
Joy in university math classes

La joie dans les cours de mathématiques à l'université

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The Perplexing Power of Pop Quiz Pageantry

Come walk a mile in my students' shoes. My students: future teachers of elementary and secondary school mathematics. Their task: a pop quiz given during the first few minutes of the very first day of the semester. Our task: answer a few questions from the pop quiz, engage in a bit of "what do you think they thought" discussion, and see how doing the quiz twice, first alone then second in a group, along with some of my "patented" pop quiz pageantry, turns one of the most feared math class activities into, of all things, a fun and joyful activity that acts as an important callback throughout the rest of the semester. Fair warning: my dog has already eaten the answer key to the pending pop quiz questions you will answer, and please be prepared to work in small groups.

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Thinking Dice

Engaging students in meaningful mathematical thinking often begins with inviting them to play. In my calculus classes, I use a simple tool I call Thinking Dice: oversized dice with transparent side pockets that hold interchangeable prompts. Depending on the lesson, the dice become a lesson opener, a reflective closing activity, or a way to guide students through "thinking levels." Each roll creates an element of surprise and curiosity, encouraging students to articulate reasoning, make connections, and explore ideas collaboratively. This brief presentation will showcase how "Thinking Dice" brings joy, creativity, and active learning into the calculus classroom.

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