Nursing* 69:559–68.
- Potischman, Nancy, Barbara E. Cohen, and Mary Frances Picciano. 2006. “Dietary Recommendations and Identified Research Needs for the National Children’s Study.” *Journal of Nutrition* 136:686–89.
- Quance, Amanda, Joanne S. Leher, and Helen Stathopoulos. 2008. “Play in the Grade One Classroom: An Exploration of Teacher Beliefs, Classroom Organization, and Obstacles to Implementation in Quebec.” *Canadian Journal for New Scholars in Education* 1:1–18.
- Ranz-Smith, Deborah J. 2007. “Teacher Perception of Play: In Leaving No Child Behind Are Teachers Leaving Children Behind?” *Early Education and Development* 18:271–303.
- Reichman, Roxana G., and Shlomit Artzi. 2009. “Israeli Teachers’ Reactions to Top Down Educational Reform.” *Allied Academics International Conference: Proceedings of the Academy of Educational Leadership* 14:36–44.
- Rogers, Everett M. 2003. *Diffusion of Innovations*. 5th ed.
- Rowe, Gene, Gillian Hawkes, and Julie Houghton. 2008. “Initial UK Public Reaction to Avian Influenza: Analysis of Opinions Posted on the BBC Website.” *Health, Risk, & Society* 10:361–84.
- Saltzmann-Erikson, Martin, and Henrik Erikson. 2011. “Tormenting Values, Feelings, and Thoughts—Cyber Nursing and Virtual Self-Care in a Breast Augmentation Forum.” *International Journal of Qualitative Studies in Health & Well-Being* 6:1–12.
- Schweinhart, Lawrence J., David P. Weikart, and Mary B. Larner. 1986. “Consequences of Three Preschool Curriculum Models through Age 15.” *Early Childhood Research Quarterly* 1:15–45.
- Seeman, Neil. 2008. “Web 2.0 and Chronic Illness: New Horizons, New Opportunities.” *Healthcare Quarterly* 11:104–110.
- Stipek, Deborah J., and Patricia Byler. 1997. “Early Childhood Education Teachers: Do They Practice What They Preach?” *Early Childhood Research Quarterly* 12:305–25.
- Stitzlein, Sarah M., and Sarah Quinn. 2012. “What Can We Learn from Teacher Dissent Online?” *The Educational Forum* 76:190–200.
- Strauss, Anselm, and Juliet M. Corbin. 1998. *Basics of Qualitative Research*. 2nd ed.
- Tondeur, Jo, Martin Valcke, and Johan Van Braak. 2008. “A Multidimensional Approach to Determinants of Computer Use in Primary Education: Teacher and School Characteristics.” *Journal of Computer Assisted Learning* 24:494–506.
- Wallendorf, Melanie, and Russell W. Berk. 1989. “Assessing Trustworthiness in Naturalistic Consumer Research.” In *Interpretive Consumer Research*, edited by Elizabeth C. Hirschman, 69–84.
- White, Marsha, and Steven M. Dorman. 2001. “Receiving Social Support Online: Impli-

- cations for Health Education.” *Health Education Research* 16:693–707.
- Wiiium, Nora, and Bente Wold. 2009. “An Ecological System Approach to Adolescent Smoking Behavior.” *Journal of Youth Adolescence* 39:1351–63.
- Wilkinson, David, and Thelwall, Mike. 2011. “Researching Personal Information on the Public Web: Methods and Ethics.” *Social Science Computer Review* 29:387–401.
- Williams, Amanda L. and M. J. Merten. 2008. “A Review of Online Social Networking Profiles by Adolescents: Implications for Future Research and Intervention.” *Adolescence* 43:253–74.
- Winter, Suzanne M., and Michael F. Kelley. 2008. “Forty Years of School Readiness Research: What Have We Learned?” *Childhood Education* 84:260–66.
- Wolfgang, Charles H., Laura L. Stannard, and Ithel Jones. 2001. “Block Play Performance among Preschoolers as a Predictor of Later School Achievement in Mathematics.” *Journal of Research in Childhood Education* 15:173–80.