Math + Writing = Better Test Performance

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Discover writing strategies to improve student success on today's standardized tests without compromising valuable instructional time.

A 2-day workshop for teachers of mathematics in grades 5 through 10 who want to improve students' abilities to express their mathematical thinking through writing

Many of our students resist the idea of recording their thoughts in writing. Even those students who enjoy writing in other areas of study are often resistant to write in math class. Yet, writing can be one of the most effective and efficient ways for teachers to gain insight into students' thinking and to fine tune their responses on extended-response test items.

The practical ideas presented in this workshop were created and compiled by a classroom teacher who *daily* integrated writing into her mathematics classes in order to:

- improve students' writing abilities for greater success on new state tests.
- assess what aspects of problems that students still did not understand.
- improve students' usage of mathematics vocabulary.
- promote better communication in the classroom setting.
- provide experiences where students could see connections within mathematics and to real-world situations.
- enhance student self-esteem as students gained more confidence in their writing and took pride in their work.

In two days you will be introduced to multiple strategies that will accomplish the above goals and heighten your enjoyment of working with your students. Use these writing tasks not only to assess student understanding and improve their performance but also to communicate valuable information to parents and to students' future teachers.

"Do we have to write this down?" Answer "Yes!" to this commonly asked question with ideas that will *inspire your students to write!*

In This Workshop You Will Discover:

Techniques for constructing guided response forms that will:
- help structure students'thinking in process problems
- encourage discussion of problem-solving techniques
- help students connect previously learned concepts to new situations
- assess what students do and do not understand

Problem-solving experiences that promote valuable oral and written discussion
- rich problems for *all* students, including experience in:
  - data gathering
  - statistics
  - probability
  - computational procedures
  - algebraic and geometric thinking
- connections to literature
- questioning techniques
- alignment with the NCTM *Standards* of:
  - Problem Solving
  - Communication
  - Reasoning and Proof
  - Connections
  - Representation

How word webs can be used to:
- encourage participation
- assess prior knowledge
- organize thoughts
- guide lesson planning
- review material

How to incorporate math journals
- useable formats
- benefits to student and teacher
- ready-to-use prompts

Ideas and procedures for independent student projects
- topic ideas
- requirements and guidelines
- in-class and out-of-class schedules
- oral presentations
- samples of actual student work

How to conduct an occupational interview project
- procedures that work
- interviewing etiquette
- writing a report of the interview
- assessment of the project

Strategies to encourage student authorship of lessons and problems...
- given visual prompts
- for other students to use
- involving both research and creative writing

How a group of at-risk students wrote and published a mathematics textbook, *Pioneer Math: Written by Kids for Kids*, which has been purchased and used throughout the United States, Canada, and Great Britain

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Mathematics
Grades 5-10
2 Days