

Play in Early Childhood Education and the Perceived Impacts of Accountability and Rigor

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ABSTRACT

Exploring explored principals' and teachers' perceptions concerning the role of play in early childhood programs was this quantitative inquiry. All early childhood participants identified play as a learning tool but noted it was being eliminated from the curriculum due to high stake accountability. There was a significant difference between administrators and early childhood educators concerning the purpose of play. Implications for early childhood curriculum and school district policy were determined.

Keywords: early childhood; play; high stakes accountability.

INTRODUCTION

With the additional challenges that accompany increased rigor and accountability measures (Madsen et al., 2014), play has taken a backseat as an educational tool (Gagnon et al., 2014). According to Elkind (2007), even “parents, anxious for their children to succeed in an increasingly competitive global economy, regard play as a luxury that the contemporary child cannot afford” (p. ix). Taylor and Boyer (2020) highlighted,

With a heavy increase in academic expectations and standards to be learned in the early years, educators are facing the challenge of integrating important academic standards into developmentally appropriate learning experiences for children in kindergarten. To meet this challenge, there is a need to become familiar with the role of play in the classroom (p. 128).

Prompted by this heavier focus on rigor and accountability, the challenge for today's early childhood education includes the perceived role of play (Elkind, 2007). Educational stakeholders are forced to review the role of play in the school setting, leaving some to wonder, has “play”

become an objectionable four-letter word? Conversely, Conyers and Wilson (2015) noted, "Learning is not just a cognitive function. Thinking, feeling, and physicality all come together to develop new knowledge and skills" (p. 38).

Musfiroh (2014) added that through playing activities, early childhood students could learn to develop readiness abilities. While there is much research available to speak to the benefits of play (Wainwright et al., 2019; Weisberg et al., 2015), there is considerably less research available to speak to perceptions of play as an educational tool as a means of increasing school readiness for preschool students. Furthermore, made is an argument that skills developed because of play align closely with what young children need to achieve school readiness (Ethridge & Branscomb, 2009). Changes in expectations regarding school readiness profoundly affected what play looks like and how perceived. Additional challenges and pressures accompany increased rigor and accountability measures (Madsen et al., 2014); thus, play has taken a backseat as an educational tool (Gagnon et al., 2014). Gagnon et al. (2014) also stressed this as a serious omission in a child's development since play can serve multiple functions in a child's life. This quantitative study explored administrators and teachers' perceptions concerning the role of play in a child's early education. The following research questions guided this study: Is there a difference in the perceptions of early childhood administrators and early childhood teachers regarding the role of play as an educational tool to achieve school readiness? How does the implementation of the high stake accountability expectations impact the role of play in an early childhood education as perceived by early childhood stakeholders and grade 2-3 teachers? How does the implementation of standards in kindergarten through third grade expectations impact the use of constructivist learning theory within early childhood classrooms?

CONCEPTUAL UNDERPINNINGS

Chaille (2008) defined constructivism as "a theory of learning that posits that children construct knowledge through interaction between their own ideas and experiences in the social and physical world" (p. 5). While Bereiter (1994) noted constructivism is a concept based on observation about how people construct their own understanding through experiencing and reflecting on those experiences. Constructivism, which underscores children actively constructing their experience and knowledge through the environment, is understood and applied worldwide (Porcaro, 2011).

Brooks and Brooks (1993) summarized descriptions of "constructivist teachers" and they conceived of such an educator as someone who will encourage student autonomy and the use of interactive materials. Furthermore "constructivist teachers" will encourage students to construct relationships and create metaphors and will assess students' understanding through application and performance of open-structured tasks (Brook & Brooks, 1993). And as Xu and Shi (2018, p. 883) emphasized, " during the process of teaching, teachers try their best to exert students' initiatives, emphasize the students' autonomy and help them actively discover, analyze and solve the problems in learning."

Olusegun (2015, p. 69), noted "Constructivism requires a teacher to act as a facilitator whose main function is to help students become active participants in their learning and make meaningful connections between prior knowledge, new knowledge, and the processes involved in learning." Therefore teachers are the foundation of constructivist learning (Piaget, 1929). As Olusegun

(2015, p. 69) further highlighted, "Constructivism represents one of the big ideas in education. Its implications for how teachers teach and learn to teach are enormous." Moreover, the purpose of constructivism being applied to learning is that the environment is learner-centered where knowledge and understanding is socially constructed (Xu & Shi, 2018). The focus on the learning is to create a learning environment where there is active discussion and a hands-on opportunities (Bailey, 2014; Chaille, 2008; Epstein, 2014). Chaille (2008) highlighted that it is this exploration and opportunities for hands-on learning whereby children make sense of the world around them and to construct. While Epstein (2014) noted by allowing children to immerse their five senses into their learning, they are able to take in all aspects of an activity. Elkind (2007) assimilated play into the constructivist learning theory paradigm, stressing that children need time to exercise their predisposition for fantasy, imagination, and creativity, as these are "the mental tools required for success in higher-level math and science" (p. x).

Play is the educational tool that addresses the needs of the whole child in this construction of new knowledge (Copple & Bredekamp, 2009). As Brown and Vaughan (2010) emphasized, "Play allows society to function and individual relationships among many to flourish" (p. 88). Although the appearance of play has changed as schools have evolved, the benefits of play remain unaffected.

Bailey (2011) argued that in any quality early childhood curriculum, learning and play are exchangeable. According to Ormrod (2008), "Piaget suggested that effective discovery learning should be largely a child-initiated and child-directed effort" (p. 326). Similarly, Brown and Vaughan (2010) agreed, arguing that authentic play comes from deep within the child and is not formed or motivated solely by others (p. 104). While Altun (2018, p. 96) highlighted "Play as an important context in which learning and development occurs. This finding has an important meaning because it revealed that the participants value the play in children's learning and development."

Consequently, play has a significant role in the development and individualization of many learning projects. As Brown and Vaughan (2010, p.104) further illustrated, "Real play interacts with and involves the outside world, but it fundamentally expresses the needs and desires of the player." The power of play is again evident in these curricula as well, as "it [play] integrates our deep physiological, emotional, and cognitive capacities, and quite without knowing it, we grow" (Brown & Vaughan, 2010, p. 104).

In a constructivist environment as earlier noted, children take initiative and integrate what they learn from different disciplines (Epstein, 2009, 2014), but most of all, they learn flexibility, are eager to learn new skills, and adapt to rapidly changing challenges (Helm & Katz, 2011). Furthermore, Afify's research (2018) revealed examination of constructivism-based learning could improve children's thinking capacity and self-regulating capabilities.

However, while the benefits of play have been noted, increase in school rigor and accountability relative to ESSA (EOP, 2015) have given rise to unintentional pressures on early childhood educators, resulting in the perception of play as frivolous rather than a quality educational tool (Brown & Vaughan, 2010). With the increase focus on learning standards and standardized testing comes an increase in teacher-directed instruction in early childhood programs (Van Oers & Duijkers, 2013) and a decrease in child-directed play in the classroom (Bassok, Latham, & Rorem,

2016). The standardized learning expectations and teaching methods used for efficiency can undermine the child's right to explore and express (Tobin, 2013). The adoption of child-centered pedagogical standards are needed to counteract the loss of exploratory learning such as play based and project-based learning as a result of accountability systems that remain too narrowly focused (Haslip & Gullo, 2018). Haslip and Gullo (2018) further emphasized that child-centered practices, play-based experiences, and social-emotional development, have gradually been replaced by teacher-directed practices, highly-structured environments, and prescriptive academic curriculum as a result of high stake accountability efforts. Similarly argued by Bassok et al (2016, p. 1), "An oft-raised concern is that a focus on academic content might crowd out other important types of learning experiences that help develop social and regulation skills." Daniels and Clarkson (2010) made it clear: "Constructivist, child-centered practices are considered 'developmentally appropriate' because they begin with attending to the development of the child" (p. 95). Play can offer an educational tool that is supported as developmentally appropriate to early childhood and kindergarten education (Hirsh-Pasek et al., 2009).

DESIGN OF STUDY

Population

For this study, utilized was a quantitative approach. Participants were selected according to a purposeful representational sample and using a quasi-experimental design dividing the state of Missouri into four quadrants (Northeast, Southeast, Northwest, and Southwest) rather than a random sampling (Creswell, 2015; Mertens, 2010). Applying representative sampling accomplished generalizability, which increased the "degree to which a sample represents the population of interest" (Fraenkel & Wallen, 2003, p. 109).

Identified were participants according to their status as early childhood personnel (e.g., administrators or teachers) within the state of Missouri. Online surveys went to all early childhood staff within the participating Missouri school districts for a potential of 300 survey participants. The researchers received 92 complete online survey responses utilized in the data analysis. Though this return rate of completed surveys was only 31%, 100% of the participating Missouri school districts had staff responding to the survey and represented each quadrant.

The demographic data for participants including gender, years of experience in education, job responsibility/area(s) of certification, and school size as summarized in Table 1.

Table 1
Demographic Data on Participants

Demographic	Selection	Percentages
Gender	Male	0%
	Female	100%
Years of Experience	1-5	0%
	6-10	25%
	11-15	37.5%
	16- 20	12.5%
	21+	25%
Area of Certification	Infants to 2-year-old classroom	12.5%
	3-5 year old classroom	50%
	Building Level Administrator (PK-Gr 5)	25%
	Building Level Administrator (PK only)	12.5%
	Central Office Administration	0%
School Size	Less than 100 students	12.5%
	Between 100 to 300 students	25%
	Between 300 to 500 students	25
	More than 500 students	37.5%

Note: N=92

Instrumentation

An on-line survey, *Educators Perceptions of the Role of Play* (EPRP), was created to determine the teachers and administrators beliefs regarding play and role of play in early childhood programs. Additionally examined through the survey were the educators' view of how high stakes accountability measures have impact the role of play in programs. While developing the review of related literature (Afify's 2018; Brown & Vaughan, 2010; Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013) the researchers were able to identify several important constructs that aided in the process of developing the survey items and open ended questions. According to Gay (1996), "content validity is determined by expert judgment...[and] for a research study, the researcher assumes the role of the "expert" and determines...[what] is valid for her or his study" (p. 140). The reliability of the instrument was addressed through test-re-test format which assesses the degree to which scores on a test are consistent or stable over time (Gay, 1996). The survey was completed by 15 early childhood educators who were not included in the study. The test-retest format was used with a period of two weeks between the two administrations. Once analyzed, no changes beyond editing and format errors were made to the survey instrument. The score sets from the survey administration were correlated using the Pearson coefficient (r) to establish the stability for the reliability of the survey. The correlation established was a high coefficient of stability, ($r = .84$), indicating the reliability of the survey (Horner et al, 2004).

Quantitative Data Analysis

In analyzing the data, used was a descriptive analysis using the frequency distribution of responses and a one-sample t-test. Survey questions included a combination of open-ended responses as well as the following rating scales: 1) Strongly Disagree 2) Disagree; 3) Somewhat Disagree; 4) Somewhat Agree; 5) Agree; and 6) Strongly Agree. Besides, the median response for each question was included summarizing whether respondents tended to agree or disagree. Furthermore, for question one, data were analyzed using a one-sample t-test to determine if there

were differences in perceptions of the use of play between administrators and teachers. Statistical significance was at the 0.05 level of confidence. The qualitative approach of additional open-ended questions was utilized to determine deeper understanding of what the administrators were noting regarding play and the impact of high stakes accountability on the role of play in early childhood programs.

As in any examination that involves human subjects, followed were ethical guidelines essential to protect the participants. These protections included but were not limited to safeguarding the participants from harm, assuring confidentiality, and avoiding any deception for the participants involved in the research (Creswell, 2015).

Limitations

The limitations for this study were relative to the geographical area and the research design used. Specifically, this study was limited to a representative sample of 300 early childhood teachers and administrators from the Midwest. The use of self-reporting measures to gather data was also identified as a design limitation. It was assumed that participants accurately interpreted the survey instrument and provided responses to prompts in a manner which accurately reflected their feelings. The validity and degree of reliability of the survey instrument used may also pose as limitations in the study. As with any research the opportunity for researcher error is present and is acknowledged as a potential limitation. It is within the confines of these limitations that the data was analyzed, discussion of the findings were provided, and conclusions were framed.

FINDINGS

Q1: Is there a difference in the perceptions of early childhood administrators and early childhood teachers regarding the role of play as an educational tool to achieve school readiness?

Depicted in Table 2 are the quantitative data from online survey responses relating to this study's first research question. The results were that 83.52% of respondents (76 out of 92) "Strongly Agreed" (1) that play does have an educational role in the classroom. Asked of respondents to what degree they believe play serves multiple functions vital in a child's education and development. The results were 83.52% of respondents (76 out of 92) selecting "Strongly Agree" (1) that play does serve multiple functions in a child's education and development (see Table 2).

Table 2
Differences in Responses to Research Question 1

Survey Item #	Likert Description	Frequency	Percentage
1 Role of Play	Strongly Agree	76	83.52%
	Agree	10	10.99%
	Somewhat Agree	4	4.40%
	Somewhat Disagree	0	0.00%
	Disagree	0	0.00%
	Strongly Disagree	1	1.10%
3 Functions of Play	Strongly Agree	76	83.52%
	Agree	12	13.19%
	Somewhat Agree	2	2.20%
	Somewhat Disagree	0	0.00%
	Disagree	0	0.00%
	Strongly Disagree	1	1.10%

Note: N= 92 participants responding to survey item

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Next compared were the means of the various respondents’ perceptions of play using a two-tailed one-sample t-test. A significant difference ($p=.0042$) was found in the perception of play between administrators ($M=3.795$) and teachers ($M= 4.488$) (see Table 3).

Table 3
School Participant Perception of Play by role

Group	t	df	Mean	Sig. (2-tailed)
Teachers	52.972	31	4.488	.0042*
Administrators	65.957	45	3.755	

Note. Likert-type scale: 1= Strongly Disagree 2= Disagree; 3= Somewhat Disagree; 4= Somewhat Agree; 5= Agree; 6= Strongly Agree *Significance determined at a .05 level.

The open-ended response included, “Children learn through play. When they play, they are discovering, problem-solving, building relationships, and gaining knowledge from others”, and, “They discover and learn new things, even with a toy they have played with before. They can learn math, physical and cognitive skills”, confirm the belief that play is a form of learning. Other survey respondents referred to the child’s ability to adapt play to a pace that best fits their needs, as noted in this concise survey response, “Play allows children to explore the world at their own pace.” Still, other survey participants conveyed a message of play holding a significant role in a child is learning, as seen in this response, “Play promotes communication, language development, social development, imagination, and problem-solving skills, fine and gross motor skills, adaptive skills, cognitive skills, empathy, compassion and so much more!”, as well as this response, “Play is the crucible in which imagination and creativity can be cultivated and expressed. Play with other children is critical for the development of social skills. Learning occurs in all areas of development as young children play.”

Q2: How does the implementation of the high stake accountability expectations impact the role of play in an early childhood education as perceived by early childhood stakeholders and grade 2-3 teachers?Query Set

According to the data collected, there is an overall perception that the high stakes accountability expectations somewhat discourage play. In a survey prompt stating, “The high stakes accountability within kindergarten through third grade expectations do not allow for play in the classroom,” the median response rating at 32.97% (30 out of 92) was “Somewhat Agree”. Displayed in Table 4 are the quantitative data from the survey by frequency and percentages.

Table 4
Response to Research Question 3

Survey Item #	Likert Description	Frequency	Percentage
7 MLS & K3 No Play	Strongly Agree	4	4.40%
	Agree	21	23.08%
	Somewhat Agree	30	32.97%
	Somewhat Disagree	8	8.79%
	Disagree	9	9.89%
	Strongly Disagree	19	20.88%

Note: N= 92 participants responding to survey item

Many survey respondents, but not all, agreed with the sentiment that state standards and performance expectations are pushing down into the early childhood field. One stated, “As kindergarten becomes more rigorous, so do the expectations of preschool. Because of the developmental differences between preschool and kindergarten children, preschool programs attempt to bridge the gap.” Similarly, another suggested,

So much has to be taught. Many do not believe there is time for play. Newer teachers have been taught differently in college than older teachers. The pendulum is swinging back towards more play. Children are experiencing stress and have more behavioral problems because they are not

allowed to move and explore their surrounding[s]. Preschools are what kindergarten used to be. Kindergarten is what first grade used to be.

With this said, there may be a light at the end of the tunnel according to this response. S/he noted that s/he feels that the pendulum is swinging back towards play.

Q3 How does the implementation of standards in kindergarten through third grade expectations impact the use of constructivist learning theory within early childhood classrooms?Result Set

Data collected somewhat suggests the perception that Missouri Learning Standards and kindergarten through third grade expectations harm the use of constructivist learning theory within the early childhood classroom. The median survey response rating at 30.77% (28 out of 92 responses) was "Somewhat Agree." It is also worth noting that the second-highest response was "Agree" at 21.98% (20 out of 92 responses), and the third-highest response at 15.38 % (14 out of 92 responses) was "Strongly Agree." Demonstrated in Table 5 are the data.

Table 5
Response to Research Question 4

Survey Item #	Likert Description	Frequency	Percentage
11 MLS & K3 Impact Constr.	Strongly Agree	14	15.38%
	Agree	20	21.98%
	Somewhat Agree	28	30.77%
	Somewhat Disagree	11	12.09%
	Disagree	10	10.99%
	Strongly Disagree	8	8.79%

Note: N= 92 participants responding to survey item

DISCUSSION OF FINDINGS

Multiple survey respondents referenced misconceptions about play as an educational tool, suggesting that parents, administrators, or even some teachers may not recognize that children learn through play. While a majority of respondents referred to exploration and discovery at the child's own pace. Social skills such as turn-taking, sharing, cooperation, negotiation, and problem solving were the most prevalent type of learning through play mentioned. However, academic learning and physical aspects of learning were also trending throughout the data collected. Aligning with Conyers and Wilson (2015) as they stressed, learning is not just a cognitive function. Thinking, feeling, and physicality all come together to develop new knowledge and skills" (p. 38). Active play allows learners to practice and extend abilities (Lisko & O'Dell, 2010).

Furthermore, there is an overall perception among early childhood stakeholders that the high accountability expectations somewhat discourage play. More and more children are denied opportunities for developmentally appropriate activities, such as play, as early childhood teachers and administrators struggle to keep up with increased rigor and accountability measures (Madsen et al., 2014).

Finally, with the additional challenges and pressures that accompany increased rigor and accountability measures (Madsen et al., 2014), play has taken a backseat as an educational tool (Bailey, 2011; Gagnon et al., 2014). Data collected somewhat suggests the perception that Missouri Learning Standards and kindergarten through third grade expectations have a negative impact on the use of constructivist learning theory within the early childhood classroom and on the use of play as an educational tool.

CONCLUSION AND IMPLICATIONS

Ultimately, in exploring stakeholder perceptions of play utilizing the lens of Piaget's (1929) constructivist learning theory (Olusegun, 2015), this study implored participants to reflect upon their beliefs regarding play and the application of developmentally appropriate strategies in early childhood education. In analyzing the data collected, it was clear that teachers believed that play is learning in one form or another. However, a majority of administrators discussed perceived barriers to the use of play as an educational tool within the early childhood classroom setting due to high stakes accountability measures. Barriers referred to most often included state standards, assessments, and data as well as administrator expectations and misconceptions about play. Unfortunately, the bulk of teachers suggested that these perceived barriers reduce, or in some cases eliminate, the use of play as an educational tool in early childhood classrooms.

The caveat is that there are those early childhood teachers and administrators who acknowledged the fact that play can be instructional, even in times of rigor and high accountability. There were a few respondents who suggested that, while the standards designate the expected outcomes, teachers and administrators willing to take the time to think outside of the instructional box will still find ways to incorporate elements of play into the daily routine as a means of learning. Play has much to offer in the early childhood learning environment, and as research continues to mount in support of the use of play as an educational tool, hopefully society as a whole will begin to better recognize its instructional potential

Though this study focused solely on school districts in the state of Missouri, this trend was recognizable. In addition, society rarely comprehends what learning looks like at this early stage of child development. Consequently, not always reflected in early childhood settings are developmentally appropriate practices. These researchers stress the need to better advocate for developmentally appropriate practices. Which, in the field of early childhood, includes the application of a constructivist learning approach and the incorporation of play into learning objectives. Policy-makers also need to consider the establishment of play-based learning standards so that the overarching educational goals and expectations are developmentally appropriate for all young children.

While the findings of this study echoed and expanded upon much of the literature available on the subject of early childhood interventions, further research is needed. Replication of this study applied to different school districts either within the state of Missouri, across the United States, or as a comparison among different countries could provide insights on commonalities across early childhood programs. It could also be interesting to compare the assessment data of kindergartners coming from early childhood programs utilizing a constructivist approach and

incorporating play versus data of kindergartners who came from more rigid early childhood programs that do not use these types of approaches.

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