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Implementing Play-based Learning

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Capstone Project: A School Improvement Plan

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Abstract

This school improvement plan discusses play-based learning (PBL), a subject often debated within an early childhood setting. This plan will review current research to define what play-based learning is and the impact PBL learning has on the development of preschool and kindergarten students. Research shows that PBL learning can be highly effective for academic growth and that children learn best in this type of setting. PBL lets children make connections between their personal lives and their environment. In addition, it provides children with joyful experiences associated with their learning, adds motivation, and keeps children's attention. Consistent, intentional planning that promotes engagement, provides hands-on activities, and utilizes the environment effectively will maximize PBL learning in preschool and kindergarten classrooms. The purpose of this school improvement plan is to articulate the benefits of PBL learning and increase the amount of time PBL is used in the preschool and kindergarten classrooms at Mt. Pleasant Community School District.

Keywords: PBL learning (PBL), developmentally appropriate practice (DAP), preschool, kindergarten

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Benefits of Play-Based Learning

Schools are given a choice of whether to incorporate PBL in their early childhood settings. However, they are not given the choice of incorporating academics. The problem is that some schools choose to see these elements as two separate entities, others integrate them, and some do not incorporate PBL learning at all. Years ago, schools were not presented with this problem. Children in preschool and kindergarten were not graded with a report card, and a child could not fail (Learning, 2020). Their teachers would simply report their observations of their students. Developmental milestones would be discussed and celebrated with parents. Teachers would also show families what the kids were learning through the play they were involved in. Given studies showing that PBL learning can be more effective than direct instruction at improving outcomes for early childhood learners (Boryga, 2022), all preschool and kindergarten classes should deliberately incorporate PBL learning.

Background

PBL learning (PBL) has proven beneficial in early childhood settings. PBL has been linked to the development of 21st-century learning skills, which include collaboration, communication, social-emotional learning, critical thinking, creative innovation, and confidence. PBL is also associated with supporting other skills such as language development and math outcomes (Bell, 2010). Unfortunately, PBL is decreasing in the early childhood setting (Gray, 2011). The problem is that kindergarten and preschool educators feel increased pressure to prove students' academic achievements as they work within academic systems influenced by assessments and a standard-driven curriculum focused on measurable learning outcomes at the expense of play (Nilson et al, 2018). For example, kindergarten students in the Van Allen Elementary School in Mt. Pleasant, Iowa spend on average of about 10% of their day in play.

Teachers from Van Allen communicated that this time is spent in large motor play, with no PBL activities led by the children or guided play with a teacher. Van Allen Elementary preschool students at Little Panthers spend around 25% of their day with PBL learning.

Not only are academic achievements more highly rated in early childhood settings, but children are also losing out on other developmentally appropriate skills achieved through the experience of play (UNICEF, 2018). To help with this problem, classrooms should not have to choose between academic success and PBL, but rather, educators should find a balance between both. Play and learning can be implemented as quality play, allowing children to engage in meaningful learning (Nilson et al, 2018).

Objective

The purpose of this school improvement plan is to increase the amount of time children at Van Allen Elementary School spend in PBL, specifically in the preschool setting from approximately 25% to 55% and in the kindergarten classroom from approximately 10% to 25%. This plan will describe how this change can be implemented in both settings. This project will also explain the benefits of increasing PBL learning within the early childhood classroom. The knowledge gained from this research will provide a better understanding of PBL learning benefits to administrators, community members, parents, and other educators. They will gain a better understanding of the value that PBL brings to a classroom, including raising students' academic achievement. This proposal will also help teachers resourcefully plan and work collaboratively with their team members. Ultimately, through this project teachers will learn that play can be a developmentally appropriate teaching tool that will help their students strive and meet developmental and learning expectations. NAEYC states that developmentally appropriate

practices are methods that promote each child's optimal growth progression and learning. This goal can be accomplished through a PBL approach to joyful, engaged learning.

Scope

Research for this plan was drawn from the ERIC (Education Resources Information Center) database, the WorldCat discovery tool through DeWitt Library, and Google Scholar. Most of the studies included in this school improvement plan were published in peer-reviewed journals and scholarly articles within the last ten years. The area of research included PBL learning, child-initiated learning, along with child-directed learning, free play in early childhood classrooms, and early childhood education. The research also included information on the social-emotional benefits of PBL, academics and play, history of play in schools, and the overall health of children when they experience play in the classroom.

Thesis

Underlying this plan is the research-supported belief that providing a classroom full of rich, hands-on experiences, such as PBL learning, is the most developmentally appropriate and effective practice for early childhood learning. Theorists strongly believe in using PBL learning practices because they can positively contribute to a child's academic and overall developmental growth. To best serve students within the Van Allen preschool and kindergarten classrooms, it would be in the greatest interest of each child to have their play opportunities increased. Children need to have the opportunity to openly explore and engage with the environment around them.

Through play, students can develop many learning skills, including math, literacy, communication, social-emotional learning, critical thinking, creative innovation, and confidence (Blinkhoff et al., 2023.) When teachers effectively plan and implement PBL learning strategies, they will see positive effects on their students' overall development.

Overview

The body of this paper begins with a literature review. This review begins by defining PBL learning and examining the different types of PBL learning. This topic will be addressed by discussing child-initiated, teacher-initiated, and free-play learning; developmentally appropriate pedagogy for early childhood; and evidenced-based meaningful play. The next section explains the history of PBL and the findings that gave PBL learning its foundation. This school improvement plan will also discuss what benefits arise academically from PBL learning, including literacy, mathematical, and social skills. The final portion of this paper describes steps to help PBL become a stronger tool for learning in the Mt. Pleasant Community School District.

Literature Review

Learning Through Play

Learning through play is vital for a child's development to experience different kind of experiences. According to Tayler (2015), it is beneficial not only for a child's cognitive development, but their self-awareness, social skills, and becoming an individual. Tayler's research reviews early learning studies directed at understanding children's personal, intellectual, and social development, and encouraging that development. The article argues for superior early childhood experiences and gives attention to the engagement role of adults in advancing young children's growth, reducing the risk of poor development, and supporting positive long-lasting personal, academic, and social benefits. Tayler points out that from infancy, children's experiences involve play. Children learn by experiencing play between other children, adults, and objects in their environments.

Tools are a set of comprehensive features available in a wide range of platforms that assist all learners in reading, writing, math, and communication. Fatai et al. (2014) conducted an

observational study that stated some schools view play and learning as separate tools. Fatai's qualitative study focused on exploring how free play contributes to children's learning. The study took place in an early childhood classroom with 30 kindergarten participants ages three to five. During the study, some children played in groups or played in isolation. All children were engaged in one activity or more until their teacher guided the children back to their classrooms. Researchers observed patterns and themes among students who participated in different types of play, such as the children using collaborative skills and imitation in play. The study showed that free play helps young children learn through trial and error, experiences that help them gain new insights (Fatai et al., 2014.) Another study from Taylor & Boyer (2019) conducted qualitative research that analyzed play and learning as two unique tools of the same importance. Through their detailed investigation, they found that learning in the classroom can become more intentional through play and educators can benefit from play in their classroom when they are more involved in the process. Through play children develop skills and understanding which help further their academic skills.

PBL unites play and educational teaching. Taylor and Boyer (2019) posit that play-based learning needs to be centered on children and focused on their development, interests, capabilities, and developmentally appropriate practice of academic learning. From the very beginning Head Start believed in the idea of learning through play and knew the importance and the benefits it can create for a child's education. Kessel (2018) conducted a qualitative research study investigating play in a Head Start Classroom. The study included reflection from teachers of 17 three-year-old students that were involved in play-based activities. The findings of this observational study revealed that play can be defined as an activity that is self-chosen, self-directed, naturally motivated, enjoyable, guided by abstract rules, imaginative, and actively

engaged by children. The problem is a lack of understanding regarding the value of play and essential learning that can take place when a child engages in play. Kessel (2018) defines purposeful framed play as when the teacher has an objective in mind while the child interacts with the materials. This research advances the overall understanding of the value of play.

Many researchers agree that the key purpose of play-based learning is for children to learn while playing. Kessel (2018) explains that children are universal human beings who develop and learn through biology and their interactions in their world. Another research Vaisarova (2022) conducted a mixed-method research study that explains best practices in preschool classrooms. This study involved 62 preschool teachers and encompassed 1,724 preschool students. This study examined child-led and teacher-directed practices and what resulted in the best outcome for preschool readiness. Vairsarova's (2022) concluded that play-based learning is the best practice for young children, stating that the use of child-initiated learning activities supported growth in many aspects of the child's overall development. Another example of play-based learning and best practice involves researcher Miller and Almon (2009.) Miller and Almon (2009) conducted a research study that involved qualitative and quantitative measures using veteran teachers and 13 kindergarten students ages four and five. Through this mixed-method study, Miller and Almon (2009) observed and collected data for two weeks from a rural Canadian school to see what factors affect children's academic enhancement. Miller and Almon (2009) found that when play is tightly structured, that children are deprived of opportunities to explore initiatives (Miller & Almon, 2009). Play should have purpose and balance; educators need to understand how to define play, interact in helpful ways while children are playing, and explain the vital role of play in children's development (Miller & Almon, 2009).

Not only should play have purpose and balance but play also involves many differences. According to Zosh, et al., (2018) implementing evidence-based practices in play involves two types of play, ranging from free to guided play. Zosh et al. (2018) defines free play as activities that are voluntary, active, flexible, fun, and not affiliated with extrinsic goals. Play should also embody five characteristics: play needs to be meaningful, actively engaging, joyful, repetitive, and socially interactive. In defining guided play, Cavanagu et al. (2017) explains that guided play remains child-directed, but also incorporates scaffolded learning objectives named by an adult. Many forms of play fall in between free and guided play, such as pretend, sociodramatic, thematic, fantasy, rough and tumble. Cavanagu's (2017) additionally states that pairing different types of play with academic skills can yield dynamic learning results. Susan Edwards (2017), a keynote speaker at the Australian Catholic University, indicates "Play can be independent, quiet, and reflective, or it can be enjoyed with peers during active play." In a social play environment, a child's social development skills could change from intrapersonal to interpersonal being by engaging with other peers (Tayler, 2015). Another type of play is peer-mediated play. This type of play involves peer to peer and peer guided play. children in active play serves a critical role in young children's social, affective, and cognitive development (O'Neill et al., 2014).

Miller and Almon's (2009) study found that young children need these child-initiated experiences in the presence of engaged teachers. Such experiences create balance and allow for guidance toward more focused, purposeful experiential learning. According to Parsons et al. (2019), peer-mediated play focuses on having a child observe a peer and then imitate the model. Having a peer model of behavior is just as effective for children with autism or other disabilities as having adult models (Parsons et al., 2019). Play-based learning is one of the simplest ways for children and adults to model skills.

History of Play-Based Learning

Play-based learning isn't a new tool that has been recently discovered. Pyle et al. (2018) conducted mixed-method research using news articles that pertain to play. They concluded that play has been an essential instrument in educational practice and learning for hundreds of years (Pyle, 2018). Play has been a fundamental element in human lives in all cultures throughout history. Pyle's data supports the idea that teachers' intentionality makes a difference in play-based learning classrooms.

Taylor and Boyer (2019) created a case study that explores the definition and history of play-based learning. Theorist Friedrich Froebel (1782–1852) created the first kindergarten in 1873, often referred to as a “paradise garden or a garden for children” (Taylor & Boyer, 2019). For Froebel (1782–1852) play was at the heart of childhood; Froebel was deeply committed to helping children develop and understand the world around them. Rudolf Steiner influences the study of play by recognizing the value of connecting content with an activity to meet children's needs and help push growth (Taylor & Boyer, 2019). Taylor and Boyer (2019) add that play-based learning gained momentum in the 20th century through educational theorists Maria Montessori (1870-1952) and John Dewey (1859-1952). Montessori emphasized children's freedom of choice to engage in learning processes (Taylor & Boyer, 2019). Dewey believed each child was active, inquisitive, and inclined toward exploration (Taylor & Boyer, 2019).

Opinions vary on a variety of topics with children and their education, especially views on play-based learning. One of the longest and most valued views is with theorist Vygotsky. Vygotsky viewed believed that play promotes cognitive, social, and emotional development in children. Theorist Lev Vygotsky (1896-1934) also contributed to how we view play today. Vygotsky wrote a conceptual article discussing theories of the play of children and their mental

development, presenting play as a cognitive process (Taylor & Boyer, 2019). Authors Nilsson et al. (2018) conducted research that debated a redefining study of early childhood education that explained learning and development. During this research it debated that Vygotsky regarded play as an essential vehicle for exploration, creativity, experimentation, socialization, and both imaginative and realistic thinking (Nilsson et al., 2018). Their research was developed from exploration, observations, and diligent qualitative research in three Swedish preschool classrooms. This study contributes to new perspectives on the relationship between play and learning by introducing exploration as a counterpart to play, potentially impacting the design and practice of early childhood education, as well as early childhood education research. These historical and theoretical foundations made it possible for researchers to thoroughly consider the overall benefits to play in learning experiences.

Academics and Play-Based Learning

Many educators and even administrators have a difficult time believing there is a lot of learning going on within the play-based classroom. However, studies show the value of play-based learning. Vairsarova and Reynolds (2022) conducted a quantitative research study investigating which blend of the child- and teacher-directed practices best promotes school readiness among preschoolers. The study revealed that child-initiated play added benefits to a preschooler's education. The study confirmed that play helps children learn to solve problems, work through challenges, build language skills, gain cognitive skills, and learn skills in many academic areas such as math, literacy, science, and social studies. Children in play-based learning settings get to choose activities to engage in based on their interests. Play-based learning is not only valuable in the early childhood levels, but primary grades can benefit from the cognitive, creativity, and social development that play can enhance within children. Allee-

Herndon and Roberts (2021) conducted research on purposeful play in primary grades. Their findings state purposeful play comes with thoughtful planning by teachers. Play-based educational learning is vastly reliant on how intentional the teacher creates their planning, includes how they are setting up the classroom environment, and the materials within the classroom (Allee-Herndon and Roberts, 2021).

Allee and Roberts (2021) focused on a kindergarten and preschool classroom. They found the amount of intentional, instructional, purposeful play decreased in the kindergarten room compared to the preschool classroom they observed. According to Allee-Herndon and Roberts (2021), a quality preschool that includes purposeful play can provide enhanced language, literacy, and mathematics skills as well as improved responses to learning in kindergarten.

When comparing two intervention groups a preschool play-based learning group and a preschool training program group, Vogt et al. (2018) found that the play-based group demonstrated a higher success rate than the group with the controlled training program. This mixed-method study was conducted over an eight-to-ten-week period. Each group was given pre and post math assessments. Not only did the study show the scores were higher for the play-based group, but students' attention span was at a higher rate as well.

Playing with digital technologies can have a range of positive effects on children's knowledge, creativity, and skills. Miller (2018) created a study that measured the impact of interactive technology with number sense enhancement in a play-based classroom using mathematical apps delivered to kindergarten students using iPads. This study was given to a kindergarten classroom with students ages five to age six over a two-week intervention period. The study used interactive technology in a play-based classroom in place of the teacher's originally play-based lessons. Ten applications were used at the beginning growing to fifteen by

the end of the study. Small gains were made in the intervention group versus the control group, but they were not significant. Children were observed collaborating while working only during the times that they needed help and attention spans were an issue when the applications were too difficult to complete. Many children lost interest in the games and wanted to play with the toys the teacher had in the classroom. Several children were found not to have completed each of the levels of applications as well.

Play-based learning can be a teaching tool where special needs students can also gain skills and knowledge through play opportunities. Parsons (2019) discussed an inclusive classroom setting in which children with and without special needs learned how to interact with each other. This study focused on the social-emotional academic attainment skills of children with autism while learning alongside their typically developing peers. Parson (2019) mentions that during play with their peers and therapist, the children were allowed to practice integrating the communicative, social, and emotional characteristics. Children were able to proclaim new language skills in their social environment as well. This intervention model gave children time to learn peer-mediated skills by interacting with each other through play. The approach Parson observed was more peer-directed than teacher-mediated, though many researchers suggest these skills need to be explicitly taught.

Parker et al. (2022) state that play-based learning needs five factors to be successful. Learning through play has a place at school; playful education can be highly beneficial to all children; effectiveness is reinforced by key enabling factors; quality and effective play-based learning combine acceleration types; and lastly, agencies are crucial to play in education (meaning an environment that incorporates play-based learning is important to its success). The research also identifies four key factors that challenge the benefit of play-based learning: lack of

continuity between preschool and school education, lack of clarity of the definition and role of learning through play at school, lack of consensus about the intended outcome of education, and the division between the policy environment and the communities of implementation. The investigation states that as educators it is fundamental for us to battle these challenges each day.

Play-based studies have also been explored in the Title I program as well as other areas of a school environment. In their research, Allee et al. (2022) involved two different Title I classrooms: one play-based classroom with 11 kindergarten students and another non-play-based classroom with 19 kindergarten students. Both classrooms followed the district's testing calendar, engaged in direct and small group instruction, and planned instruction to state and district standards. The play-based classroom was given directions to use board games and other play-based activities to work on their language skills. The non-play-based classroom was given a rigorous curriculum using Pea Body Picture Vocab (fourth edition) to learn literacy and language skills. The findings of this study support using more play-based learning compared to a rigorous program.

Purposeful Planning

MacDonald (2018) observed the incorporation of play-based learning in a kindergarten classroom. MacDonald (2018) observed the teacher going through the process and meeting the needs of her students. MacDonald noted the teacher continually asking reflection questions at the end of her day. The teacher wondered what the children gained in her lesson, if they were engaged, were all opportunities for learning taken care of, and was teaching intentional. MacDonald observed the teachers' students in child-directed and guided play. MacDonald (2018) watched the teacher observe, guide, and plan play experiences. MacDonald (2018) concluded that intentional teaching methods improve children's learning potential. Planning and preparing

for these sessions create a positive learning experience that boosts children's thinking skills and impacts the development of their social, emotional, cognitive, physical, language, and literacy growth.

Planning play into an early childhood curriculum brings joy, engagement, creativeness, and collaboration to the classroom (Macdonald, 2018). With this purposeful planning, a teacher can incorporate the learning of several subjects or skills at a time. Purposeful planning can also target skills individually or take a combined studies approach using qualitative and quantitative data intake (Macdonald, 2018). Using the purposeful planning approach blends traditional subjects into one all-inclusive learning experience (in contrast to focusing on teacher-directed instruction geared toward sections of a standardized test). Play has a positive impact on the development of social-emotional development. Mohamed (2019) discusses the importance of social-emotional learning and how children can develop these skills. Children develop social-emotional skills through interactions with caring and skillful peers. Social-emotional skills are needed for children to be successful within the school setting. Children with good social-emotional skills are found to be more ready to enter preschool and kindergarten compared to children who have low social skills (Mohamed, 2019).

It is important to attempt to provide an engaging environment where play is the noticeable support for and means of learning. Macdonald (2018) found it challenging to provide an appealing setting. Macdonald conducted research that used the opposite approach full of worksheets and drills because it was "expected." The findings showed that small amounts of direct instruction were useful but noticed that play-based learning is essential for young learners. Macdonald (2018) noticed that play resulted in knowledge building, problem-solving, communicating, and collaborating. Throughout her career Macdonald experienced conflicting

thoughts as the early childhood world pushed her towards drills and worksheets. As a result of her research, Macdonald (2018) encourages educators to strive for an environment with intention, one that strives away from teacher-directed lessons, offering lessons appropriate to the child's development. Macdonald (2018) calls on teachers to be observers and active participants in children's play. When the play environment is purposefully created, the learning occurring is as thoughtful and consistent as any teacher-directed lesson, yet the activities are offered in a way that is appropriate to the development of each child (Macdonald, 2018).

Play reflects essential values of early childhood practices. Feeney and Freeman (2018) present a framework as well as helpful examples and questions to clarify key points about ethical conduct and to stimulate reflection and discussion on the critical issues that confront early childhood education. They state that developmentally appropriate practices (DAP), along with The Code of Ethics, provide guidelines for professional conduct and commitment to high-quality education for all students. Developmentally appropriate practices include supplying the required education to all students to learn. Through following the code and developmentally appropriate practices, educators are better prepared to maintain high standards of ethical behavior and make fair, moral decisions, as well as more intentional work choices. Play-based learning is one of those developmentally appropriate and ethical decisions for early childhood education students. Feeney and Freeman's (2018) research helps educators better understand that intentional teaching is important in play-based learning.

School Profile

Mt. Pleasant Community School District, located in Mt. Pleasant, IA, operates seven schools. According to the 2023 census, the city population is almost 8,936 residents and is in the southeastern part of Iowa (World Population Review, 2023). The district operates one 9-12th-

grade high school, one 10-12th-grade alternative school named Wisdom Quest, one 6-8th-grade middle school, and four K-5th-grade elementary schools, with one of them serving four preschool classrooms. Mount Pleasant Community School District believes in a “safe, protected, and nurturing environment where all members of the learning community demonstrate respect, compassion, and acceptance “(Mount Pleasant Community School District, 2023).

Student and Community Characteristics

Mount Pleasant Iowa School District serves about 2,050 students. According to the Iowa School Performance Profile, Mount Pleasant Community School District consists of 77% white, 2.8% African American, 3.8% Asian, 11% Hispanic/Latino, and .2% American Indian or Alaskan Native. Van Allen Elementary serves 350 of these students. Van Allen student subgroups consist of 72.4% white, 0% Native Americans, 3.1% African American, 2.8% Asian, 14.2% Hispanic, and 7.5% Multi-racial. There is almost a 50% to 50% male and female population. Students with disabilities served with an IEP in 2021 are 17.7%. English language learners consist of 5.9% of Van Allen’s student population. Students with low socio-economic status are around 67%, with 72% qualifying for free and reduced lunch. (World Population Review, 2023). The student/teacher ratio is 14:1 (Public School Review, 2022). As part of the Mount Pleasant Community School District, Van Allen uses technology to improve student learning. The whole school district is one-to-one with iPads or student laptops. Each student is given opportunities to use technology to enhance their education, no matter the grade.

Parent Involvement

As one of the biggest elementaries in Mount Pleasant, Van Allen hosts many fundraisers and school functions for families. Attending school functions is one way for parents to support their children’s education. Van Allen has engaged parents who volunteer for many activities

throughout the school year. Another popular function that Van Allen hosts is called Kids Christmas. The community and many teachers donate items for students to inexpensively purchase for their families for Christmas. Teachers also volunteer their time to help wrap the gifts with which students will surprise their families. It takes parent participation to set up and run this popular event.

School Mission and Vision

The Mount Pleasant Community School District believes in helping students succeed by giving them proper support; “The mission of the Mount Pleasant Community School District is to empower students to achieve without limits” (Mount Pleasant Community School District, 2023). The vision of Mount Pleasant Community School District is to “create an environment dedicated to empower all student to achieve individual excellence” (Mount Pleasant Community School District, 2023). Van Allen prides itself on making staff and students feel appreciated. Principal Katie Sands at Van Allen Elementary wants others to know that at Van Allen they take pride in everyone’s success and use every opportunity as a teachable moment . . . every achievement is worth acknowledging (Sands, 2023). One way Van Allen supports its teachers is through instructional coaches. All teachers are required to meet with the instructional coach individually at least twice a year, but the instructional coach is available as needed for all educators.

Student Learning Goals

Van Allen Elementary’s learning goal is for each student to show growth towards mastering the Iowa Early Learning Standards in the preschool classroom and the Common Core State Standards in the other grades. The Mount Pleasant Community School District has adopted standards-based grading. Educators expect their students show growth on the report card.

Teachers communicate learning goals through parent-teacher conferences, phone calls, and letters home.

Assessment at the Mount Pleasant Community School District Preschool Program looks different when compared to kindergarten. Students in the three- and four-year-old preschool are assessed using Teaching Strategies GOLD; this assessment is completed three times a year using anecdotal records. Students in the four-year-old preschool program are assessed using IGDIs (Individual Growth and Development Indicators) and Teaching Strategies GOLD. In addition to these assessments, students at the Little Panther Preschool Program are given a screener three times a year called a basic standard preschool assessment. From there, modifications are made to instructional practices to best meet the needs of students. Van Allen uses a variety of curriculum that is consistent with the rest of the school district. The literacy curriculum is Core Knowledge Language Arts (CKLA). Students in preschool through fifth grade use this program with fidelity. The program bases itself on the science of reading. CKLA “combines a multi-sensory approach to phonics with rich texts carefully sequenced to build content knowledge” (Amplify Education Inc., 2022).

The social-emotional learning curriculum used in grades preschool through fifth is Sanford Harmony. This program uses stories, games, and videos to help students develop social-emotional skills. Some topics covered include communication, diversity, empathy, critical thinking, problem-solving, and peer relationships.

Mount Pleasant Community School District offers many opportunities for professional development for its staff. The school focuses on engaging in professional growth. Each month, educators have one to two full professional development days to continue working on the big “rocks” of the district. These rocks consist of social-emotional learning, standards-based grading,

and gradual release of responsibility. In addition, educators work in professional learning community teams' multiple times a month to promote consistency through the school district. Through the school year, staff participates in countless book studies to help understand and learn new material. These book studies are one way for staff members to continue to be lifelong learners. Educators from this school district also complete personalized learning plans. Educators choose something they want to work on during the year and work with a group of individuals to achieve their learning plan. Personalized learning plans help teachers continue growing and learning in an area that interests them.

The preschool classroom at Van Allen Elementary is divided up into different centers: dramatic play, science center, water table, reading area/library, block center with other toys, and an art area. Teachers encourage the kids to play, facilitating social skills along the way. Preschool teachers at the Van Allen Elementary state, "Even though it seems like they are just playing, they are learning important skills, including essential social skills and cooperation with others, math, literacy skills, and learning new vocabulary with labels in their environment." In these classrooms the teachers usually are found leading the children in a more structured way, planning the activities, then guiding the children in doing them. This design is aimed at preparing kids for the kindergarten setting. For the most part, classroom time is devoted to learning letters and sounds, distinguishing shapes, and colors, telling time, and other skills. The students get 30-35 minutes of free play. This is the time they can play with activities that they have interest in. Kindergarten classrooms at the Van Allen Elementary are set up with an area for seated work, a library area, and circle time for morning meetings.

Needs Assessment

The Van Allen Elementary preschool and kindergarten classrooms have many positive attributes, but based on the school profile, an area needing improvement involves enhancing the curriculum and instruction. There is a lack of curriculum and instructional guidance provided to teachers. Although there have been program modifications and improvements in the last few years, the educational system at Van Allen Elementary continues to struggle with providing teachers with a clear guide for what is expected to be taught and how the instruction should be delivered. Instructional delivery varies from room to room in the preschool and kindergarten classrooms, with some teachers spending more time with play-based learning opportunities and others in more traditional teacher-directed lessons. Ideally, all teachers would teach in ways that support the Iowa Early Learning Standards. The Iowa Early Learning Standards focus on developmentally (age-level) appropriate processes, skills, content, and child outcomes. The purpose of the Iowa Early Learning Standards is to apply the standards with teaching and assessment strategies that are ethical and appropriate for young children ages birth to age five (Iowa Early Learning, 2022).

Ensuring our students are getting the very best education and learning in a developmentally appropriate way for early childhood students should be a priority for the district. A school-wide increase in time spent in play-based learning or child-initiated learning opportunities aligned with the early learning standards would bring more of our students closer to meeting the Iowa Early Learning Standards (IELS). According to the National Association for the Education of Young Children 2020 position statement, child-directed play is a developmentally appropriate practice (NAEYC, 2022). Child-directed play progresses when children can choose what to play with and make up their own rules for how to play. Pyle (2017) states that play-based learning has been described as a teaching approach involving playful,

child-directed elements along with some degree of adult guidance and scaffolded learning objectives (Pyle, 2017). Play-based learning is a system that uses play as a context for learning. When the children play, they use their imagination and problem-solve, skills that support their development. Play-based learning is child-initiated and teacher-supported. Although preschoolers at the Little Panthers Preschool Program receive, on average, 30 minutes daily in center time play, there is room for more. Kindergartens receive even less, approximately ten minutes on average, and there is room for more play-based opportunities.

To improve the curriculum and instruction at Van Allen Elementary preschool and kindergarten classrooms, providing more play-based learning within their daily schedules is essential. Facilitating a play-based curriculum would support data collection for the assessment tool used in our early childhood classrooms. The assessment tool is based solely on observations. Students in preschool are assessed in many different development areas using the Teaching Strategies GOLD assessment. Teaching Strategies GOLD is a valid, continuing observational system for assessing children from ages birth to kindergarten (Md-Yunus, 2014). It can help teachers observe children in a context throughout their everyday experiences in the classroom. This type of assessment is an effective way to learn what they know and can do. Increasing play-based learning opportunities could give teachers more time to individualize small-group instruction and center-time play. This could also give teachers more time to observe children engage and interact within their natural environment. The following plan will address the data and action plan to successfully implement a play-based learning plan to increase the time spent in play and child-initiated learning opportunities for preschoolers and kindergarteners at Van Allen Elementary.

Data & Analysis

According to the Early Childhood Environment Rating Scale (2023), children should receive up to 60 minutes of free play-based choice and 30 minutes of outside playtime. The Early Childhood Environment Rating Scale (ECERS) system is a tool that was designed to assess the quality of early childhood learning environments. The ECERS tool was created to provide classrooms with constructing a developmentally appropriate learning environment for children in preschool and kindergarten classrooms. Data was collected in May of 2023 from teachers at Van Elementary in the preschool and kindergarten classrooms. Each teacher was asked how many minutes of play-based learning opportunities the children got. Tables 1-5 shows the daily schedules of the three-year-old, four-year-old, and kindergarten classrooms. Tables 6-8 shows the time spent in play-based learning opportunities in the three-year-old, four-year-old, and kindergarten programs, along with the Early Childhood Environment Rating Scale (ECERS) recommended minutes.

Table 1.

Three-Year-Old Morning Class

8:10-8:15	Arrival Time
8:15-8:30	Carpet Time
8:30-8:40	Group Meeting Time
8:40-9:00	Small Group Time
9:00-9:20	Bathroom Visit/Wash Hands/Snack Time
9:20-9:30	Read-Aloud Listening and Learning Time
9:30-10:30	Choice Time
10:30-10:40	Closing/Review of Day
10:40-10:55	Outdoor Choice Time
11:00	Departure Time

Table 2.

Four-Year-Old Morning Class

8:10-8:15	Arrival Time
8:15-8:30	Carpet Time
8:30-8:45	Group Meeting Time
8:45-9:05	Small Group Time
9:05-9:25	Bathroom Visit/Wash Hands/Snack Time
9:25-9:45	Read-Aloud Listening and Learning Time
9:50-10:25	Choice Time
10:25-10:40	Clean-Up and Closing/Review of Day
10:40-10:55	Outdoor Choice Time
11:00	Departure Time

Table 3.

Three-Year-Old Afternoon Class

12:10-12:15	Arrival Time
12:30-12:45	Group Meeting Time
12:45-1:00	Small Group Time
1:00-1:15	Bathroom Visit/Wash Hands/Snack Time
1:15-1:30	Read-Aloud Listening and Learning Time
2:30-2:40	Clean-Up and Closing/Review of Day
2:40-2:55	Outdoor Choice Time
3:00	Departure Time

Table 4.

Four-Year-Old Afternoon Class

12:10-12:15	Arrival Time
12:45-1:05	Small Group Time
1:05-1:20	Bathroom Visit/Wash Hands/Snack Time
1:20-1:45	Read-Aloud Listening and Learning Time
1:45-2:30	Choice Time-
2:30-2:40	Clean-Up and Closing/Review of Day
2:40-2:55	Outdoor Choice Time
3:00	Departure Time

Table 5.

Kindergarten Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 - 8:15	Recess	Recess	Recess	Recess	Recess
8:25-8:45	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting
8:45-9:15	Intervention	Intervention	Intervention	Intervention	Intervention
9:15-10:10	CKLA Skills	CKLA Skills	CKLA Skills	CKLA Skills	CKLA Skills
10:10-11:10	CKLA Knowledge	CKLA Knowledge	CKLA Knowledge	CKLA Knowledge	CKLA Knowledge
11:10-11:35	Recess	Recess	Recess	Recess	Recess
11:35-12:00	Lunch	Lunch	Lunch	Lunch	Lunch
12:00-12:30	Social Studies	Social Studies	Social Studies	Social Studies	Social Studies
12:30-1:30	Math	Math	Math	Math	Art (12:25-1:00)
1:30-1:45	Recess	Recess	Recess		Math (1:00-1:45)
1:45-2:00	Catch-up time	Catch-up time	Catch-up time	Recess	Recess
2:00-2:30	Music	P.E.	Music	Math	Math
2:30-3:00	Math	Library	Math	P.E.	
3:07	Dismiss	Dismiss	Dismiss	Dismiss	Dismiss

Table 6.

3-Year-Old-Program (1/2 Day)	Time in Play	ECERS Recommended Minutes
A.M. Classroom 1	45 minutes	60-75 minutes
A.M. Classroom 2	45 minutes	60-75 minutes
A.M. Classroom 3	45 minutes	60-75 minutes
P.M. Classroom 4	55 minutes	60-75 minutes
P.M. Classroom 5	55 minutes	60-75 minutes
P.M. Classroom 6	55 minutes	60-75 minutes

Table 7.

4-Year-Old-Program (1/2 day)	Time in Play	ECERS Recommended Minutes
A.M. Classroom 1	30 minutes	60-75 minutes
A.M. Classroom 2	30 minutes	60-75 minutes
A.M. Classroom 3	45 minutes	60-75 minutes
P.M. Classroom 4	30 minutes	60-75 minutes
P.M. Classroom 5	30 minutes	60-75 minutes
P.M. Classroom 6	45 minutes	60-75 minutes

Table 8.

Kindergarten Classroom (Full Day)	Time in Play	ECERS Recommended Minutes
Classroom 1	10	60-90
Classroom 2	15-20 minutes	60-90

The existing schedules show that the preschool and kindergarten programs at Van Allen Elementary need more developmentally appropriate practice: the time allotted to PBL is considerably shorter than what is recommended for quality education.

The preschool and kindergarten teachers completed a Google form asking what they would do if extra time was in their daily schedule. The options in the Google form listed were Social Emotional Learning (SEL), Science, Math, Social Studies, Recess, Free Play, and Literacy. Results from the Google form are shown in the chart below under Figure One, titled Extra Time.

Figure 1.

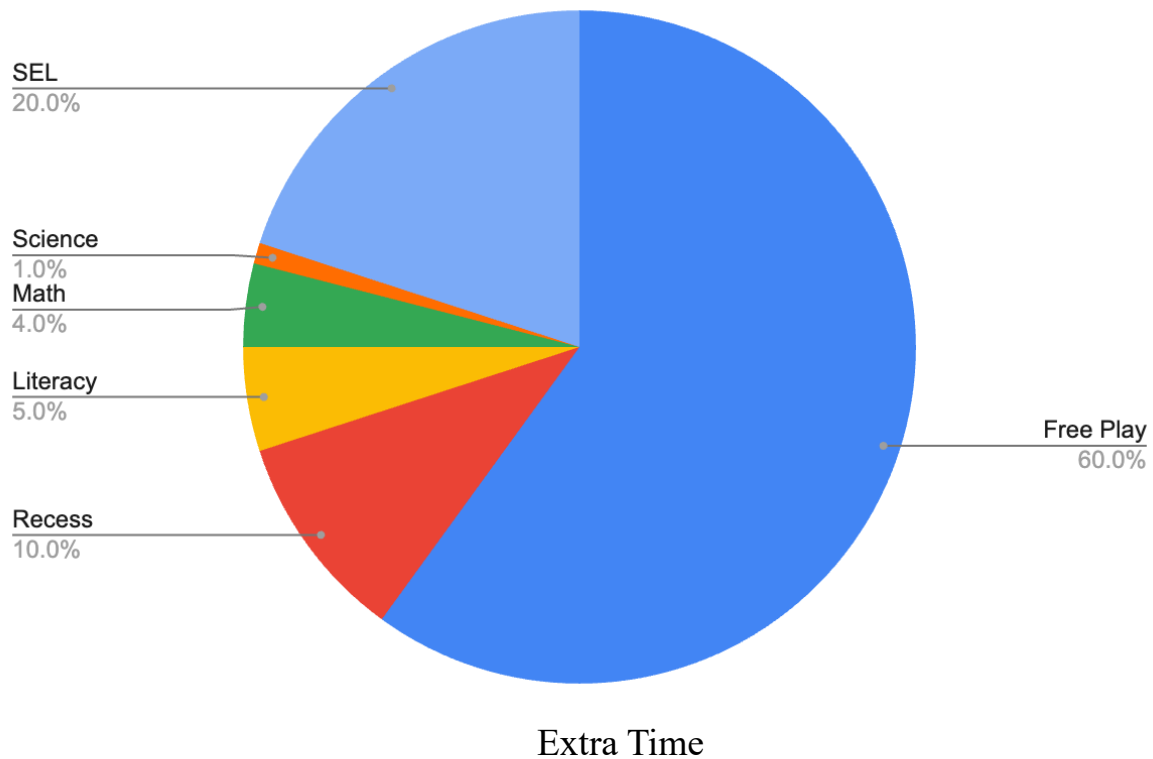


Figure one shows that preschool and kindergarten teachers at Van Allen Elementary School support increasing the amount of time spent in play-based learning opportunities.

Another survey was also provided to some of the administrators at Van Allen. When administrators were asked about increasing the amount of play-based learning experiences in the classrooms, the consensus was that the teachers could work on this within their team meetings or take the opportunity to apply it to their professional learning plan (PLP). A professional learning plan is a growth outline for teachers to work on their professional goals within their careers. One administrator recommended that the staff set a personal goal that they would like to improve their play-based learning time within their classroom. The two administrators given the form acknowledged the known benefits and would be willing to help as much as they could to support

their educators. This data also shows that Van Allen Elementary is willing to provide a quality education for its students. Teachers want more play-based learning opportunities, and the administration is eager to help.

Action Plan

All elementary schools need to create steps to ensure that play-based learning is implemented within the preschool and kindergarten settings. These steps will allow students, educators, and administrators to follow developmentally appropriate practices. Play-based learning has many research-based strategies for staff members to support students individually, as well as in small and whole groups. When implemented consistently, children within the Van Allen Elementary School will benefit from academic gains, including social-emotional growth.

Vaisarova (2022) found that using child-initiated learning activities or play-based learning has improved many parts of the child's overall development, including social-emotional development. Vaisarova (2022) also noted when play-based learning was increased motivation, self-confidence was enhanced, and the decrease in overall school anxiety. Rajapaksha (2016) also researched the impact of play-based learning practices within the classroom. Rajapaksha (2016) discovered that when children have opportunities to engage in play, they can develop oral language skills needed within the preschool and kindergarten setting. This research was instrumental in determining whether the Van Allen Elementary School preschool and kindergarten classrooms could benefit from additional time spent in play or play-based learning. Allee-Herndon (2021) also found that quality preschools, including purposeful play, can contribute dramatically to improved language, literacy, and mathematics competencies and improved responses to kindergarten learning. These research studies were significant in

determining whether this plan was needed and if action was necessary for the Van Allen Elementary preschool and kindergarten programs.

For play-based learning to succeed, teachers need to have opportunities to do observational assessments through Teaching Strategies GOLD. Teaching Strategies GOLD provides children an observational system for assessing children. Play can be easily observed through the Teaching Strategies GOLD tool. Children also need to be provided learning centers, use manipulatives and games, increase student and teacher-based play activities, and have a physical environment set up for play-based opportunities. Before implementing any action plan steps, staff and administration must be educated on the benefits of play-based learning.

Education is fundamental in advance more play-based learning opportunities for Van Allen Elementary preschool and kindergarten classrooms. Administration, parents, and educators must understand what skills can be taught through play-based learning and how they impact a child's development. This information can be presented to teachers, administration, and parents through a presentation during professional development, conferences, emails, and daily communication.

One step in the action plan is teachers using the Teaching Strategies GOLD tool to aid their students' developmental experiences. Teaching Strategies GOLD is a tool that uses daily observations to document their students' academic and social development. Teaching Strategies GOLD helps teachers observe children in the context of everyday experiences, which is an effective way to learn what they know and what they can do. The Teaching Strategies GOLD tool is beneficial because it can help create a more engaging learning environment. It also provides ample opportunities for teachers to see their students interact with their environment through play.

Another step for teachers is providing their students play opportunities. Play opportunities involve the teacher choosing materials, reinforcing concepts, modeling, and encouraging exploration. Teachers can ask questions to encourage students to think more about concepts. Teachers need to remember to have the child take the lead, finding the balance between leading and learning. For the students to succeed with this action step, staff members must keep up to date with ongoing training and ways to incorporate curriculum with play.

Another step in this action plan is providing students with manipulatives and games. Young learners are tangible learners who learn by doing. In addition to using pencils and paper, teachers should use manipulatives. Some ideas include providing students with toy cars to count or work on language concepts, slinkies to stretch out new sounds, Legos and playdough for fine motor, and art for several other learning opportunities. Not only do these hands-on materials mentioned work on academic concepts, but they can also help children with social-emotional skills. Hands on materials can aid with children's development by encouraging them to express feelings, work on problem-solving skills, and explore their imagination. Games are another fun way to practice and review concepts. Games do not have to be complex or competitive. Students love guessing games and can learn from them as well. These games include eye spy, board games, hide and seek, and puzzles.

A third step in this action plan is increasing student and teacher play-based opportunities. Learning through play can occur anywhere, inside and outside the classroom. Many concepts traditionally taught with a teacher-led activity can be learned or practiced through play. Teachers must look at their schedules and try to fit those play opportunities into their day. Teachers can give children hands-on practice with the concept through free, unstructured play. Lessons can be

acted out during stories, children can go on adventures with the lessons using props or toys, and children can even take learning outside.

Lastly, creating an appropriate play-based environment is essential for the success of play-based learning opportunities. Teachers should aim for a well-organized classroom or other play environments that make their students comfortable. Creating learning centers is a popular way to organize the physical environment in early childhood education. Common learning centers include dramatic play, building, literacy, writing, art, math, sensory, and science. Materials for each learning type go into those areas so kids have a specific place to explore. During free play time, the kids can move between the centers to engage in play-based learning on their terms. A teacher must consider the physical arrangement and make play accessible for all students. Fill each play area with exciting objects and rotate toys to keep students engaged.

Improvement Plan

Effectively implementing the action plan to improve play-based learning in the preschool and kindergarten classrooms at Van Allen Elementary is crucial to the success of the classrooms. A timeline must be created and followed to keep the action plan on track. To begin the process, the author will lead professional development session at the beginning of the school year at Van Allen Elementary, followed by a refresher at the beginning of the second semester, and ending with a gallery walk showing the growth of play-based learning within their classrooms. During these sessions, staff members will discuss the benefits of play-based learning, review Teaching Strategies GOLD assessments and documentation, share ideas on play incorporation with the mandated curriculum, and share with coworker's classroom environment structures that benefit play-based learning. Table 9 below outlines a professional development (PD) timeline for preschool and kindergarten staff. During these PD sessions, Area Education Association (AEA)

Early Childhood team will facilitate sessions and work with the preschool and kindergarten teachers.

Table 9.

Date	Time	Details	Pre & Kindergarten
August 15 Beginning of the year	8:00-12:00	New Teacher/Coaches TQ Day at MS - general supports as needed provided by coaches	At middle school
	12:00-1:00	Lunch on your own	
	1:00-4:00	AEA Early Childhood Training/Play-Based Learning, what does it look like?	
August 16	8:00-12:00	Donuts and Coffee/Introductions of all staff. Directors of the community discuss goals with staff	At high-school library
	12:00-1:00	Lunch on own	
	1:00-4:00	AEA Early Childhood/Teaching Strategies GOLD The ins and outs, what is it all about? Curriculum outline/Standards alignment with CKLA	
August 17	8:00-12:00	Welcome Back from Superintendent	At Van Allen
	12:00-1:00	Lunch on own	
	1:00-4:00	How to connect your curriculum with play-based learning	
August 18 th	8:00-12:00	AEA Early Childhood What does a PBL environment look like? What is a home visit?	At Van Allen
	12:00-1:00	Lunch on own	
	1:00-4:00	Start your home visits.	
August 21	12:00-1:00	Finish Home Visits and Work in Room Lunch provided by building principal	At Van Allen
January 12 th 2 nd Semester	8:00-12:00	AEA EC Staff: Look at TS GOLD Data	At Van Allen
	12:00-1:00	Lunch on own	
	1:00-4:00	Share out PBL and curriculum ideas. How is it going?	
January 15 th	8:00-12:00	AEA EC Staff: Go over what a gallery walk is	At Van Allen
	12:00-1:00	Lunch on own	
	1:00-4:00	Prepare for Conferences	

May 30 th	8:00-12:00	Gallery Walk with district	At Van Allen
End of the Year	12:00-1:00	Lunch provided by PTO	
Gallery Walk	1:00-4:00	Work in rooms	

Teachers will begin the year with a plan for implementing more play-based opportunities. Teachers will use Teaching Strategies GOLD checkpoint data yearly to oversee student growth. Teachers will have monthly check-ins with their administration, coaches, Early Childhood AEA staff, and preschool and kindergarten collaboration teams. During these meetings, teachers will discuss student progress, share ideas, and review any questions or concerns about play-based learning. During each meeting, teachers will add a new idea or play concept that they found helpful during one of their academic lessons. Before each meeting, teachers will add and review their ideas to a Google doc; see the sample below.

Play-based Google Doc	
Preschool Ideas	Kindergarten Ideas
Dressing up and role-playing nursery rhymes	Using a slinkie to work on new sounds, words, and sight words.
CKLA has stroke books for students to use and we have decided this year to jazz it up by adding sparkle and using shaving cream, salt trays, playdough, bubbles to work on the skills from the books for the students instead of just giving them the worksheet to trace with their finger.	Swat: This strategy can be used with a variety of skills (letter names, sounds, numbers, math facts, vocabulary, etc.) and I find it works best in a small group. In the center of the circle, lay out cards for the specific skill you want to review. Each student needs a fly swatter. The teacher names or describes something on one of the cards. The first student to swat the correct card gets to keep the card. When all cards are gone, I like to have students turn to a partner and review the cards they each have.

This school improvement plan aims to increase the amount of time children spend in play-based learning in Van Allen Elementary School, specifically in the preschool setting, from approximately 25% to 55% and in the kindergarten classroom from approximately 10% to 25%. Gradually, the amount of play-based learning opportunities will increase from 30 minutes daily to 60 minutes in each of the four-year-old preschool classrooms. Kindergarten classrooms will increase their play-based learning opportunities from 10-15 minutes to 20-25 minutes daily. Teachers will work on this goal by learning new play-based strategies, applying the Teaching Strategies GOLD assessment in their classroom, using manipulatives and games, finding more play opportunities, and coordinating their classroom environment to fit play-based learning.

Some barriers or challenges that hinder the success of this plan are pushback from veteran teachers who are more comfortable doing things the same way they have always done them and are resistant to change. Other challenges may be parents needing to understand the benefits of play-based learning fully. Another challenge that could impede this plan is teachers needing to keep consistent schedules and use the time to apply play opportunities with their day.

Conclusion

The success of this school improvement plan is possible if this plan is implemented as directed. Van Allen Elementary preschool and kindergarten classrooms need extended time for play-based learning opportunities. Increasing the amount of play-based learning opportunities in the classrooms will benefit both the teachers and the students. Research supports and validates play-as-learning; there are many examples of where learning was transformed by experiences in which children engage in meaning-making processes (Nilsson, Ferholt, & Lecusay, 2018). Rather than feeling weighed down by the pressure to ensure students reach academic milestones before continuing to the following grade, early childhood educators should be empowered to

bridge the gap between play and learning (Pyle et al., 2018). Instead of focusing on instructive adult-child interactions, preschool and kindergarten classrooms should be focus on play and exploration (Nilsson, Ferholdt, & Lecusay, 2018). Creating play-based learning experiences in a classroom will allow children to build their language skills, work on social interactions, cognitive skills, and apply social emotional activities with meaningful connections with their peers. For these reasons preschool and kindergarten classrooms should implement more play-based learning as a part of their daily routines to help students achieve social, emotional, and academic growth. This school improvement plan will benefit students at Van Allen Elementary by applying developmentally appropriate practices into their curriculum and give them more play opportunities throughout the day.

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