

Wright College Academic Department/Program Assessment Project Spring 2016 (Phase II)

WHAT?

Describe the purpose of this assessment project.

This is Phase II of the assessment project which the Math Department began in fall 2015. Its purpose was to search past student performance results from our department's final exit exam records from fall 2015. We were particularly interested in how well our students performed in the "reading" of math. In Phase I of this project, we specifically identified the top 5 final exam problems from Math 118 General Education Mathematics, Math 125 Introductory Statistics, and Math 140 College Algebra, which challenged our students the most in reading and comprehension. Now, in Phase II we report these results for each of the three general education courses that we studied. We also identify the lowest scoring problems, and we describe our action plan for improvement.

WHY?

Describe your department/program's reasons for taking on this project and the areas of your department/program that are involved.

Background (Phase I):

Our goal in taking on this project is to help our students succeed in the reading of mathematics. We chose Math 118, Math 125, and Math 140 because all students are required to pass one of these courses to fulfill the general education math requirement for graduation. Also, since all students must comply with a departmental final exit examination requirement in their respective courses, the Math Department felt

enough data would be available to accurately quantify student proficiency levels.

Now (Phase II):

By studying student performance results of the top 5 reading questions from each final exam, we can assess how well our students are able to read, interpret, and comprehend math problems. Moreover, we are better equipped to develop a plan of action to improve student performance.

HOW?

Describe the participants, methods, and the timeline for this project.

Math faculty will study spring 2015 final exit examination questions for each course and identify the top 5 questions from each that required the highest levels in reading proficiency. Questions identified are those relevant to the "reading" of math. This not only includes the reading and comprehension of word problems, but also comprehension and understanding of mathematical terminology used in each course.

Our timeline is as follows:

Phase I - Fall 2015 (done): Identify the top 5 final exam questions from Math 118, Math 125, and Math 140 that involve reading mathematics.

Phase II - Spring 2016 (in progress): Using the Math Department Spring 2015 Semester Assessment Report, evaluate student results, and design and implement an action plan.

WHAT WE FOUND

1. Describe the way in which your department/program will collect results. 2. Provide the results. 3. Describe how these results will be used for improvements.

1. Results were collected by reading the departmental final exit exams for each course and identifying the top 5 questions that required the highest levels of "reading" math. Next, the corresponding student performance exam scores were found from the Math Department Spring 2015 Semester Assessment Report. Those questions which had low scores were identified as action items in our improvement plan.

2. Results are given below.

Student Scores of top 5 math "reading" problems are given below from the final exams from spring semester 2015. Problems with unsatisfactory results are identified as action items:

Math 118 General Education Mathematics	
Problem #	Score (**denotes action item)
7	57%**
10	3%**
15	45%**
17	26%**
22	67%**
Math 125 Introductory Statistics	
Problem #	Score (**denotes action item)
4	20%**
14	92%
16	32%**
19	66%**
20	90%
Math 140 College Algebra (Test Version A)	
Problem #	Score (**denotes action item)
2	74%
11	62%**
15	69%**
22	82%
23	82%

3. How these results will be used for improvements.

Since we identified the final exam reading problems with unsatisfactory scores, we developed an action plan:

- First, our math faculty will be made aware of these action items, and will consequently put in a greater effort in educating their students to read and comprehend mathematical word problems. (done)
- 2. Next, our math department will create and distribute remedial problem sets to our faculty and to the tutoring center. We also plan to work with our tutors to ensure students are developing the necessary skills needed to read and comprehend math word problems. (being done. Word problem sets attached below.)
- 3. Third, our department will monitor student progress and support our tutors as needed. (being done)

Attachments: Links to Word Problem Sets:

- 1. For Math 118: <u>https://cccedu-</u> <u>my.sharepoint.com/personal/tjankowski1 ccc edu/ layouts/15/</u> <u>guestaccess.aspx?guestaccesstoken=aJcHjSu9yNA2vsRG4nKRUw</u> <u>WzuTLHmN%2fGhBAWcffMvNc%3d&docid=097ab9703ce5f48e5</u> <u>9d403b174f837b00</u>
- 2. For Math 125:

https://cccedumy.sharepoint.com/personal/tjankowski1 ccc edu/ layouts/15/ guestaccess.aspx?guestaccesstoken=iNH6ceBi0gP2B7kX5gUthx9g

<u>GdM0vX%2bl31DLPzaHKgs%3d&docid=054e06d09d9834a6bb2</u> edb81f3f9d8c75

3. For Math 140:

https://cccedu-

my.sharepoint.com/personal/tjankowski1 ccc edu/ layouts/15/ guestaccess.aspx?guestaccesstoken=j9DTMJqXkfuCA7yd53QydOj FmF3yACWX0ICAF11%2bfCw%3d&docid=0352a39ce66cf454e9 dfb5a075d571fd1

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