Webinar presented by
the Equity Assistance Center Region VIII,
Metropolitan State University of Denver

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STEM & Equity: Designing School and Classroom Environments for Improved Achievement
(Part II: Classroom Inquiry Tools)

Janelle M. Johnson, PhD
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Discussion questions

1. What tools are you currently using to facilitate equitable inquiry in STEM classrooms?

2. What are your needs in terms of tools for classroom inquiry?
Contents of this session

- Focus on inquiry
- Problem-based learning
- Digital tools for inquiry
- STEM equity rubric
- Closing discussion and feedback
Problem based learning (PBLs) as inquiry

Students work in teams to experience and explore relevant, real-world problems, questions, issues, and challenges; then create presentations and products to share what they have learned.

Video: Inquiry addresses equity in the STEM classroom
Discussion: What are some of the ways inquiry can address equity in the STEM classroom?
# Problem based learning (PBLs)

(Poll)

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<th>Significant content</th>
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- Community-based PBL in Washington
Digital tools for inquiry

Creating – Story Kit, Comic Life, iMovie, and GoAnimate.com, SonicPics, Fotobabble, and Sock Puppet.


Analyzing – Corkboard.me, Poll Everywhere, SurveyMonkey.com, Study Blue, Keynote, and Stickyboard.

Applying – ScreenChomp, SonicPics, QuickVoice, Fotobabble, Keynote, Podomatic, and Skype.

Understanding – PowerPoint, Google Blogs, Fotobabble, Bit.ly, Twitter, and neu.Annotate.

Remembering – Pages, Google Docs, Study Blue, Bit.ly, and Wordle.
How could you apply this idea in your school or classroom?
STEM Equity Rubric

- Utilizing their L1 to process information
- Engaging in relevant problem solving
- Reading content rich text (L1 or L2)
- Using technical vocabulary—speaking and writing
- Reflecting on their learning
- Hearing appropriate feedback that encourages continued participation
- Understanding that teachers have high expectations for them
- Participating in reasoning, arguments, and critique
- Sharing their knowledge and evidence with small groups
- Sharing knowledge and evidence with whole class
- Using written, verbal, and illustrated representations using evidence
Looking ahead to the next webinar

1. Of the topics covered today, which would be the most helpful to cover in greater detail?

2. What was not covered today that would be helpful for you?
In closing

What classroom tools will you be using/sharing to improve STEM equity?

Other questions?

Contact us at www.MetroState-EAC.org

My email is jjohn428@msudenver.edu
References

- 8 Essentials for Project-Based Learning. The Buck Institute for Education; www.bie.org

- Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects.


- Next Generation Science Standards: For States, By States.