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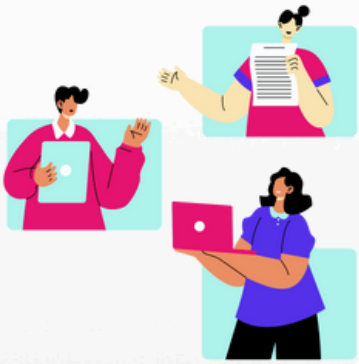

Session 1 Summaries

Mathematics Teachers (Secondary)

Date: October 17, 2024
Hosts: Yujiro Fujiwara, Heidi Rhodes

Challenges in Mathematics Education

Mathematics often serves as a barrier for many students, and current teaching approaches may not be addressing these challenges effectively. Educators need to reflect on their practices to better align with evolving standards and student needs.

The Importance of Diverse Teaching Methods

A mix of inquiry-based learning and explicit instruction is essential for effective math teaching. No single method works for all students, and teachers must adapt their strategies based on the classroom context and individual learning styles.

Balancing Procedural Fluency and Conceptual Understanding

Both procedural fluency and conceptual learning are crucial in math education. While some advocate for building procedural skills first, others emphasize inquiry as the foundation for both conceptual understanding and procedural fluency. A balanced approach is key.

The Role and Purpose of Mathematics in Education

The push for a standardized curriculum to prepare students for higher education may not align with all learners' diverse needs and interests. The view of mathematics as a mandatory, utilitarian subject geared toward economic success can marginalize students who struggle with or do not see its relevance.

Additional Resources

- Padlet
- Session 1 Slide Deck
- Session 1 Recording

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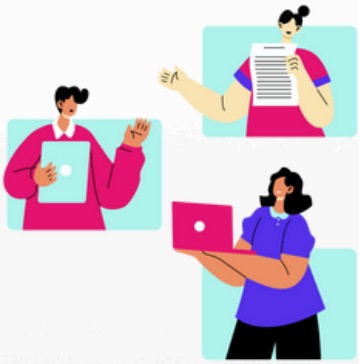

Session 2 Summaries

Mathematics Teachers (Secondary)

Date: November 7, 2024
Hosts: Yujiro Fujiwara, Heidi Rhodes

Learning Targets and Success Criteria

Being upfront with learning targets and success criteria is crucial for student success. Communicating what students are expected to know and how they can demonstrate their understanding empowers them to take ownership of their learning.

Dissected Math Problems

As a learning community, we selected a math topic, listed the learning targets, and defined success criteria to give students the autonomy to test their ideas while experiencing a scaffolded learning process.

Co-Creating Success Criteria in Inquiry-Based Learning

We recognize that standardized success criteria don't always fit inquiry-based learning, so we concluded that co-creating them with students is powerful. This collaboration tailors the learning process to individual needs. This, while ideal, requires much time.

Additional Resources

- Session 2 Slide Deck
- Session 2 Recording

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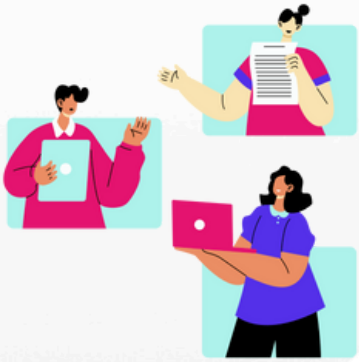

Session 3 Summaries

Mathematics Teachers (Secondary)

Date: November 21, 2024
Hosts: Yujiro Fujiwara, Heidi Rhodes

Assessments Shape Views: Math as Routine vs. Dynamic

The message that assessments give kids about the discipline: assessment that is procedural or focused on a smaller learning target tells kids that mathematics is a routine discipline.

Math: A Field to Explore, Not a Ladder

Mathematics is not a ladder to climb but rather a field to explore. A focus more on procedural fluency without conceptual understanding leads towards students who might see mathematics as a ladder.

Shared Resource Sparks Collaborative Critique

A shared resource allows participants to press against something else: we had an assessment that everyone critiqued which allowed everyone to share their ideas about something rather than just talking about their own beliefs.

Additional Resources

- Session 3 Slide Deck
- Session 3 Recording

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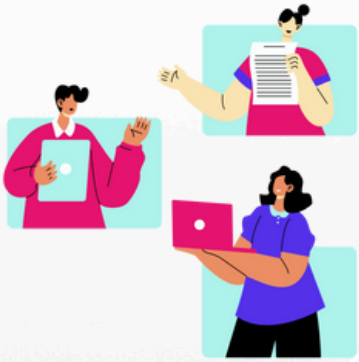

Session 4 Summaries

Mathematics Teachers (Secondary)

Date: December 5, 2024
Hosts: Yujiro Fujiwara, Heidi Rhodes

Balanced Instruction

Explored and debunked false dichotomies in math education (e.g., inquiry vs. procedural fluency, real-world application vs. pure mathematics) and emphasized designing instruction with clear success criteria that integrates conceptual understanding and procedural mastery.

Collaborative Innovation

Analyzed and created lessons that balance inquiry-based learning with mastery-focused instruction, explored the use of AI to personalize learning experiences for students, and brainstormed ways to integrate technology for enhancing engagement and understanding.

Community Building

Built a collaborative math cohort that fosters ongoing support and shared learning,

Additional Resources

- Session 4 Slide Deck
- Session 4 Recording

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