

# Learning Outcomes Assessment Communication– Aggregate Results

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**Assessment Type:** GEC-Math 213  
2016-2017

**Year/Term:**

**Level:** Math 213

**Learning Outcome:** Communication

**Assessment Method/Tool:** Common Rubric-EPCC

**Measurement Scale:** 3-1

**Sample Size:** 37

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	<b>Proficient (# of students)</b>		<b>Adequate (# of students)</b>		<b>Developing (# of students)</b>	
<b>Clearly focuses and logically organizes communication</b>	5	14%	14	38%	18	48%
<b>Edits carefully and accurately</b>	9	24%	14	38%	14	38%
<b>Presents convincing evidence</b>	5	14%	12	32%	20	54%
<b>Employs graphics, media, and source materials appropriately and ethically</b>	NA	NA	NA	NA	NA	NA
<b>Averages (based on 15 student sample size)</b>						
		<b>17%</b>		<b>37%</b>		<b>46%</b>

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**Benchmark:**

**85%**

Institutional benchmark goal for percent of students to meet “Proficient” or “Adequate” levels

**Number Achieving Benchmark:** 20 of how many participants? 37

**Percent Achieving Benchmark:** 54% Actual percentage of students meeting “Adequate” or “Proficient” levels

**Data Analysis: What do these results mean?**

Closing the Loop:

Gen Ed Communications 2016-2017

Foundations of Elementary Mathematics III, was assessed in spring term, 2017, in the context of addressing the Communications outcomes of the General Education program. Two assignments were evaluated, approximately four weeks apart.

The primary audience for this course consists of future elementary school teachers. The communication aspect is considered by evaluating student writing skills in answering questions which, though not exactly open-ended, require careful explanation by students of background ideas, processes used, and justification for the choice of process used in solving geometric problems. Fourteen students submitted work for both assignments, while a few more submitted one or the other, but not both. Of the fourteen, six received lower scores on the second assignment, five showed little change in score, and three showed measureable improvement. These results suggest students are not in general showing the progress we would like toward improved mathematics communication skills. Anecdotally, a third assignment given another four weeks later showed more promising results, but was not formally evaluated.

While the anecdotal evidence from the third (non-evaluated) assignment indicates the course, faculty, and students can be (and were) successful at meeting the desired outcome, the formal evaluations suggest a few things for our faculty to consider in the future. First, we might improve results by doing more modeling of good skills earlier in the quarter. It is also likely that the assignments can be refined to, in the early stage, give more explicit guidelines for the expectations. Finally, it will be helpful to continue these assessments in the other two courses of the sequence.