You implemented project-based learning (PBL) in your first year of teaching. Some might see this a daunting challenge for a novice teacher. What were some of the pros and cons you considered before embarking on a PBL approach?

Integration of two PBL projects into my elementary science curriculum, especially in my first year of teaching, was indeed a challenge, but I knew it would provide my students with a critical educational opportunity. This was particularly important to me as it fell directly in line with my personal teaching philosophy and commitment to having a student-centered classroom. However, with excitement also came trepidation in terms of the process of planning and executing the PBL projects. One of my main concerns was that...
PBL could compromise the sound classroom management practices I had established in my second grade classroom. So I dug a little deeper into my PBL research before proceeding.

How much instruction related to PBL did you receive in your teacher education program?

Throughout my teacher education program, I was fascinated with the innovative PBL philosophy of the school district to which my program was attached. I took advantage of as many summer professional development courses as I could, focusing on project/problem-based learning in order to gain a better understanding of how to implement PBL, especially in the science curriculum. I also sought advice from the school district’s science curriculum coordinator as well as fellow educators who had successfully implemented PBL in their classroom. I fell in love with this approach and successfully implemented two PBL experiences in my first year of teaching, one for the ‘force and motion’ unit and one for the ‘life cycle of a butterfly’ unit.

In implementing PBL for the first time as a beginning teacher, were there more experienced teachers using PBL in your school that you could turn to for advice? What other resources (inside and outside the school) did you draw on?

While I relied on professional development opportunities, online research and resources, and advice from seasoned educators throughout my school district, my greatest source of encouragement and guidance came from my students! I strongly believe that a successful PBL project encourages student choice. While my second grade students did not necessarily require choice in everything they did throughout their PBL experiences, allowing them to make decisions in
some capacity did provide them with a sense of ownership over the PBL process and their overall learning.

In your Remind blog (http://blog.remind.com/author/allison-spratt/), you write that you were "enthralled with the innovative philosophy of my district." Can you expand on your school district’s innovative philosophy as it relates to PBL?

The Northwest Independent School District strongly believes in 21st century learning. We strive to prepare our students to succeed in key areas, including literacy, digital skills, critical thinking, problem solving, collaboration, and communication. An underlying goal is to effectively use technology to prepare students to be successful, productive citizens capable of critical thinking and problem solving.

My school district also believes that the use of instructional technology tools can extend the reach of students and improve their natural capabilities. Our yearly Techno Expo event serves as a showcase where students throughout the district, from kindergarten to grade twelve, demonstrate the ways in which technology takes their learning to another level. Students have the opportunity to showcase their work to a broader audience and engage the community in their learning.

Can you summarize one of the projects you completed with your second grade students?

My first PBL project was for the ‘force and motion’ unit. Our driving question for project was, “How can we, as fitness engineers, design a field day activity that utilizes force, balance or motion to enhance our fun & fitness?” To prepare for the project, I created a real-life scenario for my students.

Below is the overview for the project that I wrote up as I was planning the project:
Project Overview: The learners will participate in a variety of activities through which they explore various forms of force and motion such as sliding, rolling and spinning. Students will then research various types of games/activities that utilize force and motion. Following this, the learners will design and develop a model representation for a field day activity/station. PBL teams will present their designs to their homeroom classes and students will then vote on a winning a design. Each homeroom winning design will be presented to the school’s physical education teachers and older students, followed by a campus wide vote. The winning design will be constructed for use at ‘field day.’

What were the project experiences you found to be most satisfying and enjoyable?

I was thrilled to see my students take control of their learning while working alongside and in collaboration with each other. Watching them develop lifelong learning skills related to collaboration, attentive listening, justifying their thinking, and being able to express their thoughts, ideas and concerns successfully was priceless.

What did you find to be the most challenging aspect of implementing PBL as a beginning teacher? How did you go about addressing this challenge?

Although I am a huge advocate of PBL in the classroom, I am not oblivious to its inherent challenges. The biggest challenge I faced implementing PBL as a first year teacher was fear of the unknown. What if the student teams I form do not collaborate effectively? How will I effectively assess each member of the PBL team on the quality of their project outcomes? If a team member misses a particular activity or opportunity, how will I...
ensure that he or she makes up for it? The questioning and second-guessing proved overwhelming at times, but I stuck to it, remained organized and on track, and, most importantly, remained the facilitator of their PBL experiences. I never lost sight the important oversight role I had as their teacher.

When it came to effectively assessing each member of the PBL team, I consistently monitored who did what by assigning each member a specific job. I also kept a written record of that assignment. To scaffold this, I had each second grade student log what they did at the beginning and end of each lesson/activity in their participation log. This encouraged the students to remain motivated as productive team members. It also encouraged them to actively consider the changes they needed to make to their work habits whenever they fell off track. I also counselled my students on an individual and team basis in order to ensure ongoing learning.

What are some of the lessons you learned implementing PBL in your first year of teaching?

First, drawing on the advice of many seasoned PBL educators, I knew that establishing clear PBL norms and expectations for my student teams would be crucial to successful collaboration and project outcomes. It was extremely important for me to remind students daily upon commencing their PBL activities of these norms and expectations. My second grade students quickly learned that they were expected to work with all of their peers. We successfully established a culture of student collaboration. I introduced and implemented the PAL (Partner and Learn) concept extensively in my classroom during the first twenty days of school and this positively influenced the ways students learned with and through each other.
Also, while I am a strong believer in student centered classrooms and student voice and choice, I quickly learned that my students do not necessarily need choice in everything they do, including choosing the team members they will work with or even their job duties. In my PBL units, each member of the team was assigned a job. During my first PBL unit (‘force and motion’), I allowed the students to not only choose who they teamed up with, but also what job position they would hold. This was not a very productive use of time. I should have specified the team memberships, as well as each student’s specific job duties, based on my knowledge of each child’s strengths. This was a lesson learned.

How are you implementing PBL differently in your second year of teaching?

I am focusing more on the pre-organization of the overall PBL project. This includes incorporating various independent mini-lessons that will enhance the overall PBL experience, as well as revising the post-PBL student reflection. I have also chosen to spend more time helping students reflect on their PBL experiences, including what they have learned.

I continue to spend significant amounts of time reflecting on the PBL feedback I received from last year’s students, fellow teachers, and the school administration. I have taken this feedback into account and made changes and additions to my PBL plans for this year.

How important was communication with parents during your first year of teaching, especially in relation to PBL? What did you do to keep parents informed and on side in terms of PBL?

Consistent communication with parents was key. In both of the PBL experiences I led, I routinely used social media to
communicate with parents. For example, I used Twitter, tweeting 'in the moment' throughout the PBL process. Students were so accustomed to this that they informed me when they felt a ‘tweetable’ moment was occurring or had just occurred.

When it came to the 'lifecycle of a butterfly' PBL unit, social media (care of Remind) literally saved the entire PBL experience. It was on a Saturday that the butterflies began to emerge from their chrysalises. I happened to be in the classroom preparing for the upcoming week when I realized this. I panicked. Knowing that the students had worked so hard to get to this moment and that the major component of the entire PBL experience would be missed by them, was of great concern. I quickly came up with a solution on the spot. Having used Remind on numerous occasions since the beginning of the school year to communicate with parents, I immediately sent out texts, including photos of the butterflies emerging. I then frantically set up a webcam, streamed a live feed and sent the link to the live feed out via Remind, creating a virtual weekend classroom. As the parents had been so accustomed to receiving my Remind communications, and had been following the entire PBL experience via Twitter and weekly newsletters, they quickly took control as facilitators, which resulted in 95% of my students having the opportunity to view this transformative event as it occurred. Social media technology and the communication patterns I had established with parents saved the day.

Additionally, in both of the PBL experiences I facilitated, I provided at home extension opportunities in my weekly newsletters. This helped families to stay connected to the projects. For the ‘force and motion’ unit, parent involvement was also key, especially during the final phase.
There is plenty of PBL advice online. What specific advice would you offer novice teachers who wish to try out PBL in their first year of teaching?

If there is one piece of advice that I could offer novice early primary teachers, it would be to alternate teaching techniques throughout the PBL project, especially a teacher’s first one. In my first year of teaching, I quickly realized that alternating true PBL collaborative ‘project days’ with more traditional independent student learning helped to establish a structured educational atmosphere that was particularly beneficial to the overall classroom climate.