Implementing the Project Approach in an Inclusive Classroom: A Teacher's First Attempt With Project-Based Learning

Stacey Alfonso

Stacey Alfonso was teaching in an inclusion preschool in New York City, serving children with a range of special learning and developmental differences, when she conducted this research. As she strove to embrace the child-centered inquiry that is at the heart of the project approach (PA), she struggled with general expectations within her school culture that curriculum and instruction be teacher-directed, instead of cocreated with the children. Her teacher research makes a valuable contribution to the literature because she provides clear and believable examples of how PA worked for her children with special needs, as well as the challenges she faced due to the newness of the approach, her lack of mentors, and the varied learning strengths of the children. Stacey is especially effective in communicating the voices and work products of the children, showing how they are fully capable and eager to undertake inquiry and direct their own learning. Her trust in the children and joy at their discoveries provided a turning point in her career that informs her current teaching in a forest school.

—Barbara A. Henderson

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One of the biggest challenges I faced during my years teaching in an inclusive prekindergarten classroom was differentiating instruction. I was constantly searching for methods to engage all children because having children with such a wide range of abilities and needs required me to offer varied outlets for learning. My school held to a theme-based curriculum with a strong backbone of structure to guide classroom activities and children's learning. I held to this as well, until, as I gained experience as an educator and learned more about child development, I began to question what I was doing and to seek alternative methods.

I wanted the children in my classroom to be motivated, authentically engaged, and excited to learn. I wanted them to take hold of their learning and drive their own experiences. While I have always believed that young children learn best through hands-on learning and have striven to make that a strong part of my classroom, I felt that their learning experiences should be more intimate and personal than I had been able to provide using a teacher-derived curriculum. I felt this could be best accomplished in an open-ended environment where children are free to explore and follow their own interests. But how could this be done within my school's current setting? How could I create such a shift in learning experiences without falling into chaos and complication? I found my answer when I discovered the project approach.

The literature I read presented a pedagogy that would motivate and engage children with a diverse range of abilities, allowing them the freedom to explore their own interests yet still providing enough structure to fit into my school's current culture (Harris & Gleim 2008; Beneke & Ostrosky 2009; Katz, Chard, & Kogen 2014). My research question for this study was,

> How can I implement the project approach within my inclusive classroom in a preschool that has a history of structured, teacher-driven curriculum?

Review of literature

John Dewey was among the first to suggest that one of the best ways for children to learn is by planning their own activities and implementing those plans, thereby providing opportunities for multilevel instruction, cooperative learning, peer support, and individualized curricular goals and learning experiences (Harris & Gleim 2008). Today, many teachers find that project-based learning supports children's self-motivation (Yuen 2009; Beneke & Ostrosky 2009; Harte 2010). Some see it as particularly successful in reaching a diverse range of interests and abilities (Harris & Gleim 2008; Beneke & Ostrosky 2009; Harte 2010). Others appreciate its focus on and enhancement of problem-solving abilities (Yuen 2009) and critical thinking skills (Brewer 2010). More broadly, many educators see the project approach as empowering because children are active participants in shaping their own learning experiences Harris & Gleim 2008; Harte 2010; Helm & Katz 2011.

Project approach: A brief overview

The project approach seemed to be a good fit with my goal of finding a new way to engage and intrinsically motivate the children in my classroom while meeting a wide range of needs. My research also suggested this approach would produce a well-organized curriculum and would be, seemingly, straightforward to implement. The project approach involves an in-depth investigation of a worthwhile and interesting topic developed through authentic questions (Helm & Katz 2011; Beneke & Ostrosky 2009; Mitchell et al. 2009; Katz & Chard 2013). Inquiry is a major emphasis, and so children focus on finding answers to their own questions (Harris & Gleim 2008). The teacher's role is to help children become responsible for accomplishing their work, to guide children to document and report their findings, and to provide children with opportunities to make choices along the way (Katz & Chard 2013; Katz, Chard, & Kogen 2014).

I was encouraged that the project approach guided teachers to use a specific three-phase design and hoped that this structure would ensure compatibility with my school's current culture. During phase one, selecting a topic, teachers build common experiences for their class (Helm & Katz 2011), talk with children about their personal experiences, have discussions with the children in groups (Yuen 2010), determine children's interests (Helm & Katz 2011; Katz & Chard 2013), and help children organize ideas and articulate specific questions as a topic emerges (Mitchell et al. 2009).

Phase two, data collection, emphasizes meaningful hands-on experiences and is when children conduct the bulk of their project investigation. Children are researchers, gaining new information as they collect data to help answer their own questions. This phase of investigation takes place through direct and authentic experiences such as field trips, events, and interviews with visiting experts (Harte 2010; Katz & Chard 2013). Children can also gather data through secondary sources when relevant, including books, photos, videos, and websites.

Phase three, the culminating event, is a time to conclude the experience and usually includes "an event or activity that summarizes the findings of an investigation" (Mitchell et al. 2009). The children's role continues to be central; the class often holds discussions on what they have learned to create a plan for sharing their insights and discoveries (Harte 2010).

Methodology and research design

After reading extensively about the project approach, I felt ready to implement it in my classroom.

Setting and participants

I conducted my study in a small private preschool on the Upper West Side in New York City. The school has a decades-long history in the neighborhood, and families have come to trust and love the educators there. The school's traditional curricular model of teacher-driven, thematic-based learning is also well established and, as far as I know, had not been previously challenged or adapted.

Study participants included 13 pre-K children, my two coteachers, and myself. Children had a diverse range of abilities. Seven children had significant sensory processing issues, two had severe cognitive and language delays, and four had mild language delays and/or mild sensory processing issues. Most children who enroll at the school can attend and participate independently, although some require one-on-one support with a therapist.

Data collection and analysis

Throughout the study, I collected and analyzed data through field notes, a reflective journal, children's work, and anecdotal records that included photos, videos, and audio recordings. Field notes were my primary source of data, which I used to provide a day-to-day recollection of how the project-based curriculum affected the children. The Teacher Notes app on the iPad and iPhone helped me collect and analyze the field notes. I kept project planning journals using a notebook and the Evernote app on my iPad. These digital tools provided me with flexibility. Because they were accessible via iPad, iPhone, or computer, I was able to take ample notes and continually reflect upon my plans and implementation.

I collected work samples from the children of their writing, drawing, and artwork. The work samples were helpful in assessing progress and became an additional source for documenting children's growth in their participation throughout the project. Finally, I used videos, audio recordings, and photographs to document children in the process of working.

At least weekly, I read and reflected on my field notes to identify emerging themes. At least twice a week during my prep time I reflected on my journal in Evernote to help with planning. Additionally, I continually reviewed and organized children's work using Teacher Notes and listened to and watched audio and video recordings as they accrued, noting themes such as children using research terms or working independently to find answers to their questions.

Organizing and maintaining this ongoing analysis helped me

tremendously when it was time for a formal, summative analysis of my data. Using Teacher Notes, I was able to pull up applicable field notes and data sources in many different arrangements. I then printed out the notes and sorted them by hand, which provided me with a means of discovering the themes that best captured the scope of my findings.

Findings

As I had hoped, I saw the children happily engaged and enthusiastic about learning as we developed our project—a study of the neighborhood. However, the journey also came with challenges and surprises not recorded in the literature I had reviewed. My findings are organized into three themes: (1) children as researchers, (2) learning and growing through research, and (3) challenges with the culminating event.

Children as researchers

To allow the children to get to know their new school and to provide some practice with research skills, we began the school year with a mini teacher-led project about the school before starting our formal project. My coteachers and I introduced the words *research* and *investigate*. Soon, the children adopted this new vocabulary. For example, a question about our school kitchen led a child to excitedly report, "I investigated the kitchen, and I found ice cream!"

I found that children responded well to my intentional efforts to honor their questions, including those that were not directly related to the project content at hand. For example, shortly after starting our neighborhood project, a group was working on a craft using glue sticks. One girl asked, "Why are there lines on this glue stick?" I took her question seriously and responded, "I don't know, let's find out." She was completely engaged from this moment, and we made a plan to research her question. We decided to open her glue stick and look inside. She hadn't expected me to embrace her question, and certainly not by suggesting a firsthand experience of discovery in which I allowed the destruction of the glue stick to honor her curiosity.

After a couple weeks, I found that children started to use the research vocabulary and inquiry approaches more independently. For example, we read a book and then discussed the similarities and differences between our neighborhood and the one in the book. One girl stated, "We don't have a laundromat, I think. We don't have it here because my mommy does it at home." Another girl disagreed. Then a third child said, "We can take a walk and look." I was elated to find the children's independent conversations included a foundation on inquiry. The emphasis we had placed on helping children understand that they themselves could find answers to their questions had already made a difference. Thus, when this child suggested we go look for ourselves to see if our neighborhood included a laundromat, she exhibited an understanding of how to investigate a question for herself.

In addition to finding answers from firsthand experience, the children learned that they could find answers from books. They initially needed guidance and leading questions to help them find secondary sources, but their abilities developed over time. For example, the children wondered what vehicles were around the neighborhood. In mid-September, a group of children sat in a park and tallied the vehicles they saw, including cars, taxis, buses, bicycles, trucks, and ambulances. Upon returning from this research endeavor, a child wanted to build a bus from clay. Without a teacher prompting, a friend of his went to the bookshelf to get a book that depicted a bus. They looked at the book together to understand the parts of a bus and then recreated them with clay. This shift was important, as it was becoming clear that children were conducting a form of research and doing so independently. Indeed, beginning in September, research had already become an important part of our classroom, and the children's skills and range of approaches only grew throughout the fall.

Learning and growing through research

As much of the literature points out, an important aspect of the project approach is providing opportunities for children to participate in hands-on, meaningful experiences (Harris & Gleim 2008; Harte 2010; Helm

& Katz 2011.) What I found is that the children had continuous opportunities to learn and grow in all developmental domains as they were meaningfully engaged in the project that they had helped shape. Children investigated by taking teacher-organized walks in the neighborhood to answer questions that arose during casual conversations or teacher-facilitated group discussions. We avoided answering the children's questions for them and used our frequent walks to allow children to find their own answers and to build their inquiry skills.

One instance in which this inquiry was evident was when two girls independently extended an activity to create a big drawing of our neighborhood. The children's initial goal was to determine whether the neighborhood contained things like signs, fire hydrants, specific businesses, and trees, and we were able to verify those questions on one of our walks. After the walk, the class collectively summarized what we had found by completing a checklist we had previously created. When I made the list available so that the children could add drawings of things they had seen on our walk that were not included on their list, the two girls took this activity to the next level. They began making little drawings on the chart, and then, realizing they were going for something bigger, they turned the paper over to "draw our neighborhood."

This child-initiated task led to opportunities for many aspects of development and learning to take place. As the girls discussed which stores were in our neighborhood, they collaborated and used their language skills. Fine-tuning their social skills, they negotiated who would draw each part of the neighborhood. As they remembered details of the neighborhood and objects they had seen, they were using cognitive recall skills. They used fine motor skills as they drew with detail and precision. When they were finished, they proudly shared their drawing with the teachers and their classmates, which was a wonderful social and emotional opportunity.

Another great example of learning that formed during our project was the children's growing interest in the scaffolding they had observed around buildings where construction and repairs were taking place. After an early walk during which we had seen a nearby building surrounded with scaffolding, one boy returned to the classroom and enthusiastically drew a picture of the "worker building," along with the scaffolding. On our next walk, we paid close attention to the scaffolding and encouraged the children to touch and explore it closely. The next day, that same child who had drawn the worker building created buildings with scaffolding all around them in the block area. He talked with a peer as they worked collaboratively on the block structures, and they both incorporated the new vocabulary word *scaffolding* correctly. They balanced the blocks and discussed symmetry as they completed their structure. Weeks later when we discussed how to make a model of our neighborhood for our culminating event to showcase what we had learned, the children noted that we would need scaffolding because "we have a lot of it."

I found that active hands-on experiences common to the project approach also helped some

children stay on task. One child had a great deal of enthusiasm and eagerness to participate, but it was challenging for him to contribute successfully and stay on task when he was in the classroom. This boy loved our research walks through the neighborhood and was able to stay on topic as we discussed the buildings while he was touching and looking at them. For example, he made many on-topic contributions to conversations as we peered into store windows. He was even able to produce a drawing of the school and to describe it by saying, "This is our school. There is a top and a door and a window." The drawing was one of the most detailed he had ever created, and he completed it right after we had investigated the building in which our school is located.

Challenges with the culminating event

Throughout our study, the children showed excitement as we went on our research walks, and they were consistently focused and serious when working in the classroom. It became clear, however, that we should begin to wrap up the neighborhood study when, in late October, the children's interests shifted toward leaves and a nearby field where they could run through the gathering piles. They were beginning to be less interested in finding out about our neighborhood, and I knew that to keep true to the project approach method, we should conclude our study and share what the class had collectively learned. However, the culminating event presented some major difficulties I had not anticipated.

When I suggested the idea of concluding our project to the children, they showed little to no interest. Forging onward, I began a class discussion by saying, "We learned so much about our neighborhood, it would be wonderful to share this with the other class, the administration, and even your parents." When I asked for ideas, I received a carpet full of blank stares. One girl responded, "I don't know." When I mentioned that parents would love to learn what we had been doing, another child responded by talking about his family. Finally, after much teacher prompting, we concluded that we should build a model of our neighborhood and have their families come in to see it.

The next day I held a short planning meeting with the children to figure out how we could build our neighborhood. I brought out materials for children to consider, including pipe cleaners, paper plates, straws, streamers, boxes, and drawing materials. I hoped that this variety would give them something concrete to work with to ignite their ideas, but the lesson seemed forced and their engagement was not authentic. One child said, "We need a lot of buildings," yet could not generate suggestions on how to make them. A girl noted we needed to make bicycles, which we had seen and talked about in discussions on vehicles in the neighborhood. When I asked her how we should make them, she said that we should draw them, and this then became her default response for how we should represent all aspects of the neighborhood. It was also hard for the children to focus on the idea of the culminating plan. For example, one boy spoke only about the dinosaur bones we had seen at the American Museum of Natural History.

Later in the week, I began working one-on-one and in small groups with the children to expand on and execute some of their admittedly sketchy plans for our neighborhood display. One boy told us we needed trees in the neighborhood. After talking one-on-one about trees, we made a plan to create trees by using paper towel rolls for the trunks and tissue paper for the leaves. With support, he was able to successfully and proudly participate in constructing the trees.

Working mostly in small groups throughout the week, we ended up with a complete and attractive neighborhood model built inside one of the sensory tables. Our end product was nice, but the process was not authentic; it had required so much teacher involvement that it felt rather forced.

Why was the conclusion of the project so difficult for us? According to project approach literature, the culmination is a time for the children to be creative and involved in the planning process (Harte 2010; Katz & Chard 2013). I had read about many successful culminating events, yet I encountered complications when culminating our neighborhood study. Perhaps I waited too long to strike, and by the time I realized we should plan our culminating activity, the children's interest in the neighborhood project had already faded. Maybe the idea of a culminating event was too abstract for this group, particularly since I was the first in my school to try the project approach, and so we were without examples—either as displays or as events that the children might have experienced. Might it have been the mix of children's abilities in this inclusion class that made the student-led planning of a coordinated final event harder than I expected, or that the literature describes? Whatever factors played into this difficulty at the end of the project, I found that with my group of children during that year and as a novice with the project approach, the planning and execution of the project's culmination was challenging and a bit frustrating.

Discussion and recommendations

Overall, this teacher research study provides an example of a teacher attempting the project approach independently in a small pre-K inclusion setting without formal training or ongoing support in this curricular method. As a result, I faced some resistance from administration and doubt from colleagues because they were unsure this approach would be appropriate for some of the children with special needs in our care. What the experience revealed to me is that moving from a completely teacher-derived curriculum to an emergent curriculum such as the project approach is a big shift. The project approach is exciting, meaningful, and can be very engaging for children, but it would have been helpful to have a mentor to guide me through the difficulties and questions I faced alone.

Most of my experiences mirrored what I had come to understand about the topic. As the literature suggests (Beneke & Ostrosky 2009), I saw the children get excited about learning, based on questions they were asking and topics that interested them. Also in line with the literature, the children showed strong motivation to conduct their own investigations to find answers (Beneke & Ostrosky 2009; Yuen 2009; Harte 2010.) Further, I felt the project was an empowering experience for the children. When we used the children's questions to ignite a study, or when we simply followed through on their questions and helped them find answers, they felt respected and proud. The children now know they have the power to find answers and conduct research. They know that not just teachers and other adults can answer real questions; they can, too.

What did not fit with what I had learned from the literature was my experience with the culminating event. This task was far more challenging for my group of diverse learners, although I had been under the impression that the project approach provided great opportunities for a diverse range of learners (Harris & Gleim 2008; Harte 2010). Overall, I think the children in this class would have benefited from more structure, particularly as we arrived at the culminating event. Therefore, I believe when concluding a project within an inclusion classroom, I need to find a better balance between structured and child-initiated ideas.

Conclusion

The literature that I read to educate myself about the project approach was extremely positive and talked only of successes. I'm glad that after conducting my study I can provide a well-rounded, honest example of the wonderful influences the project approach has had on my teaching while also reporting on the challenges I encountered. I believe there are remarkable benefits to having children learn through inquiry, investigation, and research.

Since conducting this research, I have moved to a new city and work in a very different learning environment. Currently, I teach at a forest school, an environment that is immensely hands-on and full of inquiry. I constantly find moments of potential investigation and research for the children, and because of my teacher research with the project approach, I am able to capitalize on these moments and turn them into inquiry-based learning. The most powerful learning I have gleaned from my work with the project approach is that when children learn to inquire and to act on those inquiries, they are learning how to learn. They are learning to ask questions and to seek answers. Children can become empowered by their questions, interests, and thoughts. It is my hope that, through this empowerment, children are becoming lovers of learning—a love that will stay with them throughout their lives.

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