

## MTIP Nugget

### The Struggle is Real

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During this opportunity for reflection on the continuous process involved in the Math Teachers Inquiry Project (MTIP), it becomes clear that growth and development are achieved through perseverance. Sivananda Saraswati is quoted as saying, “The harder the struggle, the more glorious the triumph.” Thus failure, or not being satisfied with one’s current level of performance, should never discourage the learner but fuel them toward greater achievement. The struggle is challenging but rewarding; it is both never ending and fulfilling at the same time. The teacher inquiry projects are opportunities to indulge ourselves as learners and to grow and develop into our best selves as educators. This is an account of the journeys of two teachers on their quest to improve their practice through reflection and collaboration.

#### Finding Professional Successes When the Wheels Fall Off

##### Gary’s Story

Inquiry is a tool that will allow teachers to examine their own educational practices and work towards asking questions to improve student achievement. Reeves<sup>1</sup> found that if teachers are able to choose their own professional development opportunities, there is a measurable and significant effect on student achievement. MTIP has allowed me to venture into the inquiry waters and forced me to gain insight into my own practice.

##### *My quest.....*

For a long time, I have struggled with a certain aspect of my teaching that I really wanted to change but didn’t have any understanding of how to start. I believed that adding more student to student conversations into my planning would have positive effects on how my students made sense of mathematics. I decided that I would focus my quest around this principle and came up with the following: “*Engaging students to participate in effective mathematical conversations*”. Now, where to begin!

##### *The struggles....*

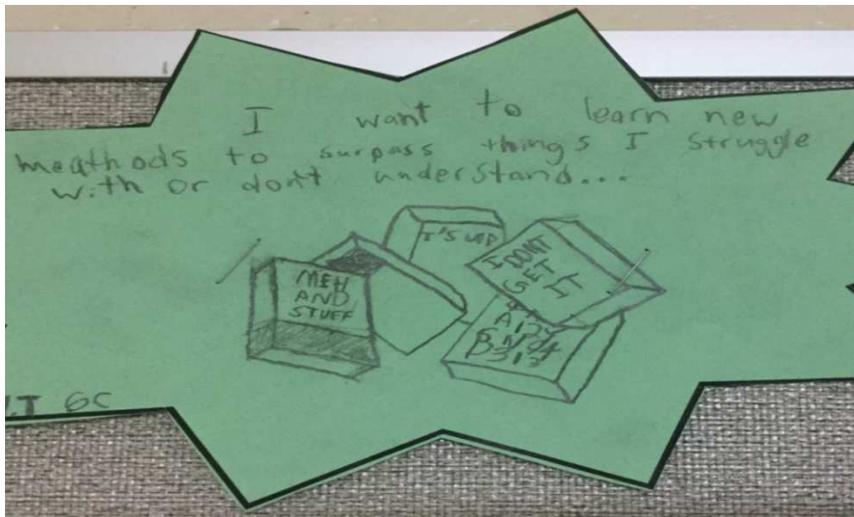
In my first year on the MTIP journey I had made, in my opinion, great strides in following through with my quest. Going into my second year I had ambitions to strengthen those changes I had made to my practice. However, I was struggling to keep up as the year progressed and the “wheels fell off” due to many external events. Questions began to emerge as the year went on and the difficulties began to add up.

Big Question: How do you get kids to talk to each other about math, when they already have difficulties talking to each other socially?

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<sup>1</sup> Reeves, D. (2010). Transforming professional development into student results. Alexandria, VA: Association for Supervision and Curriculum Development.

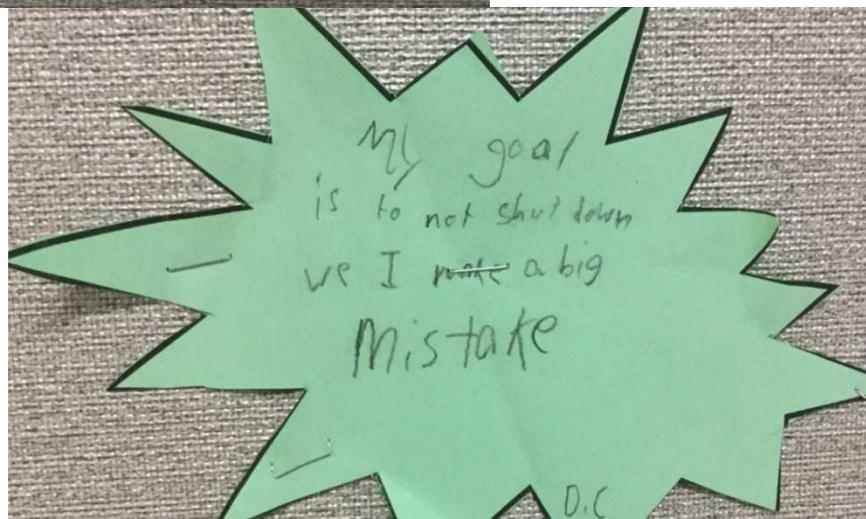




*Despite this...*

It was a challenging year with many obstacles both in the classroom and the school as a whole. I was reminded of how positive

relationships with students can have a huge impact on them both academically and socially. Even though students can be difficult and challenging there still needs to be the daily expectation that they can make mistakes, learn and grow.



### **Melissa's Story**

When offered the gift of a chance to review and improve my own practice with the support of colleagues and coaches, I jumped at the chance. This being my first year with the inquiry project I had no idea what to expect, and thus now see that my quest likely did not actually match with my true goal; that of improving and enriching my students understanding of math concepts. MTIP introduced me to action research, which I had no knowledge of prior to joining this collective. Action research, in my opinion, is authentic and ongoing professional development. Action research gave me the chance to work reflective practice into my schedule. Action research gave me the challenge of accountability to myself and my peers. Action research, as in the process involved during MTIP, is organic professional development that seems more likely to have a lasting impact. My own journey with action research through my own quest did not yield the initial results I had hoped, but the method is a guide for me moving forward to developing as an educator.

*My quest...*

My quest was to improve my ability to work with students on curriculum outcomes while bridging gaps in basic math skills. More precisely, to increase student understanding of

fractions with students who have not developed the idea of multiplicative thinking. In the past I had employed a “bandage” approach to teaching fractions. This meant when teaching a new concept, if students seemed lost, I would briefly go over the material on the board in a slightly different way and continue. This style saw my students memorize rules and procedures, not always correctly, rather than having a greater understanding of math. Through the implementation of my quest I was to “go slowly, thoroughly and methodically” to increase student engagement and understanding of math.

### *The struggles...*

My quest was to effectively guide students through the acquisition of the ability to manipulate fractions while managing gaps in learning that include lack of multiplicative thinking. In order to implement my quest I would have to monitor daily what I was teaching, how I presented the lesson, and how my students perceived the lesson. This quest presented two struggles for me. The first struggle would be attempting to build formal reflective practice into my daily routine, and the second struggle would be improving and enriching my own understanding of the concepts I was teaching.

Changing my mindset around my past pedagogy felt like a small step forward rather than a great leap. I had never been satisfied with my delivery of instruction when it came to mathematics and thus was more than eager to try a new philosophy of instruction. I began to place far more importance on knowledge acquisition than checking one more lesson off of my list. This opened up a whole new world of fun and engaging lessons for our class.

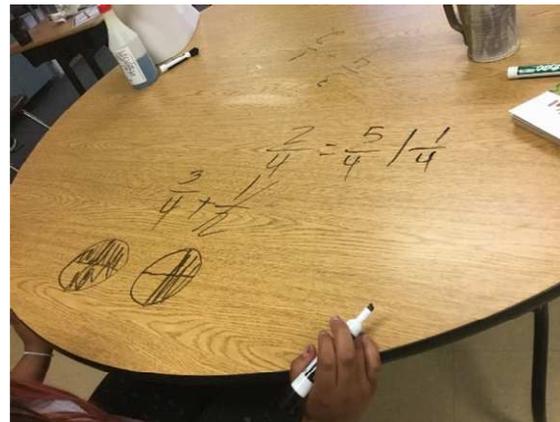
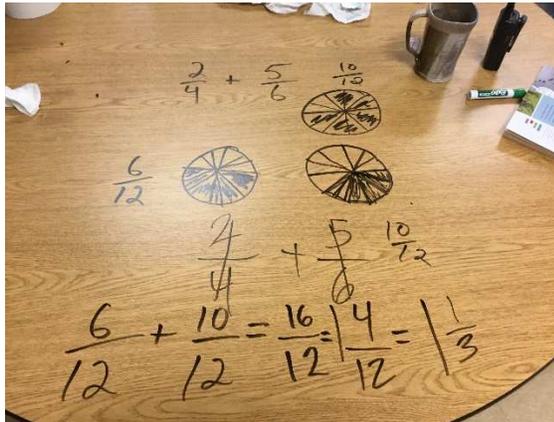
While changing my pedagogy was straightforward, changing my reflective practice was more challenging. I found it difficult to carve out time for journaling and reflecting and would often go weeks without completing any formal reflective pieces. I would come up with creative ways to incorporate the journaling into my practice only to have the “wheels fall off” after a week or two. I still have yet to find the mode of formal reflection that I can integrate into my daily routine.

The second struggle of improving and enriching my own understanding of fractions was rather straightforward because I was so well supported. I had many resources in the form of books, webinars and peers, that I could turn to for help on presenting fraction concepts in new ways. My experience was one that I wish for others on this collaborative journey of professional development. I was well supported in my journey by my coach, the advisors and my peers. They gave me advice, examples, and sent me podcasts and webinars that helped me enrich and deepen my own understanding of fractions, allowing me to be a more effective coach and guide to my own students.

### *Despite this...*

Where there is struggle there is growth. While I am not sure that I have achieved my goal of creating a level of understanding that allows for manipulation of fractions despite my students’ prior struggles in developing math skills, my students have progressed. My delivery has

improved, my math classes see higher levels of student engagement and the understanding of math is deeper and more permanent.



### Learning When the Wheels Fall Off

As teachers, we ask our students to learn from their mistakes. We believe this enough that we work hard to build learning environments where children feel safe to take risks and make mistakes. This past year, through participation in MTIP, we asked the same of ourselves as learners. We felt safe to take a risk. It was a struggle. And we learned the value of struggle for learning.

