

12-2021

## A Fundamental Part of Learning: Employing Play-Based Learning in Marin County, CA Kindergartens

Spencer Gapinski  
*Dominican University of California*

<https://doi.org/10.33015/dominican.edu/2021.LCS.ST.02>

**Survey: Let us know how this paper benefits you.**

---

### Recommended Citation

Gapinski, Spencer, "A Fundamental Part of Learning: Employing Play-Based Learning in Marin County, CA Kindergartens" (2021). *Literary and Intercultural Studies | Senior Theses*. 5. <https://doi.org/10.33015/dominican.edu/2021.LCS.ST.02>

This Senior Thesis is brought to you for free and open access by the Liberal Arts and Education | Undergraduate Student Scholarship at Dominican Scholar. It has been accepted for inclusion in Literary and Intercultural Studies | Senior Theses by an authorized administrator of Dominican Scholar. For more information, please contact [michael.pujals@dominican.edu](mailto:michael.pujals@dominican.edu).

A Fundamental Part of Learning:  
Employing Play-Based Learning in Marin County, CA  
Kindergartens

Spencer L. Gapinski

A culminating capstone project submitted to the faculty of Dominican University of California in partial fulfillment of the requirements for the degree of Bachelor of Arts in

Literary and Cultural Studies

Dominican University of California

San Rafael, CA

December 2021

Copyright © Spencer Gapinski 2021. All rights reserved.

## Abstract

Play occupies a fundamental part of learning as a human being yet is often not used in an educational setting. Public Schools across California have increased the academic demand of students as early as Kindergarten with the intent to increase learning. While academic learning has seen moderate increases in past decades, the result has seen a decrease in play in the classroom. This essay assesses the benefits of using a Play-Based Learning method as well as describes the next steps needed to incorporate Play-Based Learning into Marin County Kindergarten classrooms.

## Table of Contents

<b>Abstract .....</b>	<b>iii</b>
<b>Foreword.....</b>	<b>1</b>
<b>References.....</b>	<b>20</b>
<b>Appendix A: Modifying Current Kindergarten Lessons into PBL Lessons.....</b>	<b>21</b>
<b>Appendix B: Integration of UDL into PBL .....</b>	<b>27</b>
<b>Appendix C: Defining the Continuum of Play-Based Learning.....</b>	<b>29</b>

## Foreword

Play occupies a special role in my life. For as long as I can remember I was the quiet kid in every class. Speaking up or causing a stir of any kind has always paralyzed me with anxiety, something I still struggle with to this day. The only exception to this came when I was playing outside. Feeling the air hit my face as I ran freed me from any self-conscious feelings. Play provided me a safe place to be myself in a way that the rest of my life did not, especially in school. I learned how to interact with friends and how to disagree with those I had never met. I learned to get into the mind of another, trying to outsmart their strategy or to put myself in another's shoes trying to empathize. Play has always provided me with a means of expression that feels the truest to me.

Marin County is where I was born, went to school, and part of who I am. I attended five different public schools, played High School basketball, and worked my first jobs in Marin. In my work at the Marin YMCA, I worked at all eight after school childcare sites from Novato to Fairfax. I have worked in the classrooms of multiple Marin County schools as a one-on-one aide where I had a front row seat to the modern public education of Marin. I have a pride and understanding of Marin County that runs deep within my identity that has inspired me to make a goal of becoming a public-school teacher in Marin. Yet by living here my whole life, I have also had a front row seat to what the public education system lacks. As a student, I found myself lost in the system, well behaved enough not to draw extra attention, but far too shy to reach out for help when I needed it. My teachers enjoyed having me in class, but they rarely were able to inspire me for me to put in the work they desired. Teachers often asked me to add more detail to my writing or show

extra steps in Math that I felt were not needed. I felt I could express my knowledge through hands-on demonstration. I was bored and unengaged in school.

By the time I reached middle school, my disinterest caught up to me and my grades reflected as much. I was not motivated by my teachers and had no reason to engage beyond the requirements of playing on high school sports teams. In my freshman year of high school, I met with a guidance counselor who looked at the grades I achieved in middle school and immediately concluded that I make plans for community college. I was the student who was left behind due to the archaic teaching styles of the past that emphasize the teacher as the focal point of class. The monotony of worksheets and repeated tasks dissuades students like me from engaging in learning. I craved variety and play. I yearned to go outside and apply new concepts with my natural curiosity, and I was not alone. Many students just like me fall behind and become disengaged with school, starting from the earliest grades.

It is mainly this frustration with the education system that has brought me to my second bout with college so that I may one day become an elementary school teacher. I made the decision to go back to school after completing a degree in sound engineering because I found that the work life of those who are in that business sacrifice their mental and physical health in exchange for money. It was while I was finishing my degree in sound arts that I began first working at the YMCA spending afternoons playing all sorts of games with the students. I always felt a sense of fulfillment after working with youth that I did not feel working late nights in front of a computer. After ten years at the YMCA in different capacities, I decided to go back to school.

Fast forward to my senior thesis research, I found myself gravitating to the subject of Play Based Learning (PBL). The idea of play and academics working together in concert is what I picture when I imagine a successful future classroom of my own. I crave to find the sweet spot between my days full of play at the YMCA and the academic requirements that dictate schooling across California. I want my classroom to see a child who reads above grade level and excels in Math and Writing as equal to a child who has a knack for making great friendships and including others. I firmly believe that the social-emotional side of learning is as important, if not more important, than learning the academic skills that many classrooms focus on. If schools strictly focus on benchmarks that are measured by testing and assessments in a few subjects, then we risk missing the brilliance of what all students have to offer. Albert Einstein's genius captured this idea best when he said, "Everybody is a genius, but if we judge a fish by its ability to climb a tree, it will live its whole life thinking that it is stupid."

Kindergarten serves as the jumping off point for kids learning to be students. Kindergarteners are not only being asked to learn academics to use in the following grades, but they are also being asked to work in a classroom environment, some for the first time. This unique environment is one of the main reasons to focus on the kindergarten grade for PBL. Focusing on kindergarten provides the most comprehensive and supported age range for a fully PBL approach. It is far more reasonable to ask a five-year-old child, filled with curiosity and energy, to explore through a hands-on approach during play than it is to ask that same child to sit still on a carpet for a lesson. Kindergarteners respond to opportunities to learn through experience which play naturally provides.

Kindergarten has changed its scope over the last few decades from classrooms that made play a priority to classrooms that have transitioned to an academic focus. Schools have honed their focus on academic skills consequently leaving behind skills that teach the social-emotional growth that is arguably more important. Consequently, students have lost their motivation and curiosity that is essential for life-long learning. Rather than focus on the benchmark of reading by the end of first grade, schools should take aim at sparking curiosity in students and providing rich texts around their environment to inspire the *desire* to read.

Play is an abstract concept in many ways. Play provides an environment for learning that does not punish mistakes but expects them. For many, play is something reserved strictly for children and is something to grow out of when one becomes an adult. However, this definition is far too narrow. Definitions of play span from an activity involving sport to any spontaneous activity involving fun. For this paper as well as the pedagogy of PBL, play will be defined by the continuum of play as defined by Angela Pyle and Erica Danniels (2017) in their research article titled, "A Continuum of Play-Based Pedagogy: The Role of the Teacher in PBL and the Fear of Hijacking Play." This paper defines play in terms of this continuum with play varying by the level of involvement of educators. On one end of the spectrum, educators are observers in play and take little to no part while on the other end, educators are the leaders in a play activity. Pyle and Danniels break the continuum into five distinct types of play: Free Play, Inquiry Play, Collaborative Play, Playful Learning, and Learning Through Games. It is fundamental to the understanding of PBL to understand these definitions. Using the continuum of play provides a framework for all types of academic activities to incorporate play.

## A Fundamental Part of Learning:

### Employing Play-Based Learning in Marin County, CA Kindergartens

**February 2016, 7am, Marin County, CA:**

The YMCA had just opened minutes ago and was empty except for two excited boys, deep in excited conversation, talking about what they had seen the previous night on TV.

One of the boys, Easton, asked, "Is the Republican primary like primary colors or something?"

"Not exactly," I replied. "It is kind of like the try-outs for the Republican presidential nominee,"

Surprised by the fact that two 3rd graders were curious about national politics, I asked, "Where did you hear about all that?"

"I saw the debate last night," Easton explained.

The boys continued to interrogate until one of them thought of an idea. Mick, the other boy, asked, "Can we make our own video of the news?" The YMCA childcare was lucky enough to have a few iPads which the kids could create their own short movies during Free Play. With the approval of the YMCA staff, the morning transformed into an impromptu Play-Based lesson in which the boys would practice skills they thought were only learned in a traditional classroom. A question about how they will remember what to say leads to a conversation about cue cards and an activity in which the boys write out their script in big block letters. The boys had no idea that while they were writing their cue cards, they were practicing spelling, grammar, and penmanship. The boys were

perfecting fine motor skills and thinking critically about how large the font on a cue card needs to be so it can be read from afar. By sitting in front of the camera, role playing a news anchor, they were using linguistic skills that would excite the school speech therapist who both boys saw weekly. Both boys were learning through play well before the bell rang or the start of school.

Play serves as our inquiry of the world. Play provides a safe space for success and failure-two essential ingredients in learning. It would stand to reason that if play serves as the natural way in which humans learn, then school would serve as a place where play is perfected. The harsh truth is that with the rise of academic standards and increasing focus on test scores, schools have squeezed play out of the classroom, leaving the social-emotional development of students lacking. Marin County Schools have followed this trend with the belief that the increased academic load will provide better learning. Although the motivation for this change is well intentioned, the decrease of play leaves students without valuable social skills and does not in-fact benefit the student's cognitive abilities. On the contrary, PBL has shown to achieve academic goals while providing an opportunity for young students to grow in their social-emotional learning. This paper will demonstrate how PBL teaches academic skills in the most age-appropriate pedagogy, gives students the chance to learn valuable social-emotional skills to best apply their knowledge, and allows Marin Kindergarten teachers to best teach to the standards for teaching set by the state of California. Although community pressure to focus on academics is great, a PBL approach offers the most child-centered, developmentally appropriate, and effective learning style for Marin's Kindergarten students. PBL is not a stark reimagining of what a Kindergarten classroom looks like but

uses the natural human practice of play as a foundation to build learning. In a classroom in which academic skills are taught without the practice of their real-world application, students are set up for failure.

Marin County, CA is unique to the Bay Area in several ways. It is home to one of the most affluent counties in the United States. The most recent U.S. Census (2020) data has the median household income of Marin as almost double the national average. Marin is predominantly white, and its public schools operate with resources that many private schools would be envious of. There is no lack of academic success in Marin. On the contrary, according to Ed-Data (2019) students routinely achieve higher on standardized tests than the state average. As Marin is one of the least diverse counties in the United States with 85% of its residents being white, Marin Kindergarten students should begin their first year of school with an emphasis on social-emotional learning by using Play-Based Learning. By focusing on this emotional growth, Marin sets up its students best for a diverse modern world.

Marin students routinely express the amount of stress and anxiety that a high academic workload brings them as early as Middle school and for some even before. Many of the high achieving students experience burn-out and lose focus on what the purpose of learning is. Students obsess over test scores and report cards. To reduce this stress, Larkspur Corte Madera School District located in southern Marin, changed to Standards-Based Reporting attempting to remove the stigma and pressure of traditional grading ([lcmsschools.org](http://lcmsschools.org)). On the other hand, students who do not fall into the category of high achievers often disengage from school due to the competitive nature that rigorous academics reinforce. Students are left feeling that there is no point to learning. It is within

this context that one must look at how Kindergarten is taught in Marin County. What is being taught in Marin's earliest grade and, more importantly, what is not?

The pedagogy of each Marin County Kindergarten teacher is not available to the public; therefore, one must first look to the standards that are in place for Marin Kindergarten teachers set by the state. The Common Core Standards, adopted by the California Department of Education (CDE), are the "what" Marin and California teachers must teach to their students. The Teaching Performance Expectations (TPEs) and California Standards for the Teaching Profession (CSTP) are the standards that speak to "how" teachers should instruct their students. These standards are central to every Kindergarten classroom in Marin County and California, yet none of them include language that acknowledges play. These standards are met with teachers relying on didactic teaching methods that use more worksheets with the belief that they best teach to these standards. A 2016 study assessing the increased focus in academics in Kindergarten across the United States found, "Daily use of textbooks in kindergarten more than doubled for both reading and math" (Bassok et al. p. 9). At the same time, playful learning such as dramatic play decreased by almost 30% from 1998 to 2010 (p. 9). Marin has followed this trend as reflected by speaking with current Marin County Kindergarten teachers. One Kindergarten teacher at a Marin County School describes play as, "Opportunities to promote social and emotional learning." The teacher goes on to describe how play teaches social-emotional growth but only in the beginning of the year, "We definitely use play as our primary focus of social studies early in the year," (Teacher 1, personal communication, September 3, 2021). As this teacher is correct that play can teach valuable social-emotional learning, they allude to the belief that play must be a

break from academic learning in this description. This Marin teacher is not alone in their view of play. Another Marin teacher expressed that they see play as something that their classroom will get to, "If there is time," (Teacher 2, personal communication, September 30, 2021). Both teachers do not speak ill of play but their descriptions of its use in the classroom speak to a narrow definition of play.

Play and academic learning are seen as dichotomous activities in the classroom. A prime example is the schedule for kindergarten classrooms. The typical school day begins with a morning meeting in which students are asked to sit patiently and quietly on the carpet while each student takes turns to share and check in. After the morning meeting, the teacher transitions into the first lesson of the day. Using a didactic teaching method, the teacher may explain a math concept followed by a worksheet. Students may be allowed to work in a small group or use blocks for their math, however it is made clear that play is not a part of the lesson. After the work is finished, students are allowed to play as a reward for their learning. The structure of the day follows the on/off switch between learning activities and play breaks. Not only is this schedule and view of play not the most effective for the students to learn the material needed, but it also further solidifies the idea that play is a break from learning. By defining play as the opposite of learning, schools are placing a stigma on play. Phrases such as, "Quit playing around," or, "Recess is over, it's time to get focused for learning," carry the subtext that play is not something that good students should be doing to learn. Further, students who enjoy being active and playing receive a message that what makes them curious and excited is not welcome in the classroom. Surely this is not the intention of educators in Marin, yet this is the reality for many of Marin County's youngest students. Nevertheless, with a reimagining of what play

is and how it can be used in the classroom, Marin can transition its Kindergarten to Play-Based Learning (PBL).

PBL has much to offer both academically and emotionally for students and teachers alike. As with any pedagogy, the intent is to best teach information and skills to students so that they may succeed in both the near and long term. Additionally, the skills learned in school are intended to be of use throughout a student's lifetime. When asking how and what schools should teach, it is helpful to think of what your day entails. How often do you find yourself thinking critically, compromising, negotiating? What are the skills necessary to succeed in our society and what are the best ways to teach them? Of course, subjects such as Reading, Math, and Writing all hold great importance to be successful yet they are not the only skills needed. Skills such as cooperation and self-regulation are just two examples of skills best learned through PBL. What's more, PBL has been seen to increase academic learning when applied to young students.

PBL is a pedagogy that teaches vital academic skills while also teaching the social-emotional skills that allow the academic tools to be used best. A prime example comes from a study conducted using at-risk preschool students who scored low in their vocabulary assessments. The study considered what effect play could have alongside a typical academic intervention strategy. The study followed the progress of two groups, one who used a standard intervention of didactic teaching methods (EIVP) while the other used the same intervention with the addition of play (EIVP + Play). According to Han et. al (2010) vocabulary for younger students can serve as a predictor of academic success in the future, "Researchers find that children who enter school with poor vocabularies often experience difficulties in learning to read," (Han et. al, 2010, p. 82). The results of

the study illustrate the efficacy of play as intervention. The group given EIVP + Play made strides beyond those with the typical tutoring strategy, “More than 60 percent of the children in the EIVP + Play intervention moved from being assessed as at-risk to scoring within age-level averages after just four months of intervention,” (Han, 2010, p. 99). Compare that to the standard group of intervention of which only 44 percent moved within age-level averages. Further, the researchers concluded that not only were the students who were given EIVP + Play back up to grade level standards after their intervention, they also “proved a more powerful intervention for growing an expressive vocabulary, a more challenging gain than receptive vocabulary,” (Han, 2010, p. 99). The students who were given play as a part of the intervention were more able to use this new language expressively. In short, the addition of play solidified learning by applying real world use of the vocabulary words in a way that the standard intervention practices do not. It certainly stands to reason as to why this intervention of play is such an effective teaching tool. Like anything humans learn, understanding a concept abstractly is helpful, but the ability to apply the concept is where the real learning takes place. Play serves as practice for the students in a way that meets each one at their level, a goal that is at the forefront of every public-school teacher in the state of California.

Applying learning in this real-world context is not only a best practice in the opinion of some, but also an integral part of the requirements for public school teachers in California. As previously mentioned in this paper, Marin teachers are required to teach to the TPEs and CSTPs, both of which contain language that speak to real life applications. Take the example of an expectation in the TPEs written for teaching Math. One of the listed goals for new teachers of Math is to “facilitate student understanding of

mathematical concepts and support students in making and testing conjectures and recognizing relationships within and among concepts” (CTC p. 17). In current classrooms this looks like a teacher asking the whole class to make a prediction regarding a mathematical concept or recognizing a pattern in a series of equations. Often students are called on while sitting on the carpet raising a quiet hand to share their prediction. As this activity certainly can be engaging and fulfills the requirements of the language used in the TPEs, it does not engage the students in the way PBL can.

Kindergarteners love to make predictions and it is not hard to imagine a Play-Based Lesson in which students are able to make mathematical predictions and test conjectures. PBL asks teachers to engage with students during play allowing the teacher to know the interests of their students. Perhaps a teacher has observed that their class loves a river-like drain area where water runs down a hill and children play during Free-Play. Kindergarteners intrinsically see this drain as an opportunity for play as it allows for creativity and application to the real world. A PBL lesson can use this fascination in the small river for a Collaborative play activity having students create boats to sail down the river. Students must be able to identify the shapes being used to create the boat, the amount of rock weights needed on the boat, and which boat was largest and smallest, all of which are Common Core Standards for Kindergarten. Students can predict which boat will get down the river fastest all while performing an activity that centers around play. In addition, students are concurrently learning valuable social-emotional learning while participating in this activity. The ability to self-regulate is vital in an activity filled with excitement and taking turns. Surely many students will want to be first when it comes time to choose supplies or float their boat down the river. PBL has been proven to teach self-

regulation. According to Elena Bodrova and Deborah J. Leong (2008), researchers in education and the effect of self-regulation claim, “This ability to both inhibit one behavior and engage in a particular behavior on demand is a skill used not just in social interactions (emotional self-regulation) but in thinking (cognitive self-regulation) as well” (p. 56). Bodrova and Leong (2008) go on to state that the best way to learn the ability of self-regulation is through forms of play in which children take part in the construction of rules, “Kindergartners learn self-regulation best through activities in which children—and not adults—set, negotiate, and follow the rules” (p. 58). The Collaborative-Directed Play-Based lesson using boats is a prime example of how PBL can incorporate the social-emotional growth while teaching the academic skills concurrently.

While it is important that educators teach to the expectations and frameworks set by the state of California, the greatest benefit of using PBL is the development of student’s social-emotional learning. Play is the fundamental place in which humans can try out different ways of being as well as better understand the ways that others are feeling. In a comparison between didactic teaching methods and child centered teaching, Stipek et. al (1995) hypothesized the consequences of didactic teaching methods, “It is conceivable that the greater dependency and anxiety and lower perceptions of competencies, expectations, and pride in accomplishment associated with didactic programs will, eventually, inhibit constructive learning behaviors and, therefore, learning” (p. 220). Classrooms in this study measured the social climate of the classroom as well as such metrics as perception of ability and expectation for success. While the comparison between didactic teaching methods and child-centered did not show a great discrepancy in academic learning, there was a noticeable difference in the social-emotional growth of

students in child-centered programs with their self-regulation and motivation to learn. It is worth quoting the analysis of this study at length:

Compared to children in didactic programs, children in child-centered programs rated their abilities higher, had higher expectations for success on school-like tasks, selected a more challenging math problem to do, showed less dependency on adults for permission and approval, evidenced more pride in their accomplishments, and claimed to worry less about school. (p. 220)

Self-confidence, high expectations in one's work, and independence are the skills that schools should want their students to walk away with. Academic skills are certainly of great importance; however, one can make a strong argument that self-confidence and lack of stress that is mentioned in the study are equally as important if not more so. Stress is ever present in our modern and fast paced society. It is well established that school can create stress yet in PBL students leave with the exact opposite result.

Current studies reflect this sentiment of the benefit of social emotional learning. A 2020 article states, "through interactions with peers, children also practice sharing and taking turns, which are important components of their social development" (Pyle et al., 2020, p. 56). These authors go on to state, "Moreover, pretend play supports children's development of self-regulation skills" (p. 56). The list of valuable skills learned does not end with sharing, cooperation, and self-regulation, but is merely just some of the skills learned. Learning skills to better interact with our fellow humans is the type of skill that must be at the forefront of Kindergarten in Marin. The change to PBL will certainly vary from one teacher to another but with the universal understanding of the tremendous benefits of PBL, Marin teachers will jump at the opportunity.

Transitioning to play is a process. As with any change in pedagogy there is bound to be resistance and rightfully so. Educators work incredibly hard to create the best results for their students. Teachers, parents, administrators, and community members all want students to walk away from their schooling experience with a sense of confidence and competence. With a new understanding of play there is great potential to fundamentally change how Kindergarten looks in Marin County.

The first step that is needed to change Kindergarten pedagogy in Marin is to embrace a different definition of play. Teachers, as well as all members of the school community, benefit from seeing play on a spectrum rather than embracing binary concepts of play. Educators must take on different roles in the classroom during play. During Free Play, educators take on an observational role in which they can notice areas of interest of students. Teachers must embrace the idea of structuring a lesson around play rather than including play if there is time. Marin teachers can look to schools that already practice PBL. Teachers in PBL classrooms in Hong Kong describe the role of a teacher as, “Teachers provide resources and create a playfulness environment for children, and they also scaffold children learning during play, they play a role to guide them rather than lead them to play” (Keung & Cheung, 2019, p. 634). As Marin teachers have described their role in play as one of an observer, insights like this help teachers understand the diverse role a teacher takes in PBL. It is important that Marin teachers can see the shift to taking a role of guidance rather than leadership as a new challenge and not a step back. Teachers have become accustomed to their role being a central part in the flow of each day. Often, when a substitute must take the teacher’s place, the day of learning is severely limited as the leader of the class is not there. With a role as guide,

the balance of power in the classroom is partially transferred to the students giving them agency in their own learning.

Certainly, one of the greatest challenges with a change of pedagogy is adjusting the many hours of planning that has gone into lessons. School districts spend large amounts of funding on resources for lessons and a change to PBL may seem like a new and flashy teaching resource. PBL simply is a philosophical reimagining of the lessons that are already in place. In speaking with current Marin County teachers, many of them described their lessons that involve elements of play but then emphasized that play was only a small part of the lesson. With a new perspective on what play is, teachers are empowered to see the lesson through the lens of play and not just a small part of that lesson. This is not to say that traditional teaching methods where a teacher occupies a didactic teaching role in front of the class are to be removed but must be used as a small part of the lesson, with the bulk of the lesson taking place through play.

Change on such a large scale is possible but needs a fundamental shift in the societal understanding of the value of play. Training for Marin teachers and administrators certainly can give some immediate tools to incorporate PBL into many more classrooms, but for PBL to thrive, the community must embrace the value of play. Play must be seen as the diverse and enriching activity that it truly can be and not as an activity to grow out of. Play is a necessary function of what it means to be human.

Children without the ability to play are at a deficit and Marin schools must intervene.

Although this paper focuses on Kindergarten specifically, the lessons that are taken away regarding PBL apply to all grades of education. Further research must be done as to the benefits of play given that play can take on many different forms and can

accommodate more advanced concepts. The structure that PBL provides can be applied to grades all the way through high school and would be very worth exploring.

There is no shortage of dedication or talented teachers in Marin County. In research for this paper, teachers and administrators emphasized the dedication and effort that goes into teaching all while teaching through a global pandemic. Play became a focus of discussion for many in education due to the lack of in-person learning. The scheduled times for play already in place that children play such as recess, art, and music, were unable to take place in person. When students were able to return to the classroom many teachers took notice of the lack of social skills that kids missed out on while at home. Play dates were scarce and schools were unable to meet in person and the schools who were lucky enough to meet in person, were unable to play together. The result of this lost play is apparent in our everyday life. There is a longing feeling that is shared by many due to the lack of play that we all crave on some level. Whether one's play is a hobby they enjoy, a sport played on weekends, or just seeing friends in person, each person has had some barrier to being able to play. Conflicts were not as easily resolved, and emotions were high amongst both students and teachers. Perhaps the most convincing argument for including play as a fundamental part of Marin's Kindergarten pedagogy is its ability to teach the skills that have been most neglected while students were forced to stay home from school. As society has taken some time to reflect during the shutdown of the pandemic, simple things like play shine brighter as a necessity to live a full life. Schools are more than a place to learn simple academic skills to achieve high test scores. Schools can be the place where we learn to be human with one another through play, learning, and growth. Skills such as memorization of facts or formulas are of the least value with a

smartphone within arm's reach 24 hours a day and welcomed into today's working environment. Learning how to be able to disagree with an opposing opinion respectfully is more valuable than long division. PBL gives students the best chance to meet the ever-evolving world with the most relevant set of skills to be able to thrive.

## References

- Bassok, D., Latham, S., & Rorem, A. (2016). Is Kindergarten the new first grade? AERA Open. <https://doi.org/10.1177/2332858415616358>.
- CAST (2018). Universal Design for Learning guidelines version 2.2. Retrieved from <http://udlguidelines.cast.org>.
- California Commission on Teacher Credentialing. (2016). Teacher Performance Expectations. Sacramento, CA
- Han et al. (2010). Does play make a difference?: How play intervention affects the vocabulary learning of at-risk preschoolers. *American Journal of Play*, 3, 82-105.
- Keung, C.P.C. & Cheung, A.C.K. (2019). Towards holistic supporting of play-based Learning implementation in Kindergartens: A mixed method study. *Early Childhood Education Journal*, 47, 627–640. <https://doi.org/10.1007/s10643-019-00956-2>
- Marin. Ed. (n.d.). Retrieved December 13, 2021, from <https://www.ed-data.org/county/Marin>.
- Pyle, A., & Danniels, E. (2017). A continuum of play-based learning: The role of the teacher in play-based pedagogy and the fear of hijacking play. *Early Education & Development*, 28(3), 274–289. [https://doi-org.dominican.idm.oclc.org/10.1080/10409289.2016.1220771](https://doi.org.dominican.idm.oclc.org/10.1080/10409289.2016.1220771)
- Pyle, A., DeLuca, C., & Danniels, E. (2017), A scoping review of research on play-based pedagogies in kindergarten education. *Rev Educ*, 5: 311-351. <https://doi.org/10.1002/rev3.3097>
- Stipek, D., & Feiler, R. (1995). Effects of different instructional approaches on young

children's achievement and motivation. *Child Development*, 66(1), 209–223.

<https://doi-org.dominican.idm.oclc.org/10.2307/1131201>.

U.S. Census Bureau quick facts: Marin County, California. (n.d.). Retrieved December 12, 2021,

<https://www.census.gov/quickfacts/fact/table/marincountycalifornia/INC110219>.

Wickstrom, H., Pyle, A., & DeLuca, C. (2019). Does theory translate into practice?

An observational study of current mathematics pedagogies in play-based Kindergarten. *Early Childhood Education Journal*, 47(3), 287–295.

<https://doi-org.dominican.idm.oclc.org/10.1007/s10643-018-00925-1>

## **Appendix A**

### **Modifying Current Kindergarten Lessons into PBL Lessons: Adapting Tradition Lessons into Play-Based Learning**

For this section, the intention is to take three current Kindergarten lessons from a classroom in Marin County and adapt and shift them to reflect a PBL approach. The lessons are taken from a current Kindergarten teacher in a Bay Area School. Notably, all three of the lessons incorporate parts of play into the lesson without explicitly stating so. By changing the lessons into play-based, the outcomes of the lessons remain the same with an addition of engaging play. The shift to a PBL approach should not ask the teacher to fundamentally change the way every day lessons occur, but rather should embellish or add an element of PBL into the lesson. This change reflects the possible transition that Marin Kindergarten teachers would be able to make to take steps to fully embracing a PBL approach. This section will first give a brief description on what the lesson is asking students to do, as well as the core learning goal of each lesson.

#### ***Writing Lesson***

In this lesson, students are working on phonemic awareness. The ability to understand that letters make a sound in a word is fundamental to being able to decode and understand text. The lesson begins by drawing the students' attention with a familiar melody of a song, adding new lyrics to spark the students' curiosity. Students are walked through a "mini lesson" in which the teacher asks students to use their alphabet chart to find what letter makes a certain sound. The letter a has an apple next to it while the letter b has a /b/ sound, etc.

The teacher demonstrates the necessary skill of phonemic awareness by showing a picture of bees on a small board and emphasizing the first sound of the word, making a /b/ sound. Then, students can use their own chart to see which letter matches up with the sound at the beginning of the word *bee*. This lesson is using previous knowledge of the symbols on the alphabet chart to help guide the students to find the right letter. When the teacher makes the /b/ sound, the students can look at their chart and find the corresponding letter and symbol. After a few successful examples, the teacher reminds the students to use this same technique when they are trying to write more of the stories they have been working on.

To make this lesson a play-based lesson, the teacher simply can continue this lesson with an addition of Collaborative-Directed play and Playing Through Games. Instead of the teacher offering a suggestion that is built into the lesson, the teacher can give a series of choices for topics of a story that the class is going to write together. The choice of topic is collaborative made by the teacher, as well as the students, on what the story will be about. Perhaps the class has shown and suggested the interest of baseball given that some of the students have been watching the Major League Baseball Playoffs. With suggestions from the class, the teacher can begin a story pausing at certain words and asking students what letter the next word in the sentence starts with. When the phrase "Home Run" comes up in the story, the teacher can take the same opportunity to show the use of phonemic awareness with the confidence that there is a larger sense of interest and agency by the students. After the story is written, students can have the opportunity for role play in which the students can act out their classes' story.

Further, the teacher can emphasize the fun and knowledge of this lesson with a small rules tweak to an already existing game: Mad libs. Mad Libs tell a story, often humorous, leaving blank places for the participants to add a word. The teacher can change the suggestions of verbs and nouns to words that start or end with a certain letter. At the end of the story students are excited at the opportunity to hear their new story and may have a newfound inspiration for the story they will continue to write. The structure of Mad Libs further lends itself to a common tool in current classrooms - "sentence starters," where students are given the opportunity to use the structure of the prescribed sentence to get their message across.

### ***Math Lesson***

The Math lesson for the Kindergarteners begins again with the teacher drawing the attention of the students by sparking their curiosity and asking a question. The teacher begins by holding up a card that has a number on it and asking the students what they notice. After some observations have been made, the teacher will then go on to pass out some pennies around the classroom. After receiving some responses of what a penny is, the teacher goes on to explain what game the students will be playing. Students are asked to take a stack of the cards, flip one over, and put that many pennies into a ten-frame to represent the number on the card. Variations are offered for gameplay, but the main objective is for the students to begin to understand the one-to-one relationship that a penny has and more importantly that a number represents a certain amount of another thing or object. Students are walked through a few rounds of gameplay with the teacher who will assuredly make some mistakes to see if the students understand the concept. For example, the teacher may flip over a card that contains the number three but count

out five pennies and ask the students if they have the right amount, which ideally results in a chorus of “No!” from the class.

To further this lesson and build in even more play, what if the students were given a small picture-based menu of items for a pretend restaurant in their own classroom? Perhaps students in the class have expressed an interest in ice cream during Free Play and the teacher has invested in some realistic ice cream play items? A teacher could make a menu that contains pictures of the flavors of ice cream with the amount that each of them cost. Vanilla costs five cents and chocolate costs seven! Students could wait their turn to order a scoop of pretend (or real) ice cream from a few chosen students and would be asked to pay with some of the pennies that they have been given. The cashiers of the ice cream parlor could have a ten frame on the counter helping reinforce the goal of the original lesson. When a child orders their ice cream, a cashier would have to ask for the correct amount of money, count the pennies that were given to them, and then allow the student to get their scoop only if they have been given the right amount of money. Students are still mastering the skill of associating a number with a number of pennies but are also using their patience to wait for their turn, among other social-emotional skills.

This adaptation into a play-based lesson is using Collaborative Directed play to teach a lesson. Ice cream was shown to be of interest in this imaginary scenario but could be changed for almost anything. This lesson is Collaborative directed by both the teacher and the students as both are giving input into what the lesson will look like as well as who plays what role. This lesson further lends itself to the progression of math skills, as students will need to learn the value of greater coins and denominations of money which lends itself to greater mathematical concepts. Imagine a Kindergarten student showing

interest in their parents paying for groceries, asking how many pennies they needed to get all the food that day. The learning never stops.

### ***Reading Lesson***

This reading lesson from a Kindergarten classroom emphasizes re-reading parts of a story or even an entire story as a way to further master reading comprehension. The teacher brings out a book that has been frequently read throughout the school year that many of the students know by heart. The teacher reads the book as a student would, slowly moving through words as if they are unsure, and then makes an overly simplified summary of an entire page. The teacher, still pretending they are just like a student, claims that they already know that part of the story because they have read it so many times and do not need to read it again to which the class adamantly tells the teacher they are wrong. The teacher returns to the page where they began their unfocused reading behaviors and asks the students for help reading through correctly. The teacher enlists the class's help with reading familiar parts of the story, pausing like the lead singer of a band holding the microphone to the crowd to sing the most popular part of the song, giving praise when the class remembers the words without any help.

Changing this lesson into a play-based lesson does not take a lot of re-thinking. Rather, with a few small tweaks, the lesson can be transformed into a rich Play-Based Lesson. This lesson relies on the fact that students have been reading a few books for the entire school year and have, at this point, memorized many of the stories. Role play allows children to experiment with vocabulary in a way they do not get the opportunity to do daily. A play-based, Collaborative directed lesson asks the students to volunteer to role-play certain parts of the story that are well known. Students can be asked to find a

costume or create one in which they can truly take on the role and perspective of another character. In an example in the original lesson, the teacher reads the classic story Three Billy Goats Gruff and asks the students to say the line, “Who’s that tripping over my bridge?” Take that same moment and instead let one student pretend they are the troll under the bridge. A student can use a voice they may never have tried and are certainly using language they would not regularly use. It would be very uncommon for a Kindergartener to describe goats “tripping” over a bridge, yet they are not a typical kindergartener at this moment. Not only does this role-play benefit the students who want to play a new role, it can also provide a visual depiction of what is happening in the story that is not often done justice by looking at the pictures in the book alone. The audience gets to see their fellow classmates acting out a story they know well and will be excited at the possibility to read more stories that they may be able to act out. Furthermore, a student may find new motivation for reading, sparking curiosity they can bring with them anywhere.

## **Appendix B: Integration of UDL into PBL**

Another of the requirements of public-school teachers in California is to create lessons that use a Universal Design for Learning (UDL) approach. As discussed earlier in this paper, UDL asks teachers to create lessons that can apply to all learners in a variety of ways. UDL focuses on three core tenets to best create lessons that will engage students and let them express their learning in the most effective way. PBL offers the best means to use the three core tenets of UDL. Within UDL are three main tenets that a teacher must work to best achieve: Engagement, Representation, and Action and Expression (CAST). The first of the three core ideas of UDL is Engagement, or the way that a teacher engages a student with new information. According to a UDL website, “learners differ markedly in the ways in which they can be engaged or motivated to learn” (CAST.org). Engagement essentially homes in on the interests of the individual students and asks a teacher to engage the students in a way that will be most effective. What possible better way is there to engage a classroom of Kindergarteners than through play? Teachers can use the Collaborative play-based lesson by spending time engaging the students in their interests just like in the boat example. A teacher may spend time in the early part of the school year observing Free Play and engaging in Inquiry Based play to get to know their students. The teacher can then be confident that their choice of subject matter will engage their students and guarantee their lesson will pull its full weight. Using play offers a teacher a means to see how all students prefer to be engaged from the activities they enjoy to the way they play with others and act.

The second of the UDL guidelines, Representation, asks teachers to find diverse ways to represent new ideas and material as many learners “differ in the ways that they

perceive and comprehend information that is presented to them” (CAST.org). Students all have a preference in the way that they access information. Asking all the students in a Kindergarten classroom to sit and listen does not benefit the students who have a tendency for sensory overload. Play offers a wide variety in its representation of material while using a familiar setting. One of the best ways that a Kindergarten teacher can introduce this different representation is through the Free Play that is already taking place in the classroom. Blocks that students use to build with frequently can have numbers on them, introducing Kindergarten students to mathematical concepts. A role play area in which students can use a pretend kitchen can contain labels with the words of the object’s children are using, incorporating language into play. Even board games and card games that students desire to play contain academic concepts and offer different methods of representation to students.

The third and final emphasis in UDL is Action and Expression, or the way students express what they know. When students are given one option in how to show their learning, educators create filters and barriers that are not relevant to the knowledge. If the goal of a reading workshop is to evaluate a student’s comprehension, then a teacher should allow the student myriad ways to express their learning. Drawing a comic strip, writing down big events, or even building with the number blocks the big scenes of a story are all ways students can express their learning. Play expands Action and Expression for students and teachers alike and must be integrated into the classroom.

### **Appendix C: Defining the Continuum of Play-Based Learning**

To begin to understand a play-based pedagogical teaching method, educators must first redefine what play is and the different types of play that exist. In the example of two boys in the morning at the YMCA, the boys used Inquiry Play to engage deeper in politics of the U.S. as well as understanding how news is made. Inquiry play is one type of play among many but the lessons from this example translate perfectly to a kindergarten classroom where curiosity is at its highest and skills are at their lowest of a student's academic career. Through play-based pedagogy, students learn the social skills as well as the academic concepts that will set the foundation for their schooling career and life in general.

Traditionally, play and academic learning have been binary opposites (Pyle & Danniels, 2016). The common view of play is as a necessary break from the academically rigorous classroom work that seems more commonplace in kindergarten classrooms. Often, play is a reward for hard work done and is something that kids are to grow out of. With this narrow definition of play, students as young as four years old are asked to sit still for an extended period and listen to an adult talk about abstract concepts. Asking a child to listen to an adult naming the letters in the alphabet when they only just learned how to say their name is a tall order. It is in this dichotomy of play and academic work that the spectrum of play is lost in the eyes of society.

To begin to understand the efficacy of a play-based pedagogy, one must first understand the different types of play and their purpose. Pyle and Danniels (2016) lay out a spectrum of play that include five distinctively named play types and the role of the child and teacher in each type of play. The names of these types of play are taken from the

Pyle and Danniels study, "A Continuum of Play Based Learning" with the addition of examples and uses of each type of play. Given that society may have an overly simple definition of play, it is crucial to understand play as a continuum that has differing levels of teacher involvement to be able to understand what play-based pedagogy looks like and why it is such an effective strategy for kindergarten.

### **Free Play**

The first and most understood type of play is free play. The most important and defining feature of free play is the lack of teacher involvement which is what places it on one end of the play spectrum. In the Kindergarten classroom, free play is the most used type of play and is what most teachers and parents think of when they think of play. The lack of structure and teacher involvement gives the student the permission to fail without any of the shame or embarrassment that might come while performing a task in front of their peers.

### **Inquiry Play**

In this type of play, a teacher observes students showing interest in a certain area and provides more information and resources to expand the curiosity of the students. The example used in the beginning of this paper is a prime example of free play, in which two students expressed interest in news and politics and then were able to dive deeper into the subject with the help of a teacher. By doing so, the students acquire more knowledge of the topic as well as use of academic skills in a real-world scenario.

### **Collaborative Directed Play**

In this type of play, students and teachers work side-by-side to create a play activity. Students continue to have agency in their play while the teacher actively takes a part in the play and planning process from the start. Picture a type of play in which a teacher asks a class what type of profession the students would all like to know more about in a class or given group. Students may show interest in how a doctor's office runs and functions, which gives a teacher the chance to use this context for unlimited learning opportunities. Teachers may ask the students to take part in a pretend office in which students are asked to keep an appointment book of the offices upcoming pretend appointments. Students can come to an appointment with an ailment of their choice giving the pretend doctor the ability to take time to research what type of cure someone with this ailment might need. The opportunities for academic learning are countless within this imaginary situation while the children feel a sense of ownership in their learning.

### **Playful Learning**

Playful learning begins with a desired academic or social-emotional goal. A teacher may need their students to practice their ability to add and subtract numbers. Rather than sit students on the classroom carpet, demonstrate methods for how to best add and subtract numbers, and then hand them a worksheet to complete, teachers in playful learning use play as the context for the same learning. In one example, a teacher may use a menu (that includes prices) for students to order a special snack or prize. Students would be able to earn classroom "money" in predetermined ways then make purchases in which the students would have to calculate how much money they might need and how much change they should expect to get back. A teacher could provide an order form for students

to submit thereby demonstrating a student's proficiency in the mathematical concepts while a student thinks they are simply acquiring a reward. Not only is a student able to master the skills of adding and subtracting, but they are also learning to be responsible with a resource, a which is a valuable life lesson. Playful learning places the locus of control in the hands of the teacher while still engaging students in a playful manner.

### **Learning through Games**

Students understand this type of play as having the most explicit purpose being assigned by the teacher while also keeping the context of learning in a playful manner. Students playing the board game Scrabble learn about spelling, phonics, and phonemic awareness. The card game "Go Fish" can be played with special math cards rather than playing cards, allowing students to perform a math problem or demonstrate understanding of numbers. In playing through games, the rules are already defined by the game or teacher and students participate the same way many participate in a game night at one's house.