**Reflection Paper – Rosalind Ali**

Part I: Daily thoughts and reflections:

Wednesday, Day 1, July 9, 2014

Today I learned a lot…from how to create a twitter account, upload a picture and send a tweet, to joining a group on Facebook and starting to setup a Surface tablet. I would like to use the opening activity, taking a picture with your cellphone while exploring the environment that captures something unique about you and uploading it to social media to use for introductions with my students and staff this year. What a great way to incorporate technology into the classroom! I do want to propose greater use of cellphones and social media during school since it’s something the students have and it’s such a great part of their lives. This activity can be extended/modified to include images of math and science in their world. I also like the idea of assigning groups to be responsible to introduce tech tips to the class. This is also something I think students could do in the classroom—Task students to find STEM educational or productivity websites/tips to the class. Looking forward to the remaining sessions. I need to get used to sharing my thoughts, ideas and comments publicly—I’ve never been much of a twitter or Facebook fan of documenting my activities but the potential educational benefits of these tools are amazing.

Thursday, Day 2, July 10, 2014

Right now I’m kind of frustrated because we did a great activity where we were supposed to learn to shoot videos and post them to Facebook but maybe that was not the actual goal. My frustration is because if that was one of the learning objectives, I did not meet that objective because the activity is over and I still do not know how to post videos to Facebook. This experience really made me wonder if this is how my students feel at the end of some of my lessons and they don’t understand the objective of the day? This is something I’ll definitely be more mindful of this school year and I’ll share this experience with my students as an example of how they’re responsible for their own learning. I stayed after class today because I was determined to get that video posted to Facebook and students need to realize sometimes they have to put in additional time or stay after school for extra help or one-on-one assistance. Other than that, the analysis of webpage development/hosting sites was very informative and I’m looking forward to creating a professional portfolio on line using the latest technologies… I’ve been wanting to show the world the hundreds of pictures that I’ve taken of my classes and my work throughout the years and am happy to now have a forum where they can be displayed. I did learn to take pictures and videos and delete them from the SURFACE device…slowly but surely getting more comfortable with the new tablet.

The article “Disciplining the Mind” reassured me that my instructional practices are on the right track. Students must learn to apply their knowledge to solve problems—they must be taught to think. The suggestions how teachers can help students develop disciplinary competencies should be performed by every teacher. Giving students time to think through a variety of situations and apply their knowledge should occur daily so they can develop the “capacity to think like experts”. Inquiry based curricula lend themselves to developing the disciplined mind and I’ve seen students embrace this type of learning in my own classroom. The Connected Math curriculum allows students to think through situations in every lesson and I will continue planning integrated lessons with my Science teacher to provide problem solving situations that integrate multiple discipline*s.*

Friday, Day 3, July 11, 2014

I wasn’t in class for reflection time today—I had to leave early for my son’s Babe Ruth tournament game. During the game, my daughter and I came up with topics for my “world of wonder”. We started with baseball diamonds and ended up wondering about Vicks sinus liquid-caps. Need to write Dr.Wise (my principal) ASAP and tell her about all the wonderful things I’ve learned this week and start making plans for implementation this school year.

Monday, Day 4, July 14, 2014

My group was assigned the letter S or s so I went walking through downtown looking for the letter form “s”. This activity really forced me to take time to observe things around me in a different way. I stopped and stared at sidewalks, buildings, flowers, people, rain puddles, footprints, all kinds “of things. It made me realize how many things we miss because we don’t take the time to observe things around us. I remember thinking that people around me might be asking, “what’s she’s looking at” and I realized I didn’t care much about people watching me—that wasn’t as interesting as the letter forms and other things I was discovering by observing my surroundings. The term “long tail was new learning (nomenclature) for me and I’d like to learn more about these types of statistical distributions.

Tuesday, Day 5, July 15, 2014

So today started with world of wonder and tech tips and then I presented my demo lesson - the jumping jack experiment. It seemed to go well—everyone was engaged and completed the tasks—creating a graph by hand and using a web-based graphing tool. I’m looking forward to reading the feedback and incorporating the information in my e-book page. The rich discussion generated by team mate William’s lesson was awesome! His lesson touched on more than just math – it covered economics, consumerism, practical money skills, and social justice issues (is the minimum wage really enough to live on?) What a great life lesson for the students. Our technology activity – creating the step-video was our quick-fire activity for today was a good exercise in team work  I didn’t know what a step-video was but after a quick google search, I was well on my way. We brainstormed physics topics to use for the video and eventually settled on pushing a chair and watching it glide backward. After that, being forced to create a website was what I needed to stop procrastinating and get started developing my online presence.

The article “Understanding Student Weaknesses” really resonated with me. Being able to identify where students are confused or have wrong ideas about a topic and designing lesson plans that include how to identify if a student is struggling AND how to change their incorrect beliefs. In my math curriculum teacher guide, this information is outlined for every lesson and I’ve found it to be extremely valuable.

Thursday, Day 7, July 17, 2014

Today, I have a great feeling of accomplishment! I’m almost done with my e-book page, and learned a lot about creating webpages using Weebly (Thanks Candace!!!). I have uploaded pictures, video and edited images to my website and am realizing the value of using the webpage to highlight the work of myself and my students and communicate my professional activities to the world. My mind is churning now with new layout and design ideas for my webpage and it doesn’t seem as daunting a task as when we first received the assignment. I enjoyed talking to Punya and developing a Big Idea – “Reasoning with Numbers” however, I’m concerned about this choice and wonder if I need an idea that I can connect to something I’m truly passionate about – like music or baseball. I’m thinking I’d like to do something with shapes – maybe composite shapes and composite solids (these are also areas where my students struggle) hmmm, I’ll have to give this more thought. Looking forward to tomorrow!!!!

Friday, Day 8, July 18, 2014

Today began with a discussion of the “aesthetics of understanding” article. Each group member shared something related to understanding… it was interesting to hear everyone’s personal story around a time when something clicked for them … from the experience teaching in South Africa, to the tragedy/ivy league college story, everyone shared a story that conveyed a personal message and demonstrated their passion for touching lives through teaching. The Make activity was engaging and gave me ideas for items to request for this year’s Oppenheimer grant! Who knew there was a Make society and conventions for makers? These are great exploratory activities for children and their parents—I can see using some of these for Family STEM night (…. Notice I didn’t say Family Math or Family Science night). To close out the day, we spent time thinking through the “Explain IT” video assignment, taking pictures and video to be imported into movie maker (or some other tool). I really love the structure of this class---every time I feel that I’m nearing information overload, we’re given time to process and create and discuss our ideas and new learning with others so it doesn’t become too overwhelming.

Monday, Day 9, July 21, 2014

Another busy day full of new learning starting with a discussion of the Teaching That Sticks article. I enjoyed this article and look forward to purchasing the book. The key ideas outlined in the book remind me of the structure of connected math lessons and I can see why they’re effective. My concern is always having enough time for students to experience all the activities that make the content “stick” and how to get the same result when I’m short on time and have to modify lessons designed to learn from inquiry. Got lots done – finished two i-Images and gave considerable thought to modifying my topic for my Big Idea – need to incorporate how to modify existing curriculum to use more technology tools and use technology for online journals/homework in an effort to get more content to “stick”.

Tuesday, Day 10, July 22, 2014

Another productive day – finished my movie on graphing (pt.1) with Akesha and Kyle’s help. While making the movie I had several thoughts of how wonderful this tool is and how every teacher at Morton should be able to create movies and teach their students for engaging classroom activities. I found myself daydreaming about the movie maker professional development session– would it be all day, half day and how much fun teachers would have creating educational products for their classrooms. The nursery rhyme activity was a great activity to help reflect on and summarize all that’s been done so far and it’s another activity that would be very useful and engaging at a teacher PD. I also enjoyed hearing the share-out from the groups who discussed what their PDs would look like when they get back to their schools. I got a lot of great ideas for my own PD planning that I know I’ll have to facilitate in August! I would’ve liked to discuss more about assessment – even though the open ended assessments are time consuming to grade they are so informative… I can’t think of another tool that will give you that kind of insight to the thought processes of your students.

Wednesday, Day11, July 23, 2014

Where has the time gone? I’ve loved every minute of participation in this PD (even when it pushed me out of my comfort zone) and while I’m sad to see it come to an end, I’m excited about sharing everything I’ve learned with my coworkers, students and their families. The ideas about integrating technology into the curriculum were presented in ways that seem doable, and I don’t have that usual overwhelming/information-overload feeling that I normally have after such a long PD. I’m so looking forward to meeting with my instructional leadership team and planning lessons for the upcoming school year. I’m still thinking about the final title of my DreamIT project but I know I’m on the right track merging the ideas of reasoning with numbers and integrating technology into standard textbook curriculum materials. I’m grateful for the assistance of my STEAMboat team members, Bill, Jen, Alicia and Tasha and appreciate their willingness to help one another out whenever we needed, as well as the entire cohort—who would pitch in to help anyone in need. I also appreciate Akesha and Kyle’s assistance in helping me finish my movie-maker project…I wasn’t feeling so great yesterday but they patiently worked with me and helped complete the project. It’s been a joy working with Candace and of course, Punya, and I look forward to working on this DreamIT project throughout the year.

“What we do is not on the page… it’s not in the lesson plan”.

Part II: During the next six months of my career, here are a few key topics that will be important to me:

* Technology integration in middle school classrooms

My main focus in this area is increasing the integration of technology in all classes. Students attend a computer lab prep once a week and I’ve already met with the technology coordinator to discuss setting up classroom twitter accounts. We will co-plan lessons on popular web-based tools so students can use computer lab time to produce technology projects assigned in math, science or reading class. I suggested to my principal that we order a class set of Surface tablets and she did so without hesitation! During the first weeks of school, I will conduct professional development sessions for the middle school team to share technology integration methods learned this summer. My team is also evaluating educational management tools, such as Schoology, for use throughout the middle school. Teachers will need support and I aim to help them increase their knowledge of ways to integrate technology using popular tools that are engaging to the students. . For example, sharing comments via twitter, collecting cell phone photos related to subject matter or creating stop motion and explain-it-to-me videos. STEM PLC meetings will be the forum to support teachers through mini-pd sessions focusing on various technology tools and classroom implementation strategies.

* Staff PD - technology tools, STEM, 21st Century Learners

Another immediate focus will be Professional Development for my middle school team and the entire staff. I plan to host mini tech-talks inviting staff to reflect and discuss articles presented during the summer sessions—particularly those writings on 21st century learners. The entire team needs to understand that a different type of learner is now before us and we must revamp or replace educational processes that are no longer suitable for our 21st century learners. I’ve been tasked with presenting an opening activity when teachers return for 4 days of professional development in August. I plan to use articles presented in class such as “Learning From Creative Teachers”, “Lessons That Stick” and the articles that address how to engage the 21st century learners. I’ll also present activities from Second City Improv session.

* Students accessing content outside of school

The level of mastery required by Common Core Standards requires students spending as much time as possible thinking about and discussing academic content as possible. My students have a myriad of distractions outside of school and doing homework, studying, reading outside of school just does not happen. Sure, there are a few who regularly complete homework assignments but most – often 75-90% of students are not doing homework—missing out on hours of “practice”. I’ll be focusing on non-traditional homework and after school assignments moving away from paper based activities to technology based activities such as creating websites, videos, blogging, photo journaling, and social media. I’m still looking for resources that would allow my students to create a comprehensive electronic math journal to complement and/or replace the composition book journal that I’ve used in previous years. My goal is a 80% or higher homework completion rate.

* Student awareness of math reasoning in their environment; Students as expert problem solvers.

Math is in everything we do and students should be able to recognize the involvement of math in their daily activities. From buying chips at the corner store, to sharing candy, to playing outside awareness of math in their environment will improve their number sense, numerical reasoning, hopefully resulting in improved fluency and developing their ability to make connections across the STEM content areas. Starting in September, students will be required to document their activities and the math that’s used in a math journal, they’ll have assignments like “World of Wonder” where they’re required to examine their daily actions and write about the math – describe calculations, patterns, shapes, and describe the mathematical practices that they’re using in completing daily tasks. Students will report their findings using a variety of tech tools. Problem solving strategies and mathematical practices will be highlighted and practiced in class daily.

In today's world, technology is absolutely essential in the classroom, however, we don't want technology for technology’s sake because after all, there's an app for almost everything we need right? At the end of the day, technology has to make a difference in the learning and in the lives of our children. If somehow technology can improve those odds beyond just great test scores but where I am seeing greater interest and excitement about learning from my students, then technology will be a real win-win.

**Professional Development Resources/Planning Resources:**

Websites/Organizations/Magazines/Books:

Learn Zillion

Storify

NCTM

Software: audacity (audio editing tool) used to measure distance to the moon

Dynagraph (find it online)

Educreations (create khan academy like videos)

Remind (communicate with parents and students)

Maetbridge (google this)

Polleverywhere.com (send a text via cellphone to vote)

Web based graphing tool:

<http://nces.ed.gov/nceskids/createagraph/default.aspx>

[www.educationworld.com](http://www.educationworld.com)

Imove, Movie Maker

[www.edudemic.com](http://www.edudemic.com)

[www.teachervision.com](http://www.teachervision.com)