

Supporting Students' Voice (in the F2F and Virtual) Mathematics Classroom

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Your Thoughts?



The Pando Tree



[https://en.wikipedia.org/wiki/Pando_\(tree\)](https://en.wikipedia.org/wiki/Pando_(tree))

Our Pando Tree

- ▶ The field of mathematics education
- ▶ The educational environment where mathematics teaching and learning takes place
- ▶ Every teacher and learner of mathematics
- ▶ Tonight's #100NCTM community

Student Voice

- ▶ In the mathematics learning environment, student voice can be and should be powerful force.
- ▶ While students own their voice, educators have great influence on how well student voice is developed and amplified.

Agenda

- ▶ Student Voice
- ▶ Empowering Student Voice
 - ▶ Engagement
 - ▶ Trust & Respect
 - ▶ Lived Experience

Your Perspective on Student Voice

Go to www.menti.com and use the code ☺

Student Voice

- ▶ Student voice represents all of the ways students “show up” in the learning environment:
 - ▶ What students say and do
 - ▶ What cultural capital students present
 - ▶ How students interpret experiences
 - ▶ How students engage and interact
 - ▶ How students (choose to) learn
 - ▶ What influence and power students have

Empowering Student Voice in Mathematics

- ▶ "Student voice is developed through students actively engaging with mathematics problems that are set in a context that is relevant to students' lived experiences. An atmosphere of trust and mutual respect naturally facilitates students developing their voice" (Forgasz & Nebres, 2013).

Empowering Student Voice in Mathematics

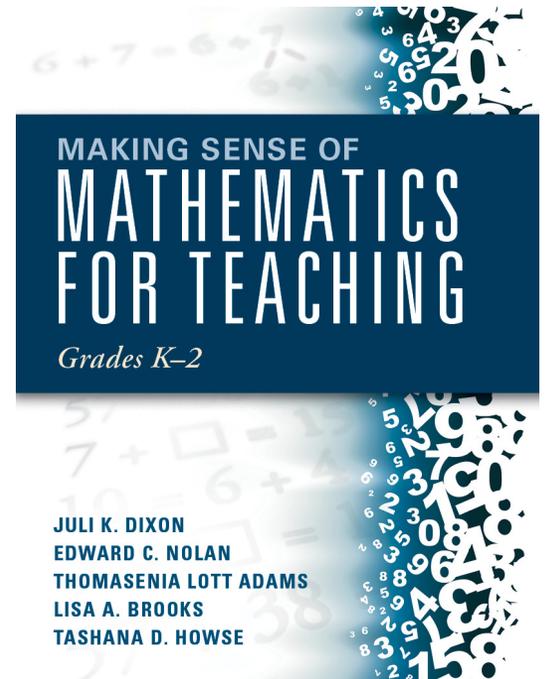
- ▶ "Student voice is developed through **students actively engaging** with mathematics problems that are set in a context that is relevant to **students' lived experiences**. An atmosphere of **trust and mutual respect** naturally facilitates students developing their voice" (Forgasz & Nebres, 2013).

Students Actively Engaging

► Consider this task:

What time is it when the hour hand is on the 24th minute mark?

(Dixon, Nolan, Adams, Tobias, & Howse, 2016, p. 119)

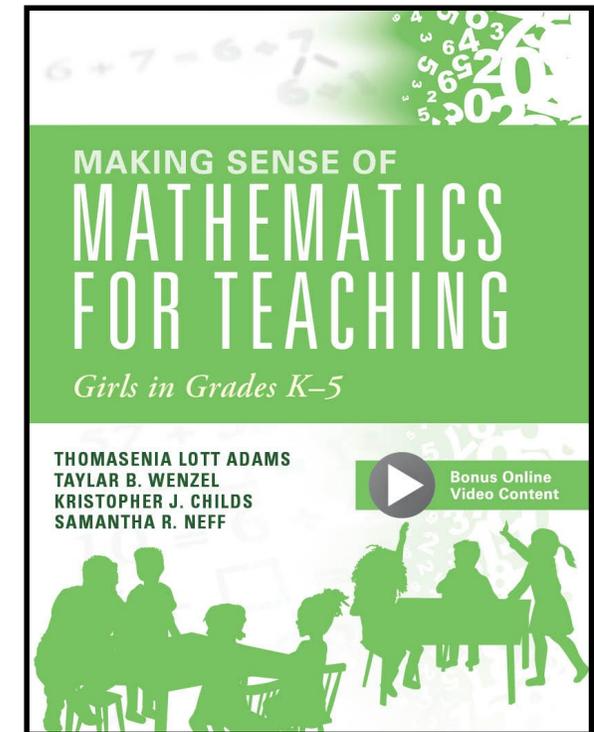


Students Actively Engaging

- ▶ In addition to having high quality tasks as a foundation for mathematics instruction, what advice can you share for actively engaging students?

Students Actively Engaging

- ▶ Honor diverse ways of doing mathematics.
 - ▶ Foster interactive classroom discourse
 - ▶ Plan for a variety of learning styles
 - ▶ Use questioning to boost understanding
 - ▶ Apply formative assessment
 - ▶ Select appropriate contexts for tasks
 - ▶ Model mathematical power
 - ▶ Convey positive teacher expectations
- (Adams, Wenzel, Childs, & Neff, 2019, p. 34-35)



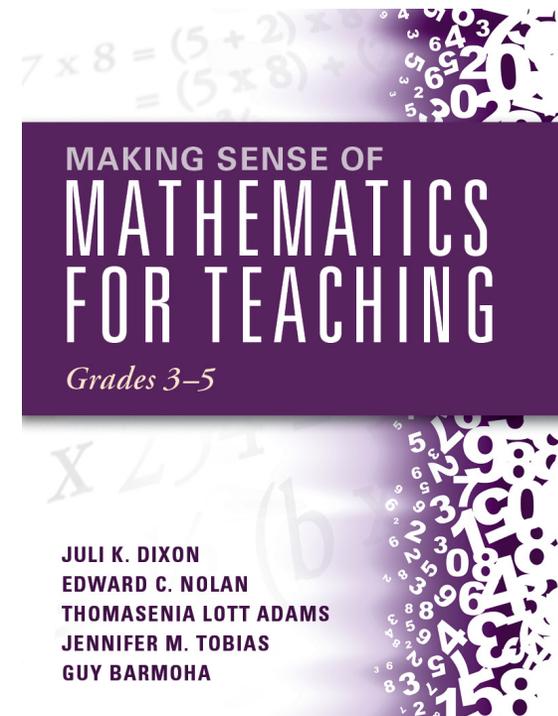
Mutual Trust & Respect

- ▶ For students to actively engage, there must be trust and mutual respect of student voice.

Mutual Trust & Respect

- ▶ Explain and justify solutions.
- ▶ Make sense of each others' solutions.
- ▶ Say when you don't understand or when you don't agree.

(Dixon, Nolan, Adams, Tobias, & Barmoha, 2016, p. 10)



Mutual Trust & Respect

- ▶ What are some norms you facilitate in your classroom to support trust and mutual respect?

Teacher as Community Builder

Share Your Best Moves

- ▶ What are you doing to build community that supports student voice in your classroom?

Students' Lived Experiences

References

- ▶ Adams, T. L., Wenzel, T. E., Childs, K. J., & Neff, S. R. (2019). Making sense of mathematics for teaching girls in grades K-5. Bloomington, IN: Solution Tree Press.
- ▶ Atweh, B., Forgasz, H., & Nebres, B. (Eds.). (2013). Sociocultural research on mathematics education: An international perspective. New York, NY: Routledge.
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- ▶ Dixon, J. K., Nolan, E. C., Adams, T. L., Tobias, J. M., & Barmoha, G. (2016). Making sense of mathematics for teaching, Grades 3-5. Bloomington, IN: Solution Tree Press.

Thank you!

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