

41st Annual NCSM Conference, Washington, D.C.
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I attended the NCSM National Conference as a first time attendee. I knew several people there, but by the time I left, I had made many new acquaintances and gained a greater understanding of what it means to be a math leader. I listened to experts and heard from math leaders, such as myself, on how to improve the learning and teaching on my campus and in my district. I returned to my school and district, ready to move us forward in student achievement and student success. I know that my students, my colleagues, my campus, and my district will greatly benefit from my attendance at this year's NCSM National Conference. These benefits are directly attributed to the Iris Carl Award that I received. This award makes it possible for math leaders to learn from colleagues by providing travel funding to the NCSM National Conference. I know that if I had not been selected to receive the Iris Carl Award, I could not have gone to Washington D.C. and I would not have grown as a math leader, as I did during the conference.

Especially important to me were three key concepts from Day One of the NCSM Conference:

- 1) differentiated instruction increases achievement for all students;
- 2) slower pacing does not mean better instruction; and,
- 3) wait time is just as important after an answer is offered as it is after the question is asked.

I learned two things specifically regarding my district, Phoenix Union High School

District during the various sessions offered throughout the day. The first was that even though high school achievement is not improving on a national level, as it is at the K-8 level; my district has implemented the appropriate systematic changes to bring about improvement and positive growth as recommended by the Keynote speaker, Kati Haycock from The Education Trust. I also realized that differentiated instruction can be a key to making our Introduction to Algebra and Algebra 1-2 classes a success for all freshmen students.

At the end of the first day, I concluded that there is still a lot of work to be done by our teachers and district, but that we have begun to take the first steps in the right direction in order to best serve the mathematical needs of all our students.

The three key concepts I picked up from the sessions on Day 2 were a rubric for formative assessments, additional knowledge and practice about questioning and the style feedback should take on assessments.

Two things I learned that apply to my district and our campus were that "cutting edge" research emphasizes K-8 education, and differentiated instruction and formative assessments go hand in hand.

My conclusion and question at the end of the day was how would I share the information I gained at the conference with my colleagues, while conveying my building enthusiasm as a math leader? I want to make sure that I am able to "infect" my colleagues with my enthusiasm, not only at my campus, but at the district level as well.

On the final conference day I listened to former NCTM President Skip Fennell

discuss the need for math specialists at the K-8 level. I also heard how a consultant is needed so a teacher leader can become a math coach. I also participated in the creation of a 10,000 cup snake and the implications of this activity in any math class.

The ways we, as teachers, view math problems are often different than the views of our students. Anthony Harradine, of Prince Alfred College in Australia, demonstrated for us how we sometimes forget the entire math a simple algebraic problem contains, such as $14x$. We tend to not verbalize our thinking and learning process for our students, nor do we allow them ample

activities or time to discover these concepts on their own. Mr. Harradine led us through a magical math problem of $x^2 - 1$ and the afore-mentioned cup snake.

Mr. Harradine also demonstrated a program for the CASIO calculator company that allowed students to show all their steps to solve a problem. This program not only verified the final solution, but also did a step-by-step check of the student work. I hope this software can be available for all students sometime soon.