

## 10 Classroom Ideas that Use Writing to Promote Deeper Understanding

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Susan Gay ([sgay@ku.edu](mailto:sgay@ku.edu)) and Ingrid Peterson ([ipete@ku.edu](mailto:ipete@ku.edu))

University of Kansas

We use writing activities with our students to develop new knowledge, to diagnose misunderstandings, to foster higher-order thinking, and to prompt self-reflection. Examples of our tasks and our students' work will provide ideas you can use in your classroom.

### 10 Classroom-tested Ideas

1. Writing to assess and develop knowledge of vocabulary
2. Writing to describe ideas or objects
3. Writing to compare and contrast
4. Writing to justify and foster sense-making
5. Writing for error analysis
6. Writing to describe mathematical relationships in real-world contexts
7. Writing to evaluate someone's response
8. Writing to summarize main ideas
9. Writing for test reflections
10. Writing to prompt self-reflection

For each of these, we will share at least one idea we have used in courses, such as Intermediate Algebra, College Algebra, and Mathematics for Elementary School Teachers. We will also share some of our students' work and consider the nature of information that can be learned from these responses, such as students' misconceptions about mathematical ideas, students' knowledge of mathematics vocabulary, and the ways students choose to justify conclusions.

### Reference

Gay, A. S. & Peterson, I. (2014). Writing to promote and assess conceptual understanding in College Algebra. *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 24(7), 637-646.