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Can Play-Based Learning Provide Adequate Learning Experiences for Young Children?

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Can Play-Based Learning Provide Adequate Learning Experiences for Young Children?

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Northwestern College

An Action Research Project Presented
in Partial Fulfillment of the Requirements
For the Degree of Master of Education

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Abstract

This research study was conducted due to my curiosity in the effectiveness of play-based learning for academic and social emotional growth. I am in my 14th year of teaching preschool at a small Lutheran school. I used my afternoon classroom of 19 students to conduct the study. Screeners in five different areas were conducted before the eight-week data collection period. During the eight weeks, students participated in play-based learning activities to introduce and practice academic and social emotional skills. After the eight-week period, the same screeners were given to the students. Findings from the study revealed student growth in both academic and social emotional skills. I could draw conclusions that play-based learning is an effective way to teach students both social emotional and academic skills.

Keywords: play-based learning, social emotional learning

Can Play-Based Learning Provide Adequate Learning Experiences for Young Children?

When you think of a preschool classroom, what do you picture in your head? Kids sitting at tables and chairs completing worksheets and memorizing letters? Or children exploring ideas and learning as they play and interact with one another? Critical theorists such as Rousseau, Froebel, and Dewey believed that play was significant for young children's learning and development (Platz & Arellano, 2011). The problem is many classrooms are being forced to turn their focus on children's play into something that looks more structured and academic than before. Play is being forced out of early childhood classrooms to make room for more rigorous and controlled academically focused activities. But research has continually demonstrated that academic learning can occur in play-based pedagogies (Pyle et al., 2020). Has play been lost in education?

“Play should no longer be a topic for scrutiny within the curriculum, but rather the question is how we as educators, parents and adults can help maximize and harness the potential that play has to offer,” (Clark, 2017, p. 110). The purpose of this action research plan is to solidify the understanding that play is necessary in early childhood classrooms. “The goals for play-based learning include the development of children's emotional, social, intellectual and physical well-being, as well as equipping them with competences related to life-skills,” (Sethusha, 2020, p. 45). Without play, children may struggle to develop these cognitive, physical, social, or emotional skills or learn how to interact with their peers. *Play-based learning* (PBL) can provide adequate learning experiences for young children.

Looking in the DeWitt Library at Northwestern College and using Google Scholar to search for peer-reviewed journal articles within the last 10 years, I found many research papers that support play in early childhood classrooms. Many psychologists and educationalists have

asserted the importance of play in the role of a child's development (Keung & Fung, 2019). The articles that were selected for the literature review both support the practice of play-based learning and give reasons why it may be declining in classrooms.

Play-based learning in early childhood classrooms provides both foundational skills necessary for success in life and opportunities for academic growth through the intentional selection of materials and proper teacher interactions. Play can be so much more than just children playing with toys. Education about how children are learning through play is crucial for parents and administrators to understand the value of play-based learning in the classroom. Play and exploration should be used together to facilitate learning (Nilsson et al., 2017). Educators need to lessen the gaps among actual practices, beliefs, and policies concerning play and learning to provide quality play-based opportunities for their students (Wu, 2020).

The articles in the literature review will show that play in the classroom is important and that children can use it to gain executive functioning skills as well as reach academic and development milestones. Some research is geared toward a specific topic, like science or nutrition, but the same principles of play can be applied to all other areas in education. There is also information about why there might be pushback to play and why some educators feel pressure to be more academically focused. These articles will show why it is necessary to facilitate play within the classroom and offer natural opportunities for children to learn and grow. We can also learn from Australia, which is committed to "providing universal access to a play-based education program for all children in the year prior to school (Kindergarten)" (Sumsion et al., 2014, p. 4).

Review of the Literature

Benefits of Play-Based Learning

“Play-based learning has been identified as a developmentally appropriate practice incorporating elements of child-centered learning, open-ended inquiry and hands-on experiences” (Keung & Cheung, 2019, p. 627). This is a new idea for some teachers and administrators. The definition of learning is commonly limited to formal learning (Nilsson et al., 2017). The argument over play-based learning arises when play is not considered the same as teaching (Edwards, 2017). Play is not only what happens outside the classroom or “when children are free from adult control and participation” (Nilsson et al., 2017, p. 234). “The value placed on the exploratory potential of play-based learning can appear to be at odds with the role of intentional teaching in promoting knowledge development” (Edwards, 2017). Children associate play with the floor and learning with the table. They also relate play to when a teacher is not near them and learning to when a teacher is guiding them (Taylor & Boyer, 2019). Reframing our thinking and digging deeper into play-based learning, we can determine how it is a valuable and crucial way for young children to learn.

The play-based learning idea is not a new one. Play theorists including Gregory Bateson, Johan Huizinga, and more Brian Sutton-Smith have pushed the idea over the last several decades. The purpose of PBL is to learn while playing. It is child-centered and focused on their interests and abilities. A study done on PBL “shows more effective and deeper learning experiences for students than direct instruction and ‘free play’” (Taylor & Boyer, 2019, pg. 127). Play is important in a child’s development to create experiences to work together, problem solve, resolve conflicts, and build confidence (Taylor & Boyer, 2019).

Different theories of PBL have explored the types of play that children might encounter. Edwards (2017) states there are three types of play: (a) “free play,” which is open ended; (b) “structured play,” which is modeled; and (c) “adult directed play,” which is purposefully framed. All of these play types are equal. One is not more beneficial or more important than another. They can also be used together rather than independently of one another (Edwards, 2017). Taylor & Boyer (2019) break down PBL on a continuum. On one end are free play and inquiry play, which is based on a child’s interests under their own direction. Collaborative play, which is structured and controlled, sits directly in the middle. On the other end, we have playful learning, which is the teacher explicitly doing lessons in a fun and playful way, and learning through games. Taylor & Boyer state that collaborative play is the most beneficial. The teacher can ask questions, provide options to extend play, and facilitate conversations.

A study was done on 300 4-year-olds in 25 early-childhood classrooms on the effect of teacher-designed PBL on knowledge connections about well-being, sustainability, and healthy eating habits (Morris et al., 2018). There were 2 professional learning communities conducted with the teachers. One explained the project and the other gave them a chance to workshop their play-based learning experiences. Over eight weeks, they implemented activities using as many real-life resources as possible. They used a combination of play types and provided the experiences at least twice a week and at the beginning of the day when children were the freshest.

After eight weeks, they assessed children by having them sort healthy and unhealthy food and activities into a green ring (good choices) and a red ring (poor choices). They also sent a survey home to parents about changes to the food choices their children were making at home. The results were that children were building connections on well-being and sustainability after

the three-month learning period. The survey results also indicated they were making healthier choices at home. However, the accuracy of the survey relied on parent reports and could be affected if parents only offered healthy choices (Morris et al., 2018).

Another study was done on PBL in Hong Kong using both qualitative and quantitative data. A questionnaire explored kindergarten teachers' conceptions of effective play-based learning, and in-depth interviews were given on developing PBL (Keung & Cheung, 2019). The results from the surveys concluded that nearly all interviewed said play is a benefit to children's learning and is an effective strategy to use in the classroom. The teachers felt they had varying roles in PBL. Sometimes they were participants and other times they were facilitators in the play. When groups of children were having difficulties playing, teachers would change their role and teach them how to play. If play was going well and everyone was having fun, teachers could simply play along (Keung & Cheung, 2019).

Data from the interviews also looked at the importance teachers assigned to involving families in children's play. It was important to continue the play at home and have parents engage in that play. Continuing to model engagement was important to make that home and school connection. Parents would then also be able to observe and record what children are learning through play at home. They could pass that information along to the teacher, who can then use that information to guide which activities to do at school (Keung & Cheung, 2019).

To some, play-based learning is still in the exploratory stages. But we already know so much about how children develop and grow that it is easy to see the connections between their learning and PBL. Play-based learning is set up to develop social emotional skills. During play, students practice communication, share ideas, express feelings, take turns, clean up, and share materials (Taylor & Boyer, 2019). It is difficult for everyone to jump on board with PBL because

teachers are pressured to have quantifiable learning outcomes (Nilsson et. al, 2017,). Play-based learning doesn't have a final assessment and checklist to mark off all the things each child has learned. However, we want children to develop their imaginations and think for themselves. PBL is one way to help them do just that. "Abstract thinking is a prerequisite for play but also develops in play" (Nilsson et al., 2017, p. 235). We can find the relationship between play-based learning and intentional teaching and create a new way to help our little ones learn and grow.

Decline of Play in Classrooms

"U.S. children's time spent in unstructured play has been declining over the last several decades. It's a trend often referred to as 'schoolification'" (Kane, 2016, p. 290). Politicians and parents have placed an emphasis on student achievement and accountability, which has led to a more academic preschool setting. A study done in Australia talked with teachers in focus groups about concerns they had in education. A topic that kept coming up was the "erosion of play" (Barblett et al., 2016). Pressures from government, mandates of more rigorous curriculum, a misunderstanding of play, and undervaluing its importance in the development of children were cited as reasons. "The push for more formalised teaching of learning areas such as literacy and numeracy, involving educator-directed, skill-based activities, were also cited as issues that affected the erosion of play-based learning," (Barblett et al., 2016, p. 38).

Some preschools are trying to draw students in by preying on parent anxieties that their young child isn't receiving proper educational experiences through play. They offer "schoolification" as an alternative (Kane, 2016). "Critics argue that this process results in age-inappropriate instruction and an early education that focuses on a narrow range of cognitive skills" (Kane, 2016, p. 290). The perception of play and not understanding its importance have most likely played a role in its decline in early-childhood classrooms. Play has long been backed

by theorists, like Lev Vygotsky and Jean Piaget, for the powerful means of self-teaching and its ability to help children develop self-regulation skills and a range of developmental needs (Kane, 2016). We should be keeping play as a focus in early-childhood classrooms.

In a study done in Canada, 100 kindergarten teachers were surveyed and interviewed about their perspectives on play in the classroom. “Teachers commonly cite a lack of training and professional development in using play-based learning strategies” (Pyle et al., 2020, p. 57). Teachers’ lack of confidence or training in successfully implementing play-based learning has an impact on the decline. “But it may also reveal the retention of a narrow definition of play and the difficulty correcting a definitional misalignment between play (as free play) and play-based pedagogy” (Pyle et al., 2020, p. 57).

One group of teachers from the study viewed play as free play only by the children. These teachers did not integrate much academic learning into play, as there was limited teacher involvement (Pyle et al., 2020). The second group of teachers had a broader view of play and interacted with the students during their play. They were asking higher-level thinking questions and implementing academic skills within the students’ exploration and play. Their process was “initiated by children and guided by educators” (Pyle et al., 2020, p. 69). Results from this study showed that a lack of education or training on play-based learning was less important than how teachers viewed the definition of play and the purpose of play in education.

The decline in play in the classroom can also be attributed to the media’s narrow depiction of play “as a pleasurable, child-directed activity distinct from academic learning” (Pyle et al., 2020, p. 78). A study looked at 170 different news articles over a six-month span that contained the keywords *play-based learning*. “Adopting a narrow definition of play—rather than integrating contemporary notions of a broader range of play that includes teacher involvement—

biases the media discourse at the outset by setting up a false dichotomy between play and academic learning” (Pyle et al., 2020, p. 79). The media can shape parents’ and educators’ thinking about play in the classroom. If parents aren’t enrolling their children in play-based classrooms because they are worried about the lack of academic growth, this causes schools to shift their focus away from play to maintain enrollment. But this can also work the other way:

Just as the media may have inadvertently shaped or reinforced parents’ perspectives through the perpetuation of a narrow definition of play, media may also be an effective channel for updating those perspectives emphasizing teacher involvement in play and the nuances and benefits of play-based pedagogies. (Pyle et al., 2020, p. 79)

Let’s use the media to normalize play in early childhood classrooms again and agree that play is a legitimate pedagogical tool.

Pressures of Using Play-Based Learning

“Too often, the centrality of play in children’s lives is misunderstood and ignored. Play is perceived as deficit time, better filled by adult-directed, purposeful activities. Growing pressure on children to achieve in school is reducing the perceived legitimacy of playfulness,” (Phajane, 2019, p. 13963). Along with other factors, this is causing teachers to feel pressure to switch from a more play-centered classroom to one that leaves out children’s need for play and is centered around curriculum and academics. In a study done in Hong Kong with 15 principals and 14 kindergarten teachers, researchers collected data through focus groups and questionnaires. Parent concern about play in the classroom was a common theme. “Parents’ concern about their children’s academic learning creates tension between teachers’ perceptions of play-based learning and their actual curricular practice” (Keung & Fung, 2020, p. 245). Parents expected specific work to come home to show what their child learned at school, but play-based learning

doesn't have worksheets to send home. One teacher told interviewers that "parents are intervening forces complicating the practice of her play-based learning perceptions" (Keung & Fung, 2020, p. 245). It's unsurprising that pressure from parents to see a particular type of learning taking place would be hard on teachers.

In another study done in Canada of 34 kindergarten and first-grade teachers, interviews were conducted and participants' answers were recorded. One of the questions was, What do you see as the challenges and benefits of a play-based approach to learning? Several kindergarten teachers shared parent concern over the "transition from a play-based kindergarten program to a pencil-and-paper-based grade 1 program," (Peterson et al., 2015, p. 44). "A lot of parents don't know a whole lot about it and they didn't experience it themselves, so for them, they're very worried" (Peterson et al., 2015, p. 44). So lack of knowledge from parents can pressure teachers to shy away from play-based learning. Another teacher in the study said, "I think one of our biggest challenges is getting our administration and our parents to realize the value in play, so that our colleagues and our parents aren't saying that kids are just coming to school to play" (Peterson et al., 2015, p. 44). Educating parents and administrators about PBL can be helpful in eliminating pressures about doing more than play in classrooms.

Another study followed a sample of kindergarten teachers in the U.S. and their discussion about play on various message boards. "A dominant theme throughout the discussions involved teachers debating the kind, if not the very existence, of benefits that result from play" (Lynch, 2015, p. 354). There were also discussions about the pressure teachers feel from other teachers and principals to require them to limit the amount of play in their classrooms. They feel they need to focus on academic goals and don't have time for play. There were mixed opinions about whether playing in preschool prepares students for kindergarten. Some teachers felt the children

coming from play-based preschools were academically behind, but all the teachers agreed that play-based learning helped students to increase their social emotional skills and helped them learn skills like sharing and cooperation. Teachers renamed play activities to make them sound more academic to parents and administrators. Play was called “active learning” and nap time became “sensory differentiation time” (Lynch, 2015). It is important to find ways to help teachers include play in their classrooms rather than just inform teachers of the benefits of play.

Academics, Social Emotional Skills, and Play-Based Learning

How can play increase children’s academic skills? This is often asked by opponents of play-based learning, as they would like administrators, teachers, and parents to believe that play cannot develop a child’s academic skills. However, researchers have found that “opportunities for independent exploration of the environment (play) is a crucial component of pedagogical practice and again requires trust in children’s capacity to achieve developmental outcomes through their own process,” (Obee et al., 2020, p. 107). Sixteen learning centers across Melbourne, Australia, participated in a study examining how Edwards’ three types of play affected children’s learning about biodiversity concepts (Edwards & Cutter-Mackenzie, 2013). The research group was divided into six clusters, with each cluster implementing the play types in a different order. For example, one cluster implemented open-ended play first, then modeled play, and finally purposefully framed play. Teachers selected different aspects of biodiversity, such as animal habitats, plants, or habitat destruction, as focal points of the play (Edwards & Cutter-Mackenzie, 2013). Biodiversity was selected as the topic for this study because the researcher felt the concepts associated with it were “important for children to know and understand” (Edward & Cutter-Mackenzie, 2013, p. 335). These concepts build upon each other,

and if students understand some basic biodiversity ideas, they can apply them to other sustainability practices.

Teachers planned pedagogical strategies based on their play type order and then recorded results in journals. The results from the clusters “suggested that open-ended play was the type least likely to prompt teachers to identify a biodiversity concept and the pedagogical strategies they would use to engage children with the concept” (Edward & Cutter-Mackenzie, 2013, p. 338). Purposefully framed play prompted the most concepts and strategies. Findings from the study suggested that combining the three types of play was the best way to engage students and create opportunities for children to learn about the concepts the teachers chose. Play-based learning was able to provide students meaningful experiences and opportunities to learn the concepts of biodiversity and sustainability. These same ideas can be applied to other academic areas and concepts.

Another study was done in a preschool in Sweden, focusing on how preschool children might develop executive functioning skills while participating in some science activities. “The intervention was designed in the form of conceptual play, which is a play-based learning approach that embeds scientific concepts within the child’s everyday activities at preschool” (Vidal Carulla et al., 2021, p. 3). The data was analyzed after each session was completed so the content for the next session could be adjusted accordingly to fit the needs of the students. All the sessions were then observed for three major executive functions: working memory (WM), inhibitory control (IC), and attention shifting (AS). These components were observed through verbal cues or body language (Vidal Carulla et al., 2021). The researcher felt it was important to analyze the children’s executive functioning because it is a relevant indicator of school readiness. The study results revealed that play-based science activities were important in a preschool

setting, “not only for the development of science itself but also for supporting the development of children’s AS and IC, which is a basis for their social development” (Vidal Carulla et al., 2021, p. 9). So not only does play-based learning have an impact on social emotional skills of a developing young child, it can impact their academic development in positive ways.

Methods

Participants

This action research study took place in a Lutheran preschool classroom in Waverly, Iowa. The study was done in a preschool setting that meets four afternoons a week from 12:10 p.m. to 3:10 p.m. The preschoolers in the class are 4- and 5-year-old students made up of 10 girls and 9 boys. They are primarily Caucasian and all of them are English speaking, with one student having English as his second language. One student is on an Individualized Education Program (IEP) for speech and learning.

The research started after the winter assessment period on Feb. 11, 2022, and ran until April 15, 2022, when another round of assessments took place to prepare for year-end assessments. Because of this, no additional assessments were necessary for the study. The focus was on providing children a rich play environment through which they could learn new skills and concepts.

Variables

The independent variable that was studied is play-based learning, as opposed to direct instruction of the material. The dependent variable is the developmental growth of students. There are some confounding variables in the study, such as gender, ethnicity, socioeconomic status, special needs (IEPs), English-language learners, and the setting. Data collected include observations of students during play, individual growth and development indicator (IGDI)

scores, and Teaching Strategies GOLD assessment data over several areas. The observations are qualitative data. IGDI scores and data from GOLD are quantitative and qualitative. The confounding variable data is quantitative.

Teacher-researcher observations do not have any reliability and validity information available. GOLD data comes from Teaching Strategies GOLD, which has completed studies to determine validity and reliability:

The Teaching Strategies GOLD assessment system yields highly valid and reliable results. The results of the current research strongly validates that teachers are able to use Teaching Strategies GOLD to make valid ratings of the developmental progress of children across the intended age range from birth through kindergarten. (Teaching Strategies Inc., 2011)

IGDIs “meet the requirement for criterion validity in that they measure the general outcome that they are intended to measure” (What are IGDIs?). “IGDIs meet the requirements for reliability, including inter-observer agreement, internal consistency, and reliability of alternate forms, so as to provide accurate information for use in intervention decision making” (What are IGDIs?).

Data Analysis

The specific technique used to analyze the data is two-fold. The winter and spring scores from IGDIs and GOLD checkpoints were entered into a graph so I could visually see if there was a quantitative increase or decrease. Then a dependent samples t-test was done with the scores to determine growth. I took the classroom observations that were done during play and compared the notes to the scores from the assessments. This helped me see the whole picture of the children and helped explain why a score did or did not change. For instance, a student who plays by themselves a lot may not increase their scores as much as another child who frequently plays

with others, or a child who was absent frequently may not see a change in their scores. The observations also helped me make changes in materials to offer students during play to improve their scores for the next checkpoint.

Research Questions and IRB Exemption

The research questions this study attempts to answer are “Does play-based preschool provide proper academic growth for children?” and “Can play-based preschool increase social/emotional skills?” This action research study has an Institutional Review Board exemption. No student names are given in the data and analysis, and there was no disruption to the students’ normal preschool day.

Data Collection

For this action research project, I used a mixed-method study. The data includes winter IGDI scores in five areas: (a) picture naming, (b) rhyming, (c) sound ID, (d) “what doesn’t belong,” and (e) alliteration. I used those same areas and the students’ spring IGDI scores to compare growth. The screeners were administered on an iPad individually with each student. Screeners were conducted outside the classroom in the hallway so students could focus better and hear the questions without classroom noise and distractions. The screeners were given Monday, Tuesday, Thursday, and Friday afternoons over a period of one to two weeks. The students were pulled from the classroom to complete one section of the screener at a time during their free play or interest-area time, which is when students have the choice to play in different areas of the classroom. The picture-naming screener asked the child to name the picture shown. Only one correct answer is accepted. The rhyming screener showed three or four pictures, and the student chose the picture that rhymed with the first picture given. The test administrator verbally told the student what the pictures were. The sound ID screener had three letters pictured,

and the iPad played a letter sound for the student to match to one of the letters. The “what doesn’t belong” screener showed the student three different pictures and asked them to choose which picture doesn’t belong. The alliteration screener showed the student three pictures, and the iPad played a letter sound for the student to match to the picture that began with that sound.

The winter testing dates were Feb. 7-11, 2022. The spring testing dates were April 11-15, 2022. Between the two testing periods, the class participated in play-based learning. There was limited direct instruction during their interest-area time. Students were free to move from one area to another as they chose. For example, they might start out building a block tower, then move to the sand table, and then move over to the library to read a book. During this interest-area period, I tried to focus on interaction with students in each interest area during their play. I also conducted daily informal observations while students were at the interest areas; however, this data does not provide validity and reliability for this action research project. The daily observations are subjective, and there are many variables in play that could affect the observations. The daily informal observations were used to gauge student engagement and their continued interest in the objects in the different interest areas. If students were not consistently playing in one interest area, I changed the items in that area to increase engagement and interest. Seeing lack of engagement also allowed me to engage with those students at the interest areas to encourage reengagement. Engagement with the students in the interest areas included asking higher-level thinking questions, practicing phonemic awareness skills like rhyming and letter sounds, or scaffolding social skills and peer communication. The quantitative data from the two testing periods was then analyzed to determine growth in all areas.

I also used qualitative data from Teaching Strategies GOLD. The data was collected during the periods as the IGDIs data, Feb. 7-11, 2022, and April 11-15, 2022. The objectives

“manages feelings” and “solves social problems” (see Appendix A) were the two target objectives I focused on. This data was observational and collected daily through anecdotal notes or pictures taken during interest-area time. The data was recorded in a journal with entries for each student, and I subjectively leveled each student in both objectives according to examples given and age-band goals from the Teaching Strategies GOLD website. The objectives (Appendix A) in Teaching Strategies GOLD follow widely held expectations for children from birth through third grade.

Data Analysis

Quantitative Data Analysis

Quantitative data was collected during five different screeners through the Individual Growth and Development Indicators assessment. Students were screened on (a) picture naming, (b) rhyming, (c) sound ID, (d) “what doesn’t belong,” and (e) alliteration. Using a dependent samples t-test, I analyzed the scores from the screeners to determine if the use of play-based learning was a factor in the increase of the scores.

The winter screening of picture naming (see Table 1) indicated students were receiving an average score of 49 ($M = 49$, $SD = 1.88$) on accurately using vocabulary to name different pictures. After the students participated in the two-month window of play-based learning and not direct instruction, the screener was given again. The spring screening of picture naming indicated students scored an average of 50.17 ($M = 50.17$, $SD = 1.69$) on the same screener. Results of the dependent samples’ two-tailed t-test reveal a significant difference between the winter and spring assessment, $t(17) = -10.62$, $p = .025$. The intervention of play-based learning increased their picture naming knowledge.

Table 1*IGDIS screener score results*

Student	Winter IGDIS score Picture Naming	Spring IGDIS score Picture Naming
Student A	50	50
Student B	45	50
Student C	51	48
Student D	50	51
Student E	46	48
Student F	51	54
Student G	47	48
Student H	47	51
Student I	49	49
Student J	47	50
Student K	50	49
Student L	50	48
Student M	50	52
Student N	51	52
Student O	48	50
Student P	n/a	n/a
Student Q	51	51
Student R	49	50
Student S	50	52

The winter screening of rhyming showed students scoring an average of 47 ($M = 47$, $SD = 2.33$). Table 2 shows the scores from both winter and spring assessment periods. Two months of play-based learning was used with students in the classroom, and the rhyming screener was given again. The spring rhyming screener indicated students scored an average of 49.33 ($M = 49.33$, $SD = 2.25$) on the assessment. Results of the dependent samples' two-tailed t-test reveal a significant difference between the winter and spring assessment, $t(17) = -5.45$, $p < .001$. The intervention of play-based learning increased their rhyming knowledge.

Table 2*IGDIS screener score results*

Student	Winter IGDIS score Rhyming	Spring IGDIS score Rhyming
Student A	51	51
Student B	48	50
Student C	51	51
Student D	48	53
Student E	43	50
Student F	43	43
Student G	46	48
Student H	46	49
Student I	47	51
Student J	45	47
Student K	49	51
Student L	48	50
Student M	45	48
Student N	49	51
Student O	48	48
Student P	n/a	n/a
Student Q	45	48
Student R	48	51
Student S	46	48

The sound ID screener was given in the winter, and students scored an average of 50.06 ($M = 50.06$, $SD = 2.75$). After two months of play-based learning in the classroom, the screener for sound ID was given again. The average score of students in the spring was 52.56 ($M = 52.56$, $SD = 1.29$). Scores are shown in Table 3. Results of the dependent samples' two-tailed t-test reveal a significant difference between the winter and spring assessment, $t(17) = -5.53$, $p < .001$. The intervention of play-based learning increased their sound ID knowledge.

Table 3*IGDIS screener score results*

Student	Winter IGDIS score Sound ID	Spring IGDIS score Sound ID
Student A	51	53
Student B	50	52
Student C	51	52
Student D	51	54
Student E	50	53
Student F	47	52
Student G	43	51
Student H	49	51
Student I	47	51
Student J	50	51
Student K	52	54
Student L	53	55
Student M	53	53
Student N	53	54
Student O	51	53
Student P	n/a	n/a
Student Q	49	52
Student R	54	54
Student S	47	51

When the winter assessment of the “what doesn’t belong” screener was given (see Table 4), students averaged a score of 53.28 ($M = 53.28$, $SD = 4.50$). During the two months following the assessment, the students were engaged in play-based learning in the classroom. The “what doesn’t belong” screener was then given again in the spring. Students scored an average of 56.44 ($M = 56.44$, $SD = .86$) after the two-month play-based learning period. Results of the dependent samples’ two-tailed t-test reveal a significant difference between the winter and spring assessment, $t(17) = -3.11$, $p = .006$. The intervention of play-based learning increased their knowledge of determining what objects don’t belong in a group.

Table 4*IGDIS screener score results*

Student	Winter IGDIS score WODB	Spring IGDIS score WODB
Student A	57	57
Student B	57	57
Student C	57	57
Student D	55	56
Student E	57	56
Student F	57	57
Student G	46	55
Student H	48	57
Student I	54	57
Student J	57	57
Student K	49	56
Student L	57	56
Student M	53	56
Student N	55	57
Student O	57	57
Student P	n/a	n/a
Student Q	50	57
Student R	50	54
Student S	43	57

The last screener given in the winter assessment period was for alliteration. Scores for the alliteration screener are listed in Table 5. The average score of students on this alliteration section was 48.22 ($M = 48.22$, $SD = 2.76$). Following this screener, students were involved in play-based learning in the classroom, and there was limited direct instruction given on phonemic awareness skills. The screener was given again in the spring, and students scored an average of 51.11 ($M = 51.11$, $SD = 1.81$) on the alliteration section. Results of the dependent samples' two-tailed t-test reveal a significant difference between the winter and spring assessment, $t(17) = -4.05$, $p < .001$. The intervention of play-based learning increased their knowledge of alliteration.

Table 5*IGDIS screener score results*

Student	Winter IGDIS score Alliteration	Spring IGDIS score Alliteration
Student A	50	53
Student B	46	48
Student C	48	50
Student D	49	53
Student E	46	50
Student F	49	49
Student G	44	50
Student H	48	49
Student I	45	53
Student J	53	52
Student K	53	53
Student L	52	50
Student M	46	53
Student N	50	52
Student O	45	53
Student P	46	45
Student Q	48	53
Student R	50	50
Student S	46	49

Qualitative Data Analysis

Qualitative data was collected primarily through general observations during this research. I continually assessed student engagement in the interest areas and helped facilitate engagement or changed materials accordingly based on these observations. Some observations were used to level the two target objectives from Teaching Strategies GOLD (see Appendix A). The objectives “manages feelings” and “solves social problems” were the two target objectives I examined. After reviewing observations and pictures from the time students spent in the interest areas, some students increased their levels in both objectives. Figure 1 shows the winter checkpoint data from both objectives, and Figure 2 shows the spring checkpoint data from the

same objectives. Objective 1b showed 10% growth as a few students increased their levels.

Objective 3b showed that all students increased from one level to the next highest level.

Figure 1

Winter checkpoint for Teaching Strategies GOLD objectives

Snapshot By Dimension															
Checkpoint Period: Winter 2021/2022															
Table 1: Social-Emotional															
Objectives / Dimensions	Age or Class/Grade	No t yet	1	2	3	4	5	6	7	8	9	10	11	12	13
1b. Follows limits and expectations	Pre-K 4 class/grade							7	12						
								36.84 %	63.16 %						
3b. Solves social problems	Pre-K 4 class/grade					1	10	8							
						5.26 %	52.63 %	42.11 %							

Figure 2

Spring checkpoint results for Teaching Strategies GOLD objectives

Snapshot By Dimension															
Checkpoint Period: Spring 2021/2022															
Table 1: Social-Emotional															
Objectives / Dimensions	Age or Class/Grade	No t yet	1	2	3	4	5	6	7	8	9	10	11	12	13
1b. Follows limits and expectations	Pre-K 4 class/grade						1	4	14						
							5.26%	21.05 %	73.68 %						
3b. Solves social problems	Pre-K 4 class/grade						2	9	8						
							10.53 %	47.37 %	42.11 %						

Discussion

Summary of Major Findings

The action research results indicate that play-based learning is beneficial to preschool students and helps increase their academic and social emotional skills. The increase in students' test scores in all five areas of IGDI during the play-based learning study provides evidence of the benefits gained in reading readiness skills. The increase in most students' levels on the Teaching Strategies GOLD objectives provides evidence to growth in social emotional skills from the play-based learning in the classroom. The information gathered from this study, along with further research in this area, should allow teachers the opportunity to offer more developmentally appropriate activities for early-childhood students in the classroom. The push to a more academic and rigorous curriculum is not necessary to see growth and learning in students. Children are learning through play experiences, provided they have rich materials and authentic opportunities for play. Drawing on Vygotsky's theories of play and the results from the study, let's look at "learning and development not as an outcome, primarily, of instruction and teaching, but as an outcome of play and exploration" (Nilsson et al., 2017, p. 231).

Limitations of the Study

Although there was significant data to support play-based learning being an effective tool in the classroom, there are limitations to these findings. The study was only able to take place over a short two-month period. Ideally, this process would take place from the beginning of the school year in September to the end of the year in May. There was also a small sample size used during the study. More classrooms and students involved could solidify or change the results. There is also no true way to know whether students learned new information strictly through play at school. There are many outside factors, from parents working with their students at home,

to the direct instruction given during large group time that could factor into the growth shown in the students' skills. Additional studies could address some of these limitations.

Further Study

Future research could be done on a larger scale, involving more classrooms over a longer period of time. Using a control group and an experimental group might more accurately show if the growth in scores is because of the play-based learning being implemented, or if the children are learning and maturing from other experiences. More data on play-based learning could help administration and directors understand the rich play experiences that young children need to become passionate learners. More professional developmental and education on play-based learning is also needed so that “teachers can understand the ways in which child-initiated play, when combined with playful, focused learning, leads to lifelong benefits in ways that didactic drills, standardized tests, and scripted teaching do not” (Miller & Almon, 2013, p. 44). Schools will need funding and access to materials to be able to adequately provide high quality play-based learning experiences. Lack of materials and inadequate teacher training will be a barrier to properly and effectively implementing play-based learning in the classroom.

Conclusion

Early-childhood teachers continue to face challenges in incorporating play-based learning in the classroom. Even as research continues to show that children are growing from play-based learning, administrators and teachers alike are not keen on the idea of relying on play-based learning in the classroom. The focus on a rigorous academic curriculum, with direct instruction from the teacher, is common practice in early-childhood classrooms. However, as Nilsson et al. (2017) point out:

Learning is not the same as teaching. Teaching can be planned through curricula and documents; it can be organized in different ways and implemented more or less successfully. One can provide more or less good conditions for learning; you can organize for learning, but teaching does not cause learning in the casual sense. (p. 242)

This is where play comes in. Play and exploration in the classroom can provide students with opportunities to learn academic and social emotional skills. Many experts believe a decrease in play contributes to increased anger and aggression in children, showing up as behavior problems in the classroom (Miller & Almon, 2013). Let's give young children a stress-free and happy environment to learn and explore, not one that is potentially harmful and stressful to their mental health.

As educators, we should give our students the best possible chance for success in the classroom and their future educational experiences. Education about the benefits of play-based learning needs to be presented to administrators and other educators across the nation. This study provides evidence that educators should use play-based learning to provide a well-rounded approach that can support a variety of children's needs. This may be a difficult task, as "encouraging play in early childhood educational settings may require a dramatic shift in social and parent perceptions surrounding early childhood education and learning" (Kane, 2016, p. 298). Children have limited time to play; let's change that. "According to a Vygotskian perspective, play is the manifestation of experience. Rich experiences in 'rich' contexts give children access to materials for building combinatorial activity, which in turn, results in the production of new objects and ideas" (Edwards & Cutter-Mackenzie, 2013, p. 341).

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Appendix A

Teaching Strategies GOLD Objectives 1b and 3b

