



Integrating Writing & Math CEUs: 3

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Introduction:

Welcome to *Integrating Writing & Math*, an online professional development course geared primarily for educators. This course focuses on incorporating writing in math class to help students reflect on their learning, deepen their understanding of important concepts by explaining and providing examples of those concepts, and make important connections to real-life applications of the math they are learning. Educators will use the writing assignments to assess student understanding of important concepts, student proficiency in explaining and using those concepts and each student's attitude toward learning mathematics. Writing in mathematics is a win-win for both teacher and student. Although it may be difficult to introduce this practice, it is well worth the effort. -

This course will focus on the following areas:

- **Setting the Environment for Writing and Getting Ideas**
- **Reading and Talking in Math Class**
- **Working with Math Journals**
- **Lesson Plan Project**

Academic Integrity Statement

The structure and format of most online courses presume a high level of personal and academic integrity in completion and submission of coursework. Individuals enrolled in an online professional development course are expected to adhere to the following standards of academic conduct.

Academic Work

Coursework submitted by the individual shall be the educator's own work or appropriately attributed, in part or in whole, to its correct source. Submission of commercially prepared (or group prepared) materials as if they are one's own work is unacceptable.



Aiding Honesty in Others

The individual will encourage honesty in others by refraining from providing materials or information to another person with knowledge that these materials or information will be used improperly.

Violations of these academic standards may result in loss of credit for the course.

Level of Application

This course is designed to be an informational course with application to educational settings. The strategies are appropriate for the remediation of challenging behavior in students.

Course Objectives:

Upon completion of the 4 modules in this online professional development course, educators should:

- ✓ Know the terminology to use when integrating writing and math
 - ✓ Utilize various resources relevant to writing and math integration
 - ✓ Apply the strategies covered in the course
 - ✓ Increase the probability of students performing better academically
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Course Description

The *Integrating Writing and Math* was developed to provide educators with various approaches to teaching this concept. The course discusses and supports several classroom techniques. These techniques allow educators to gain a knowledge and understanding of how to assist students with writing in mathematic.

Essentially this course teaches educators how to implement strategies to introduce, teach, and assess important concepts. Methods to incorporate short writings throughout daily lessons and longer writings over the course of weeks or math units will be utilized to assess student understanding. If students are able to understand a math concept and express that understanding writing, their appreciation for both writing and math will increase. An increase appreciation of the subjects will increase the probability of students performing better academically.



Course Units

Unit 1: Setting the Environment for Writing and Getting Ideas

Upon completion of this unit, the educators are expected to:

- Provide understanding feedback through discussion forums on “**Setting the Environment for Writing and Getting Ideas**”.
- Score 90 to 100% on “**Setting the Environment for Writing and Getting Ideas**” quiz.
- Share their ideas with other educators (workshop and school).

Reading Assignments	Graded Activities and Deliverables		
	Grading Category	Activities/Deliverables	Grade Allocation (% of all graded work)
Various reading assignments are located in unit-week 1	Assignment	Complete the reading assignments	5%
	Discussion	Setting the Environment for Writing and Getting Ideas ”.	5%
	Assessment	Quiz from reading assignments	5%
	Assignment	Lesson Plan Snippet	5%
	Assignment	Peer Observation	5%



Unit 2: Reading and Talking in Math Class

Upon completion of this unit, the educators are expected to:

- Provide understanding feedback through discussion forums on **“Reading and Talking in Math Class”**.
- Score 90 to 100% on **“Reading and Talking in Math Class”**.
- Share their ideas with other educators (workshop and school).

Reading Assignments	Graded Activities and Deliverables		
	Grading Category	Activities/Deliverables	Grade Allocation (% of all graded work)
Various reading assignments are located in Unit-week 2	Assignment	Complete the reading assignments	5%
	Discussion	“Reading and Talking in Math Class”	5%
	Assessment	Quiz from reading assignments	5%
	Assignment	Lesson Plan Snippet	5%
	Assignment	Peer Observation	5%



Unit 3: Working with Math Journals

Upon completion of this unit, the educators are expected to:

- Provide understanding feedback through discussion forums on **“Working with Math Journals”**.
- Score 90 to 100% on **“Working with Math Journals”** quiz.
- Share their ideas with other educators (workshop and school).

Reading Assignments	Graded Activities and Deliverables		
	Grading Category	Activities/Deliverables	Grade Allocation (% of all graded work)
Various reading assignments are located in unit-week 3	Assignment	Complete the reading assignments	5%
	Discussion	“Working with Math Journals”	5%
	Assessment	Quiz from reading assignments	5%
	Assignment	Lesson Plan Snippet	5%
	Assignment	Peer Observation	5%



Unit 4: Lesson Plan Project

Upon completion of this unit, the educators are expected to:

- Collaborate with others through discussion on the creation of your lesson plan
- Submit your “Writing in Math” lesson plan.
- Share their ideas with other educators (workshop and school).

Lesson Plan Activities	Graded Activities and Deliverables		
	Grading Category	Activities/Deliverables	Grade Allocation (% of all graded work)
Various Lesson Plans examples are located in unit-week 4	Assignment	Complete the reading assignments	5%
	Discussion	“Writing in Math”	5%
	Assessment	Quiz from reading assignments	5%
	Assignment	Lesson Plan Project	5%
	Assignment	Peer Observation	5%



Earn It – Final Wrap-up

Upon completion, the educators are expected to have more depths of knowledge on the course objectives.

Assessment	Graded Activities and Deliverables		
	Grading Category	Activities/Deliverables	Grade Allocation (% of all graded work)
Writing guidelines for reflection is located within course	Assessment	Complete the Reflection Assessment	Required to Pass

References:

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