

Message From the TODOS President

Metaphors for Mathematics Classrooms: The Emergence of a Patchwork Quilt

For many educators across this place called North America the months of August and September are the beginning of a new school year. As we begin those new school years I invite you to think about the metaphors that you live in your practice as a mathematics educator. The metaphors that I use are greatly shaped by my stance as a human and the learnings that I've been taught. Many years ago an Indigenous scholar shared with me that their understanding of learning is that learning occurs through deep observation and deep listening; actively participating in all aspects of community life; multi-age settings; conforming and demonstrating uniqueness; and kinship and interpersonal relationships. As I came to make sense of these 5 principles I came to better understand that teachers and educators are also learners. And, in that awareness the metaphor that I use for my classroom shifted from one of learners as empty vessels, a metaphor that I had repeatedly heard in my early years of teaching.

The metaphor that I now use to tell the story of my classrooms (and, the metaphor that I try to live in all of the work I do) is that my mathematics classroom is like the emergence of a patchwork quilt over the school year or school term. In my classroom, there are many diverse humans that are all learners and many diverse mathematical concepts; I, as the teacher or educator, am included in that diversity. Each human is a patch and each mathematical concept can be included as a patch. The lives of each of the humans and the 'living of the mathematical concepts' come into the classroom and are now a part of the emerging quilt.

As the teacher, I am responsible for learning about the diversity of the humans and the concepts; and then, like the 'quilt maker' for weaving together over the school year the multiple diversities and the multiple concepts into a whole quilt. In order to do this, my ontological stance in the process needs to recognize that the classroom is the 'community' - and that each patch will be simultaneously demonstrating uniqueness and conformity. I, as a teacher must learn about the diversity and beauty in each of the patches and recognize that the patchwork quilt that will emerge with this group of humans will be different from the quilt that will emerge with other groups of humans. Equally important is recognizing that each human and each of the mathematical concepts will offer insights and wisdom into the whole quilt.

So, what does this mean for me in my teaching? I now teach in an undergraduate teacher education program. My students are now studying to become secondary mathematics teachers and the focus of my teaching is mathematics pedagogy. I begin each course with talking about metaphors for classrooms, and in particular mathematics classrooms. I share my metaphor and then I invite each of my students to create a quilt patch that describes their unique gift(s) that they are bringing into the class. I also create a patch. Each human in the room then shares the stories that they tell about their gifts as this is how we begin to develop a relationship. Over the course of the term I return to the concept of the quilt; talking about the patches that are being added (i.e. the mathematical concepts) and the threads that we are collectively using to weave together the patches. I try to make visible in my words and actions the importance of the

metaphor for me and the ways in which decisions I make as a teacher are related to the metaphor.

On one of the final days of the course I share with my students the “threads” that I used to make sense of our quilt and the ways in which I see those threads as weaving together the patches. I invite the students to use their individual patches, to describe the metaphors that are emerging for them or, if they wish to use the patchwork quilt metaphor, as a piece of their final assignments in describing what they’ve learned in the course.

As you begin the new school year I invite you to ask yourself:

1. What metaphors do I use for my practice?
2. How did I come to know this / these metaphor(s)?
3. In what ways does this / these metaphor(s) support my work as an advocate for high quality mathematics education for ALL students?
4. In what ways does this / these metaphor(s) support my work in building inclusive spaces for ALL students to learn mathematics?

New school years are exciting times for everyone and I wish you a successful school year; a year filled with awareness of the threads that you use to weave together the emergent quilts in your practice.

And, I also invite you to invite colleagues to join the community of TODOS: Mathematics for ALL. TODOS: Mathematics for ALL is a learning community - a community that advocates for high quality mathematics education for ALL students.

With gratitude and deep respect,

Florence Glanfield, President
TODOS: Mathematics for ALL