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Difference between Behavior and Engagement By Comparing Teaching Styles

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An Action Research Project Presented

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Abstract

The purpose of this action research project was to determine the difference in behavior and engagement by comparing two teaching styles. Participants were 10 five-year-olds in a public, inclusive, half-day transitional kindergarten setting. Data was collected through observation during 30-minute lessons for a five-week period. Specific behaviors were tallied, as well as teacher observation of student engagement and recording of standards completed during each lesson. Analysis of the data collected suggests that play-based teaching has positive impacts on decreasing behaviors and increasing student engagement.

Keywords: play-based learning, early-childhood education

Relationship Between Teaching Styles and Student Behaviors and Engagement

Since the onset of the Common Core State Standards, teachers have felt the pressure to make sure they are accomplishing what needs to be done in the classroom (Cavanaugh et al., 2017, p. 832). This has created an ever-increasing dichotomy between play and learning (Pyle, 2018, p. 117). Teachers around the globe and of all age groups have started using more and more direct instruction to make sure students are getting the instruction they need. This requires young students to sit for longer periods of time than they can handle. Then, once the direct instruction is done, students can play.

As an early childhood teacher, the researcher was looking specifically at how play can affect student engagement by decreasing student behaviors. This day in age teachers get students who come into classrooms from all walks of life. Unfortunately, with the increase of screen time children are exposed to, they are struggling more and more to sit still and listen to direct instruction (Salo, 2009, p. 28). Therefore, play is something that needs to be returned to the classroom that is a part of student learning, and not something that is separate as an option at the end of the day. All teachers know when they are losing their classes attention. When this happens teachers will notice student behaviors increasing and hard to take care of. This results in a frustrated teacher and students who are unable to find joy in learning.

Research tells us that at the early childhood level teachers need to be doing a better job of exposing children to literacy practices through multiple kinds of experiences that involve informal play (Cavanaugh et al., 2017, p. 832). This would require teachers to utilize a more

play-based learning approach in our classrooms that lets students dictate their direction of play and where it goes.

Play-based learning does not mean that teachers let students go with no instruction. Teachers need to find a balance between instruction, play, and adult interaction. Playing in the classroom should allow students to choose what it is they do while the teacher is there to facilitate the play by enhancing the experience and monitoring when and how the play happens (Gronlund & Rendon, 2017, p.81). Open-ended play gives teachers freedom to select appropriate materials depending on what standards are hoping to be accomplished during play time that day. If teachers can set up an appropriate play-based learning environment in their classroom, then the hope would be that students will not only make academic gains, but also social-and emotional gains as well. Research linked to play-based learning notices that students who participate in high levels of play experience gains in multiple domains such as approaches to learning, physical health, and cognitive learning (Cavanaugh et al., 2017, p. 832).

The researcher is seeking to find out if play based learning can help increase student engagement by decreasing student behaviors. The researcher for this project was finding that students were struggling to maintain attention during sedentary teaching times. She noticed that her students were more prone to blurt, lay on the floor, or bother their neighbor. The researcher was very aware that she was losing her students attention and finding that instruction was very rote and mundane and made it hard for students to be engaged in what was happening. The researcher is looking to see if by merging learning and play together using a play-based learning approach her students would be more engaged and have less behavior problems by providing them with choices allowing for more open-ended play time.

Review of the Literature

When thinking about preschool, transitional kindergarten, and kindergarten classrooms one does not instantly think of play, anymore. Unfortunately, the trend in school systems is that classrooms need to be more "rigorous" and spend less time playing (Cavanaugh et al., 2017, p. 832). Not only is there a misunderstanding of the word rigor, but a misunderstanding of the value that can be found in play. Educators need to rethink what needs to be done in classrooms in order to promote academic success while still providing structure and rigor for our students at the early childhood level. Research suggests that good education allows children to play and explore within their own personal world (Clements, 2009, p. 2). Stipek (2017) tells educators that there does not need to be a choice between academic learning and play, but that students enjoy learning math skills without paper pencil worksheets or flash cards (Stipek, 2017).

History of Kindergarten

The founder of Kindergarten, Friedrich Froebel, intended kindergarten to be a classroom that integrated the appropriate amount of play with various materials that allowed them to experiment and learn in their own environment with minimal adult support (Pyle, 2018, p. 117). His biggest intentions were to design a space that allowed children to explore using their own ideas and creativity. Cavanaugh et al. states that this was in line with psychologists Piaget and Vygotsky's theoretical work which supported that children do in fact learn through play (2017, p. 832). While learning through play they are practicing various other skills such as communication and learning how language works Frobel wanted to make sure that kindergarten was valued, and

that people understood that learning was happening, and it wasn't just a place of preparation for student's future (Colgan, 2016, p. 21).

Pushback to Play-Based Learning

Beginning in the 1950's there started to be a shift in the way people thought kindergarten needed to be done (Colgan, 2016, p. 21). People began shifting their thinking from play to "rigor". This meant that the look of the kindergarten classroom started to look more academic in its approach and involved less free play. They wanted it to look more like a first-grade classroom where teachers utilized direct instruction and students did more paper pencil activities. Teachers thought rigor looked like students being taught directly by the teacher and practicing skills using paper and pencil. Unfortunately, by putting paper and pencil in front of students, teachers are decontextualizing the work that is being asked of students (Excell, 2011, p. 28). When teachers put paper and pencil in front of a child it minimizes its application. A student would better connect a mathematical concept as addition when done in the context of them wanting more of something. They could have two apple slices and want two more. This could be turned into an addition activity that they connect with as opposed to a paper with a mathematical sentence on it with no context. Teachers use of direct instruction became worse with the introduction of "No Child Left Behind". This meant that teachers were being pressured to make sure students were scoring proficiency levels on standardized tests. This also increased the use of "scripted curricula" to help make sure students were getting what they needed from their teacher (Cavanaugh et al., 2017, p. 832). Since all of this, there has been a problem in the early childhood setting concerning play and academic learning. Teachers are struggling to see the benefits behind using developmentally appropriate pedagogical practices when they are feeling much pressure from administration, parents, and the governments to make sure students are in

fact meeting the academic standards set in place for them (Pyle, 2018, p. 117). This has resulted

in play becoming something separate from learning where students can play, after they have

learned. Teachers who do not think learning can be done through play, or do not value the play

and learning will have play happen after the learning has been done.

Play-Based Learning Pedagogy and Research

Excell states that children learn best through an informal play-based approach that is

holistic in supporting child development (Excell, 2011, p. 35). Therefore, teachers must be

educated in research based developmentally appropriate practice. Teachers need to be providing

an early childhood experience that meets student's whole bodies needs through multiple

experiences and in various ways. Teachers must begin to recognize that play does not mean less

rigor. Play allows students and teachers to broaden their focus beyond skills alone (Willis,

1993). This means that when infusing learning with play, teachers are allowing students to

practice more than one skill at a time. Teachers limit student's ability to connect with their work

when handing students a worksheet to practice writing one single letter when they could practice

writing multiple letters when creating their own grocery list. When the only method of skills

practice is placing paper and pencil in front of students, this creates for a stale and rigid

classroom that removes the joy from learning at such a young age. Teachers need to keep the joy

in learning by allowing children to play and foster their development (Cavanaugh et al., 2017, p.

831).

An early childhood classroom that effectively uses play is benefiting the whole child

(Cavanaugh et al., 2017, p. 832). Play can be used to meet the five developmental domains of

children that include physical (gross and fine motor), language (language development, advances

their verbal skills, increases their vocabular, and improves their language comprehension), social

and emotional (self-regulation, empathy, cooperation, turn taking, and cognitive development) (Pyle, 2018, p. 118). While children are playing, they are practicing and developing skills like problem solving and divergent and convergent thinking skills. This in fact is helpful in developing all the developmental domains. Play allows children to construct their own knowledge and build off what they already know while using and experimenting with new and old materials (Pyle, 2018, p. 118).

The benefits of play extend beyond academic growth. Students who engage in pretend play are working on executive function skills (Gronlund & Rendon, 2017, p. 14). Executive function helps with the cognitive process of self-control of thought and action. When students work on their executive function, they have gains in creativity, flexibility, self-control, discipline and school success (Cavanaugh et al., 2017, p. 833). Teachers can strengthen and grow neural connections by providing students with rich playful experiences. When students are immersed in play it has been noted that brain growth is stimulated in both the prefrontal cortex and the amygdala (Gronlund & Rendon, 2017, p. 14). When teachers build a child's brain, they are helping them long-term. By activating their amygdala and prefrontal cortex students can improve their executive function. This is highly important for young children. Diamond discusses that executive function, the way the human brain is able to manage attention, emotions, and behaviors, can better predict student success than an IQ score (Diamond, 2013, p. 3). Play-based learning allows students to activate and grow all parts of the brain that will have life-long benefits for students. Research shows that students who engage in child-initiated play in the preschool experience academic success in the primary grades (Copple and Bredekamp 2009).

Not only can teachers help improve all five domains, but research would tell you that children in play are above their daily average (Excell, 2011, p. 36). This means that when

children are immersed in play they are better able to perform and act older than they appear. When a five-year old is playing house, they may take on the role of a mother, acting much older than a typical five-year old would. Play allows them to explore and go to worlds they have never been or dream of going to (Gronlund & Rendon, 2017, p. 15). Play-based pedagogy allows teachers to let students be who they are and take risks within a safe environment. When children feel safe they are able to practice different behaviors or feelings that they may not usually experiences such as bravery or power. Then they can use their play experiences to help them in the real-world when they encounter frightening moments (Gronlund & Rendon, 2017, p. 15).

Play-based pedagogy can be done in multiple ways within the classroom. The three different styles of play discussed by Edwards and Mackenzie (2013) are reproductive activity, combinatorial activity, and pedagogical play. Reproductive play is when children merely reproduce what they already know or have seen. This could involve drawing a picture of their own house. This is important because it allows children to relate to their environment. Combinatorial activity is merely the idea that children are using their imagination. This is when children are playing pretend and the arousal of new objects and thoughts come up. Pedagogical play is more teacher focused on how they are going to use their role as the teacher to support learning. This is different than a teacher led activity that dictates what is happening, rather the teacher is following the lead of the students and encouraging and suggesting without interfering (Edwards & Cutter-Mackenzie, 2013, p. 331).

Best-Practice Play-Based Pedagogy

As stated earlier, play-based learning is in line with Piaget and Vygotsky's theories of child development. However, it is important to note that teachers cannot just assume that children are learning through play. Play-based pedagogy is still an intentional teaching practice

(Gronlund & Rendon, 2013, p. 53). Vygotsky talks about the zone of proximal development in his research. The zone of proximal development is when a teacher takes a student's task just outside their comfort zone. In order to go to the next level, they are going to need adult scaffolding to help them get there (Stanton-chapman, 2015, p. 100). Piaget emphasized that child-directed play is going to involve what children already know (Colgan, 2016, p. 21). If teachers strictly rely on open-ended play, students will miss learning opportunities (Edwards & Cutter-Mackenzie, 2013, p. 329). If play-based learning is going to be done well within classrooms it must be done the right way. Cavanaugh's definition of a high-quality early childhood program is teachers providing flexible instructional approaches with a planned set of content to help students grow across developmental domains (Cavanaugh et al., 2017, p. 832). This means that teachers need to intentionally plan out what the learning targets are, provide the appropriate materials to help students meet those, and then let children explore and lead the play with adult guidance and support. Teachers need to be intentional about the way classrooms are set up, what materials are offered, and the techniques and strategies used. The teacher does not get to hope that children will learn but find ways to use children's play to help them learn. Findings from the Effective Provision of Preschool Education indicate that teacher engagement with children during play-based activities are necessary for supporting the construction of conceptual knowledge (Edwards & Cutter-Mackenzie, 2013, p.329). This indeed places a very important role on the teacher. Teachers need to be able to know what standards students have completed and which ones they need work, evaluate their play, and then intervene in such a way that is not disruptive to the play, but enhances the play.

Rendon and Gronlund (2017) have laid out an approach that is incredibly helpful as teachers go about making sure student engagement and learning happens while using play-based

learning. They make the case for brining play back to the classroom by making sure that teachers understand that standards can be met through play when it is integrated in an intentional way (Cook, 2015). Teachers need to be aware of the way that play can replace worksheets and teacher led activities. Gronlund and Rendon are not advocates for dismissing direct instruction in preschool and kindergarten completely, but finding an appropriate balance between direct instruction, teacher led activities, and play-based learning in order to ensure student engagement using developmentally appropriate practice (Gronlund & Rendon, 2017, p. 54). Excellent teachers know how to help students learn and keep them engaged by using a variety of teaching strategies and learning styles (Copple & Bredekamp 2009).

When implementing play-based learning your planning must be intentional. The four steps laid out by Thomas Rendon and Gaye Gronlund (2017) is identify the standard(s) to be addressed, consider the best materials to provide, choose possible teacher support strategies, and determine how to gather assessment information. Teachers need to be aware of what standards will be more easily addressed through play and plan for those. Gronlund and Rendon provide some guidance by suggesting that teachers focus on standards that occur naturally in play experiences and students are able to show a standard in multiple ways. This helps teachers understand which standards to address through play-based learning. When thinking about what materials are needed to be provided the teacher must plan ahead and think about how students will play with the materials given. They need to consider the various ways different toys could be used by different students. A key component to play-based learning is the assessment component. In order to get the clearest picture of what a student knows teachers need to utilize assessment correctly within play-based learning. Assessment through play allows teachers to gather authentic assessment data that can be reliable in understanding what students know,

understand, and can do (Gronlund & Rendon, 2017, p. 62). When planning how to assess

children during play-based learning teachers need to make sure they remind themselves what

standards they are looking for, and how those standards can be met through what children

accomplish. Teachers can also utilize their own questioning and conversation techniques to help

get a clearer picture of students understanding. For example, while a group of students is

planning out a play, the teacher may ask students about the setting of their play or what the

problem of their play is. This can help the teacher know if they are grasping the concept of story

elements or not. It is also important to make sure you document by writing down anecdotal

notes, keeping pieces of work, or taking pictures to document student work (Gronlund &

Rendon, 2017, p. 62-63).

The intentional planning process laid out for play-based learning should leave teachers

with the understanding that play-based learning/teaching is not easy. It is a task that requires

much intentionality, excellent assessment abilities, and an ever-increasing knowledge of how to

improve and build upon children's play. This means that teachers need to know what they are

wanting students to learn before they enter our classrooms. Teachers need to have great

understanding of the standards they teach in order to provide the opportunities students need to

practice and engage with the learning material. For play-based learning to be done effectively,

teachers need to be educated and know how to properly support and execute play-based learning

(Colgan, 2016, p. 21). This means that teachers should be ever increasing their knowledge of

play-based pedagogy through research.

Problem Behaviors and Student Engagement

Student engagement is an important piece to what educators are trying to get

accomplished. Engagement is something teachers need to focus on first, followed by content and

then rigor (Wolpert-Gawron, 2018). Teachers are trying to find ways to get their students to become engaged. Engagement in the school setting has three different forms: behavioral, cognitive, and affective engagement (Carter, 2012, p. 62). Behavioral engagement is simply students attending school and or extra-curricular activities. Cognitive engagement is students' level of interest in their learning and how they can find relevance in what they are doing. This also involves the level of challenge students may face and how much effort they need to put forth in order to accomplish the skills (Carter, 2012, p. 62). Affective engagement is considered the relational part. This measures how students feel about their connectedness to school whether that be positive or negative as well as their relationships with people in the school setting. All levels of engagement are important to consider when thinking about students experience in school.

        For the purpose of this study, the researcher was mainly considering academic engagement. Behavioral indicators of academic engagement include efforts in task, time on task, and work completion (Carter, 2012 p. 62). According to Carter academic engagement can be measured through teacher observations and reports. When a teacher is observing a classroom for engagement, they need to be sure that they are not simply seeing compliant students but engaged students. Jackson and Zmuda discuss the impact of real engagement versus compliance in reminding teachers that engagement is so much more than students who sit and listen to us, but is actually the unearthing of student talents and dreams by instilling qualities such as hard work and perseverance in them through classroom strategies that are engaging (Jackson, 2014, p. 19). In their article they list the following characteristics of what an engaged learner looks like: they focus on learning and share their thoughts, they pursue their own train of thought about a topic of study, immersed in their task, and annoyed by interruptions (Jackson, 2014, p. 20).

When thinking about problem behaviors in relation to student engagement, teachers must differentiate between signs of disengagement, and not merely students who are not compliant to our teaching standards. (Jackson & Zmuda, 2014, p. 18). This means that blurting may be appropriate at times if it is relatable to the work a student is doing. When blurting is unrelated and carries to connection, this may be a sign of a disengaged student. Other behaviors that may be linked to signs of disengagement in the classroom would involve students laying on the floor not paying attention, bothering a neighbor with something unrelated, or the teacher having to get students attention back to the task at hand. As stated earlier, if teachers want students who are truly engaged, then they need to be willing to give up a little teacher-student compliance and let students be hands on, explore, and take risks (Jackson & Zmuda, 2014 p. 18). Play-based learning is an excellent way to go about getting this done at an early childhood level because it allows students to dictate where they take their learning with the help of teacher planning, preparation, and assistance. Teachers who promote true engagement in their classroom must provide clear goals and offer students the appropriate context of learning to allow students to connect it with their own worlds (Jackson & Zmuda, 2014, p. 24).

Methods

Participants

All who participated in this study were in a class with 10 students in it, 3 girls and 7 boys. Most of the students in this class were young five-year olds with late summer birthdays. The rest had birthdays ranging from December to May. There were three students on Individualized Education Plans. Two of those were speech IEP's and one was an academic IEP. The student on an academic IEP is diagnosed with cerebral palsy and has intense fine motor needs and needs a para in the room to make sure he his safety is taken care of. One student was on a 504 to help with sensory needs. Four students were considered English Language Learners. Two of those students hardly spoke any English at all, one of them being one speech IEP, and the other was quite fluent in English and Spanish. There is one aide that is in our room all day to help take care of the student with cerebral palsy and help meet academic needs.

Data Collection

This action research project was conducted in a half-day Transitional Kindergarten classroom in Northwest Iowa. The data collection took place during a one-half hour time period during the classes theme instructional time. Theme time is consisted of focusing in on science and social studies standards, while also working on concepts of print and storytelling. The focus of this action research project was to see if changing the teaching style would improve student

disruptive behaviors as well as student engagement. Data was collected using an observer

utilizing the tally system and the observer and teacher making anecdotal notes for the level of

engagement. The data collection process happened six times over a five-week period of time.

The first three times the observer came in the teacher was using a teacher-directed scripted

lesson plan. The next three observations the teacher had a short mini-lesson with the remaining

time used for students to explore, create, and play using the materials provided. This was done

using the play-based learning approach. Each session was thirty minutes long and was during the

Theme time. The independent variable in this action research project was the teaching style. The

teacher was shifting from using a teacher directed scripted lesson to a play-based learning

teaching style. The dependent variables in this study were student off-task behavior and student

engagement. Student off-task behavior was done through simply using an observer to come in

and tally off-task disruptive behaviors such as blurting, bothering their neighbor, laying on the

floor, off task, disruptive to class, and teacher redirects. When collecting data for student

engagement the teacher collected artifacts, the teacher and the observer recorded anecdotal notes

on student behavior, comments, and level of engagement.

Each time the observer, the school buildings instructional coach, would come into the

classroom and do two things. One, she would tally student behavior on a chart that was divided

into a boy and girl column (See Appendix A). This was simply done to help the teacher identify

if there was a certain student group that struggled more than the other. The behaviors listed on

the chart were: blurting, bothering neighbor, laying on the floor/not paying attention, off task,

disruptive to class, and teacher redirect. Two, the observer also took anecdotal notes regarding

student engagement or if there was anything specific the teacher needed to know. During this

time the teacher also added any notes to this section that she felt were necessary. This may

include comments from students or her own informal observations. The teacher also had her own

chart (See Appendix A) that she used to record what standards she noticed students completing

during each thirty-minute session. The chart had students' names down the side and then a date

at the top. The teacher would record what standard she noted happening in the box next to each

student's name.

      Once all of this was completed, the teacher entered all in the information into an excel

document. The first set of information was a table with recorded tally marks for each behavior.

The second page were the notes on student engagement, and the final page was a list of the

standards being completed by students during each lesson.

      The way this data was collected it could easily be accomplished by someone else looking

into this same research question. Due to the nature of this research question and that it was

focused in on one small sample group of students, another researcher may come up with different

results according to their class makeup.

Findings

Data Analysis

The action research plan used both qualitative and quantitative data. The data analysis needed to understand the data collected is mixed. The action research question is "Does play-based learning increase student engagement by decreasing student behaviors?" The independent variable in this action research was the teaching style. The dependent variables in this study were off-task behavior and student engagement. Off-task behavior was defined as blurting, bothering a neighbor, laying on the floor, off task, or being disruptive to class. The measurement instrument used to collect data was a tally system documenting student behaviors, anecdotal notes, and teacher documentation of standards completed. The building instructional coach came into the classroom and collected quantitative and qualitative data. She collected quantitative data by using a tally system to track the number of different behaviors observed. These numbers were totaled and entered in an excel spread sheet. These numbers were then analyzed to see if the number of behaviors decreased when using the two different teaching styles. Table one breaks down the numbers into the number of behaviors that happened between boys and girls during the lessons while the teacher was using a scripted lesson plan with a planned activity. The behaviors included in this list were: blurting, bothering a neighbor, laying on the floor, off task, disruptive to class, and teacher redirect. This table shows that overall the total number of behaviors documented during these three lessons were 164 tallies. Table two breaks down the number of

observed behaviors that happened during the play-based learning teaching lessons. The total

number of behaviors documented during the play-based learning lessons was 42 tallies.

Table 1

Total Student Behaviors using Scripted Teaching Style

Date	Boy Behaviors	Girl Behaviors	Totals
March 27	33	8	41
April 1	40	23	63
Date	36	24	60
Totals:	109	55	164

Table 2

Total Student Behaviors using Play-Based Learning

Date	Boy Behaviors	Girl Behaviors	Totals
April 9	9	4	13
April 11	16	12	28
April 24	0	1	1
Totals:	25	17	42

When looking at this quantitative data, there were significantly less behaviors

documented during the play-based lessons as opposed to scripted lessons. When students were

seated for a short mini lesson and then given time to explore and play in the classroom with the

provided materials it decreased the documented behaviors as opposed to everyone doing the same thing or type of activity for the lesson time.

There were two different sets of qualitative data collected. The first set was simply anecdotally recording student comments and teacher observation. During the first three observation times the instructional coach noted that during the lesson portion of the time students were not listening to the teacher and making comments like, "I'm bored." During the planned activity time she observed the teacher having to give directions multiple times, students having a hard time getting started on the activity, students getting off-task because "they didn't want to color", and another student making the comment, "I don't want to do this." One teacher led activity she noted that some students were engaged, but others had a hard time knowing what to do and struggling with the wait time for their turn.

During the next three observations the instructional coach made comments that said, "students are very engaged in task," "everyone was able to participate and add something during the discovery time." She noticed that students were enjoying being able to pick their own options and found that groups of students would "play" together to create city and country structures. At the end of the discovery time when the teacher signaled for transitions there were groans around the room and students making comments like, "we don't want to be done." The observer also noted that the teacher was actively involved by facilitating students with their projects and helping them successfully complete their ideas. At one point she heard a student make the comment, "This is hard work!" while they were creating and building their own ideas. She also noted that many students were problem solving during this time. An example being, a little girl needed pink paint, but it was all gone so she put the red and white together to get the color she wanted.

The second set of qualitative data was teacher recording what standards were met during the play-based learning time. The teacher noted that her awareness of what students were doing during their creative play time increased during the play-based unit because she was always observing students to see what standards they were accomplishing. When it was the scripted lessons and teacher led activities, she noticed that she went into the lesson with one standard in mind and only assessed that standard. During the play-based unit the teacher had a clip board with each student's name by it and at the top of the page was the day's date. Then she walked around the room and made notes of students completing standards, or noticed students working on standards and would ask questions to see if they were able to complete the standard appropriately. An example of this would be a little boy creating a play with some of his classmates. The teacher observed the students wearing masks and talking about a story and she asked them, "Who are the characters in your story?" "Where is the story taking place?" Upon hearing their answers, she could assess their knowledge on story elements and would document this. During the play-based unit the teacher noted that multiple standards would be happening throughout play but not necessarily the same ones happening with all students at the same time. There would be times where some students would be noticing physical changes in paint by adding color, students working on story elements and retelling stories they had heard during story time, students measuring string to be able to make a mask stay on their head, students using number recognition to dial a phone number.

Along with documenting standards students were completing, the teacher took pictures of student's various creations throughout the 5 weeks. The first picture (Figure 1) is a picture of three student's creations in order to do the retelling of *The Three Little Pigs.* This was a planned teacher craft where students were given instructions on what to do and how to do it. This project

took 3 days to complete. The first day students discussed the characters in the story and colored

pre-copied pictures of the characters for the story. The second day students discussed the setting

of the story and colored the background their paper to match the setting and spent some time

coloring the houses. The teacher's aide in the room went around and showed students how to

color by taking the paper off the crayon to have more of a shading look. Then the third and final

day students added the elements to the houses and glued them in the correct order. The teacher

went around and assessed each student's ability to tell her the characters, setting, and a short

retell of the story.

Figure 1. Student work from *Three Little Pigs* retell.

This second set of pictures (Figure 2) is from the play-based unit. Here you see students creating,

building, and working together, on something of their choice. In the painting picture you will see

some students using books to help them see pictures of the city and country. The pictures are

from our time spent learning about different communities and how to be a helpful community

member. Students had access to legos, paints, recycled materials, cars, playdough, and a

dramatic play center with masks and stuffed animals.

Figure 2. Pictures from student work during play-based unit.

Discussion

Summary of the Major Findings

The findings of this study indicate that play-based learning does increase student engagement which results in decreasing the amount of behaviors in the classroom. The quantitative data shows this by the significant reduction in number of observed behaviors tallied by the instructional coach. This was done by using a Chi Square goodness of fit test. There is a statistically significant difference in the number of behaviors from the scripted teaching style (n = 164) and behaviors from the play-based learning teaching style (n=42) than expected with strong practical significant $\chi2(1) = 72.25$, p <.05 = .6. This would demonstrate that the teaching style positively impact student behavior in the classroom. The qualitative data speaks to the level of engagement the teacher was able to experience with her students. The comments students made showed that they enjoyed what they were doing by not wanting things to end. They also were able to use the teacher to help them complete their own projects rather than having to do what the teacher told them to do. According to the table from The Competent Classroom a learner who is engaged pursues their own train of thought and this sometimes may be difficult to finish in a timely manner (Jackson, 2014, p. 18). Play-based learning allowed students to follow their own train of thought which was evident in the products they made, and students being upset when the time was up. When comparing the products shown in Figure 1 and Figure 2 it is easy to see that students had freedom to go their own route during the play-based unit as opposed to three students creating the same product during the scripted teaching time. The products shown in Figure 2 represent student creativity to their own level. It shows that students were given choice and time to work on projects that they wanted. In Figure 1, it is evident that there was more teaching guiding than student creativity because all three products

look the same. When looking at the comments students made during the play-based unit time

where they were given flexibility as opposed to creating something teacher directed while also

looking at student work, it shows that engagement by students was much higher.

Limitations of the Study

One limitation of this study was that on one day while the class was being observed two

students were absent. When there are only 10 students that can impact the results. Another

limitation to this study could be the gender make-up of the class it was conducted in. The class

was made up of 7 boys and 3 girls. Boys tend to need more hands on and active learning than

girls. This is one of the reasons the data was collected and separated by gender to see if that was

influential on the data. If this study were to be done in multiple classrooms the results would

show if there seemed to be a difference in behaviors between boys and girls.

Further Study

An area of future study and research would be to see if there is the same impact of

students in other grade levels. This action research was done in a half day Transitional

Kindergarten classroom and it would be valuable to see what the results would show in a

kindergarten classroom that runs all day. A kindergarten classroom would involve more students

in the same room and have students that were older. It would also be beneficial to run the same

research in a preschool classroom. Researchers would be able to tell if the age of students made a

difference on the results or not.

Another area of study could be done on gender. While the researcher in this action

research split behaviors up between boys and girls, no statistical data was analyzed to see if there

any significant changes in behavior between boys and girls. Running the same research in the

preschool, transitional kindergarten, and kindergarten levels collecting and analyzing the difference between boys and girls would be one way to analyze and see if the gender make up of students made a difference or not.

A third area of study could be done on students who receive specialized services for either academic or behavioral concerns. This could be done by noting the difference in number of behaviors using the teaching style comparing students who are not on a behavior plan, IEP, or 504 and those who are.

Conclusion

When comparing the data from Table 1 and Table 2, it can be noted that there was a statistical difference in number of behaviors between a scripted and play-based teaching style. Along with this, is the increase of student engagement, which can be noted in the type of student work being done and the accomplishment of learning standards. By looking at the data as a whole, the decrease in student behaviors and increase of student engagement, this data and its findings support those also noticed in early childhood programs in Western Australia (Jay & Knaus, 2018). Play-based learning can positively impact a classroom that is struggling with behaviors and help increase student engagement. Play-based learning is continually backed by research as a pedagogy that is developmentally appropriate and necessary for learning to be done when teaching children at a young age (Chigeza & Sorin, 2016).

This teacher researcher had students struggling to pay attention and be engaged during the theme time of the day when the teacher was using a scripted lesson plan with a planned-out activity that was the same for all students. Based on the findings of this action research project, students will have less behaviors and be more engaged when the teacher utilizes a play-based teaching approach. This would still require intentional planning on the teacher's part by providing appropriate materials for students to interact with to accomplish planned learning standards.

Teachers who are interested in implementing play-based learning to help increase student engagement by decreasing behaviors will need to do their own research and know their students social-emotional and academic abilities (Chigeza & Sorin, 2016). When implementing play-based learning the teacher must also know their own learning standards, so that they are able to recognize when students are completing standards during their play. Play-based learning can

have positive implications when it is done by teachers who are knowledgeable in the pedagogy

and intentionally plan out the way their discovery time will be used for students.

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Appendix A

Behavioral Data Collection Document

Date: _____ Time: _____ Theme Focus: _____

Behavior:	Boys:	Girls:
Blurting:		
Bothering neighbor:		
Laying on the floor/not paying attention:		
Off task:		
Disruptive to Class:		
Teacher Redirect:		
Other:		

Anecdotal notes from recorder:

Date: _____

Student Name	Standard observed
Elijah	
Kaden	
Lola	
Franklin	
Justin	
Jocelynn	
Jose	
Amelia	
Ian	
Boden	