

Five Elements of Motivating and Engaging Mathematics Instruction

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Mathematics classrooms are motivating and engaging...

1. CLIMATE OF UNDERSTANDING

...when mathematics makes sense and when students believe that they are capable of making sense of mathematics (Boaler, 2015; Cohen & Lotan, 1995, Hiebert et al., 1997; Midgley et al., 1998; Seeley, 2009).

2. CLIMATE OF CURIOSITY AND RELEVANCE

...when the mathematics and situations in which the mathematics is set are interesting to students (Hidi & Renninger, 2006).

3. CLIMATE OF CHALLENGE AND SUPPORT FOR CHALLENGE

...when students are asked to take intellectual risks and feel safe and supported to take them (Stein, Grover, & Henningsen, 1996; Thanheiser & Jansen, 2016; Steuer, Rosentritt-Brunn, & Dresel, 2013)

4. CLIMATE OF ACTIVE LEARNING AND AGENCY

when effort and understanding are promoted over a performance culture or over competition because students' ideas are central to mathematics instruction (Blackwell, Trzeniewski, & Dweck, 2007; Kazemi & Stipek, 2001).

5. A WELCOMING AND WARM CLASSROOM COMMUNITY

...when students feel that they matter – as people – to their teacher and their peers (Cohen & Lotan, 1995; Turner, Meyer, Midgley, & Patrick, 2003).

Rights of the Learner

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1. You have the right to be confused.
2. You have the right to make mistakes.
3. You have the right to say what makes sense to you.
4. You have the right to write what makes sense to you.

Kalinec-Craig, C. (2016). Rights of the Learner: A framework for promoting equity through formative assessments in mathematics education. In Wood, M. B., Turner, E. E., Civil, M., & Eli, J. A. (Eds.). *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Tucson, AZ: The University of Arizona.