



## **Math Education Program**

*Signature Assignment for EDME 501*

*Action Research on Assessment*

### **Student Learning Outcome(s) Assessed:**

SLO 2: Design various assessments, interpret, and use assessment results for planning and teaching mathematics.

### **Description of the Signature Assignment**

Candidates will work on an action research project that engages them in the inquiry process of developing assessment instrument, collecting, analyzing and interpreting student assessment data. The purpose of this action research is to help candidates learn and demonstrate their understanding of how summative assessment influences their classroom instruction.

### **Directions for Students**

You will develop an action research project that requires you to design different types of mathematics assessment questions at one grade level from K-8, conduct the assessment in the field, collect student assessment data, analyze and interpret the data, interview two students to find out their thinking of mathematics and identify common errors, and reflect on your learning. This analytical paper should synthesize how summative assessment influences the classroom instruction.

**Scoring Rubric:**

<b>Criteria</b>	<b>4 = Exceeds expectations</b>	<b>3 = Meets expectations</b>	<b>2 = Meets some expectations</b>	<b>1 = Does not meet expectations</b>	<b>0 = Unable to score; incomplete or missing work</b>	<b>Final Score</b>
<b>Design the assessment questions</b>	Assessment questions are well developed with different types. All questions are clear and appropriate and cover important math content areas.	Assessment questions are appropriately developed with different types. All questions cover important math content areas.	Assessment questions are adequately developed with different types. Some questions cover important math content areas.	Assessment questions are adequately developed with few types. Few questions cover important math content areas.	Nothing was submitted.	
<b>Collect and analyze data</b>	Data collection includes all students' original assessment; analysis includes a table of students' raw scores, two different graphs of scores; analysis of students' strengths and weaknesses with examples	Data collection includes some students' original assessment; analysis includes a table of students' raw scores and one graph of scores; analysis of students' strengths and weaknesses with examples	Data collection includes few students' original assessment; analysis includes a table of students' raw scores and two graph of scores; analysis of students' strengths and weaknesses without examples	Data collection does not include students' original assessment; analysis does not include table of students' raw scores or graph of scores; analysis of students' strengths and weaknesses without examples	Nothing was submitted.	
<b>Interview students and analyze common errors</b>	Description of interview includes all conversations that address your appropriate questions and students' original responses; methods of correcting student misconceptions are thoroughly addressed	Description of interview includes some conversations that address your appropriate questions and students' original responses; methods of correcting student misconceptions are completely addressed	Description of interview includes some conversations that does not adequately show your appropriate questions and students' original responses; methods of correcting student misconceptions are not adequately addressed	Description of interview includes insufficiently conversations that show your inappropriate questions and students' original responses; methods of correcting student misconceptions are not appropriate	Nothing was submitted.	

Criteria	4 = Exceeds expectations	3 = Meets expectations	2 = Meets some expectations	1 = Does not meet expectations	0 = Unable to score; incomplete or missing work	Final Score
<b>Overall Reflection</b>	Thoroughly addresses main issue of classroom mathematics assessment and provides new insight into classroom mathematics assessment; synthesizes assessment knowledge in new ways and relates to professional practice	Directly addresses main issue of classroom mathematics assessment, but does not provide new insight into classroom mathematics assessment	Attempts to address main issue of classroom mathematics assessment, but insufficient; does not provide new insight into classroom mathematics assessment	Does not address the main issue of classroom mathematics assessment	Nothing was submitted.	
<b>Writing Clarity of Style</b>	Writing is clear. All sentences are grammatically correct and clearly written. All information is accurate and up-to-date with accurate references. Paper has been spell-checked and proofread, and contains no errors.	Writing is clear. Most sentences are grammatically correct and clearly written. Most information is accurate and up-to-date with accurate references. Paper has been spell-checked and proofread, and contains few errors.	Writing is relatively clear. Most sentences are grammatically correct and clearly written. Some information is accurate and up-to-date with accurate references. Paper has been spell-checked and proofread, and contains some errors.	Writing is not clear. Most sentences are not grammatically correct and clearly written. Most information is not accurate and up-to-date with accurate references. Paper has not been spell-checked and proofread, and contains many errors.	Nothing was submitted.	
<b>Total</b>						

**Evaluation of EDME 501 Signature Assignment**

Candidate Name \_\_\_\_\_

Criteria	Score				
	0	1	2	3	4
<b>Design the assessment questions</b>	0	1	2	3	4
<b>Collect and analyze data</b>	0	1	2	3	4
<b>Interview students and analyze common errors</b>	0	1	2	3	4
<b>Overall Reflection</b>	0	1	2	3	4
<b>Writing Clarity of Style</b>	0	1	2	3	4

## Legend

<b>Total Points</b>	<b>College of Education Assessment Scale Equivalent</b>
<b>17-20</b>	4 (Exceeds Expectations)
<b>13-16</b>	3 (Meets Expectations)
<b>9-12</b>	2 (Meets Some Expectations)
<b>5-8</b>	1 (Does Not Meet Expectations)
<b>0-4</b>	0 (Can't Score)