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Celebration of Learning 2010
Kindergarten “Number Sense” Program
I have thoroughly enjoyed my involvement in the NumberSense Project this year. I feel that I have grown as a teacher, and have learned so much. My focus student is one of the most interesting students I have come across in my time in the classroom, even if I’ve only been in a classroom for a year. My student, Ashley, has a language delay. Ashley had been in the kindergarten classroom the year before, and had passed, but due to her performance in the 1st grade classroom, was back in kindergarten. Her family was debating having her evaluated by specialists at the University Of Iowa Hospital. When I first began working with Ashley, in October, she was speaking in three word sentences, and either parroting back what you said, or toddler talking. I would ask her to count objects for me, and she would simply stare. When I prompter her with the number 1, she would simply say, “1” and stop. When she reported events in her life to me, it would be in simple sentences. For example, one day when it was snowing, she came up to me and said “Me make snowman.” From this I interpreted either that she had built a snowman, or that she wanted to make a snowman. With language being our biggest barrier I had to assess how Ashley language affected her academic ability and achievement.

Our classroom teacher also informed me that Ashley went to resource, and was struggling in all subject areas. She did not have a developed IEP, but she had identified as a student to watch. Even though she had a full year of kindergarten she couldn’t count past 20, and couldn’t recognize numbers after 10, and showed major inconsistencies with her abilities. She had little expressive speech, and word recognition, so was unable to answer questions or understand word problems.

The three of us, Julie Joradan, Sara Ashby and myself decided it would be best to assess her to get a better sense of what had been described to us. Our first assessment showed almost
exactly what the teacher had explained. There were two other things that caught our attention as well. First, Ashley did not have cardinality, in other words, she could not restate the number of objects she just counted, without recounting. For example, we had her count out a pile of 10 and when we asked her how many there were, she recounted, every time. She also couldn’t recognize any of her numbers, and when asked to count out a pile to a target number, such as 10 she would count past and didn’t notice. Even with the three of us she showed amazing inconsistencies. One day she recognized numbers up to 15, the next only to 5. We discussed each of the students who needed support, we decided I would be the one working with Ashley, since I had some strategies I wanted to try.

The first thing I had to master was to figure out how to communicate with Ashley. Since Ashley struggled with verbal communication, I couldn’t assess her understanding well. After discussing ideas with the classroom teacher, I learned that Ashley like to color and trace, because of this I decided to give writing a try, and our first few lessons were conducting almost exclusively on whiteboards. I had her draw the numbers as I said them, or draw that number of circles when I showed her a certain number. This was fairly successful she was able to write the numbers in word and numeric form. After a few lessons of this we had found a way to communicate and Ashley was making exponential progress she could circle groups of a given number, and draw a certain number of dots. I used this method to help solidify her basic facts, and eliminated the inconsistency issues we found when we assessed. I would also say the word for the number when it was written and she began to parrot the numbers back to me. I slowly moved the whiteboard away and she could tell me the basic facts verbally. Once the numbers 1-20 were solidified to the point where she could say them out loud and count to the number 20, we began work with counting out set number piles. The only way I could think to do this was by
placing my hand on hers when it came to the number we needed, and saying “Stop!” After a few times of this, Ashley would look at me and yell “Stop!” when she got the number she needed. The first few weeks were successful and she began to stop herself from counting past, and it seemed that nothing could stop her.

We began to work with numbers greater than 20. Our first challenge was the number 21, which she mastered with no problem. She could successfully count out 21 and recognize it. We progressed through numbers up to 30 quickly, and solidified counting out piles of 21. But, as soon as we made it up the hill, we fell right back down. One day while working Ashley, I noticed that she couldn’t recognize numbers past 15, or count out piles higher the 10. Ashley was very frustrated. She overcame these issues though, and soon we were moving along, and on to the number 40.

Right as we reached 40, it was time for the Augustana College break, and I left very concerned about where Ashley’s memory would be when I returned. I soon saw that she had continued making progress while I was away, and we were able to start working on counting by tens. Counting by tens was our stepping stone to counting to a hundred. It was around this time that Ashley, when asked to count would always start with 2, or the next number in our counting chain. It took me a while to realize this was because she was continuing off of what I said. So if I said, “We are going to count by 10s to 100” “10…”, she would jump in with, “20.” She had the concept, but wasn’t doing the whole number set. I realize this may be due to her difficulty understanding directions, so I began to prompt her just by the question and not the first number in the sequence, and on the 100th day of school, she finally counted to 100 by tens perfectly. You could see the pride on her face, and how excited she was she had done it. She was able to put a sticker up by her name, beaming the whole time!
With this success I made one of the biggest mistakes a teacher can make. I assumed that Ashley knew all of the numbers in between her tens. I soon found out she did not. I noticed this because Ashley would frequently invert her numbers when she saw them. For example, 21 was 12 and 31 was 13. So we went back to learning all of our numbers. The unusual thing about this was, Ashley knew the pattern for the numbers so $x0,x1,x2,x3,x4,x5,x6,x7,x8,x9$, but, she could not figure out what came after $39,49,59,69$, etc… even though she knew the order of tens. Of course this happened right as we went on break, only to be followed by the school’s spring break, which occurred in early April so I was unable to work on this.

When I came back Ashley had still made progress, with her language and expressive speech and she even read me a book that she had written. I asked her to count as high as she could and to my amazement she counted to 90 successfully, and would have made it to 100 successfully if she had not confused 91, 99, 92. We worked on sorting out the number scramble, and on April 6th, Ashley slowly, but surely counted to 100! Seeing Ashley’s face when she reached 99 correctly, she knew she did it. She got another sticker, and counted to 100 about three more times after that. While this took time away from our lesson, it defiantly made me sure that she was able to count to 100.

After she successfully counted to 100, I decided it was time to work on one more which follows the sequence in the Trail Blazers curriculum, and because one more involves the student being able to understand number order. We are still working on this concept. Ashley cannot express what more is, or choose a pile with more. The concept eludes her, and I cannot find any way of explaining it to her. I have tried using manipulatives, pretending its piles of cookies, money, teddy bears, age and nothing works. She does not select the pile that has more. The strangest thing is she can tell me what is one more than numbers, when given them in order. I
suspect this is because she is just counting, as she pauses before giving an answer and I can see her lips moving. However, being able to count from a number other than one is still a huge accomplishment. This did not seem to be as rooted as other skills she has though, since she still will count to check her answers.

Watching Ashley progress has been incredible, not only because of the amount of progress she has made in the subject, but in her confidence level as well. I am very glad to be a part of Ashley’s development. Ashley put forward such a huge amount of effort, and really did a lot of the work. The fact that she wanted to learn, and was willing to try is what made her so successful. If she had not wanted to learn, or to get it, I don’t believe that I would have seen these results. I feel that I also have learned a great deal from this experience. Looking back on my abilities when I started the Kindergarten NumberSense I have developed so much as an educator and as a person.

My involvement in the Kindergarten NumberSense Project was one of the most valuable experiences of my life. Not only did it help me figure out my career goals, but it also helped me develop as an educator. I was very apprehensive with accepting the offer to be part of the Kindergarten NumberSense Project. I was unsure of my abilities to work with students of this age, and my disposition in this situation. I also felt totally unprepared. That was 8 months ago; I now can walk into a classroom and feel confident. My classroom management, respect for routine, and overall disposition have been completely changed thanks to my involvement in this research project. I think the biggest skill this project has helped me develop is my confidence. Before, I never knew if I was doing a good job, I often second guess myself, and I feel that I appeared quite unprepared. I wasn’t unprepared; I was just terrified. It may seem ridiculous that five year olds can scare you, but trust me, they can. You try walking into a room where every
single child wants your attention at once, and they always talk over each other. There is organized chaos, but by that time you are too overwhelmed to even see it. Voices reach a manageable rumbling level, but are filled with hints of, “share my crayons,” or “that’s not yours.” You step into that room and become a role model, an entertainer, and an educator. Being an education student my goal was obviously the latter. However, I had to achieve the first two to reach the third, which was a daunting task. There was a skill set somewhere inside me though, that somehow was awakened.

Learning how to relate to others, helped me become a teacher this year. Whether my student lost a tooth, or got a puppy, or learned how to tie their shoes, I was able to be there. To adults those are not big issues, but for children it’s the greatest thing that ever happened. I took joy in their celebrations, and sadness in their sadness. The empathy these children helped me develop is remarkable. You walk into a classroom completely terrified, and they know you are, but somehow you learn about who you are meant to be. It’s almost indescribable; the way children think and invite you into their world. Their smiles turn your day around, and quite often get them out of trouble. But you learn from them, and I don’t mean learn like reading a textbook learn, you learn how to relate to others, and how to care. The compassion they show each other, and love they show for you, is phenomenal. If we could all love like that, it would be a better place. I believe that their love for me woke up the empathy that I have always wanted to show as an educator, and as a person. By being able to related to them I began to learn what they needed, and how they needed to learn. As seen with Ashley, I had to get to know her to be able to reach her, to get insider her head and help her achieve all that she has achieved this year. I’m so lucky to be involved in this project, and cannot believe it is coming to an end. Thank you so much for this opportunity, and for this chance to grow as an educator.