Description of the Student Learning Project

We are working on institutional level assessment for the goals of communication and mathematical reasoning. During Fall, 2008, we piloted a rubric for each of these goals using student work from different courses. We discovered problems in each area and are currently trying to adjust our plan to address these obstacles.

In the area of communication, there were two main issues. One problem was that the rubric did not work for all the different types of writing assignments (business letters, science reports, essays, etc.) We are now setting up a "template," which will contain the same basic criteria (audience/purpose, support/development, structure/organization, mechanics, and discipline specifics) but from there can be tailored to an individual assignment. The other problem with the first draft of the rubric was that the language was too general. For example, to score a 5 on mechanics, the paper had to contain "only a few errors," which could be interpreted in numerous ways. This problem will also be corrected by using the "template" because instructors will create their own specific weights/values for each criteria.

The math rubric was problematic as well. When the group of evaluators met to use it, it simply seemed too general to use on any one assignment. As a result, two math faculty members proposed an alternative plan for institutional assessment of the mathematical reasoning goal. Their idea was a formula that would weigh the classes at JALC that teach to mathematical reasoning. The weight would be based on the quantity and difficulty of the math done in the class. The other parts of the formula would be the grade earned in the class and the number of credit hours. Finally, a computer program would run all graduating students' transcripts to determine how students performed in mathematical reasoning. However, most members of our academy team did not like this plan because of its emphasis on grades; they felt this would not necessarily be a reliable indicator of student learning of each math skill. Our team mentor agreed, so we revised our plan for assessing mathematical reasoning.

Our new plan involves using the final exam for only the math courses that most students take. Math faculty have already matched the exam questions to the math skills to be assessed. An excel spreadsheet will be used to record the data and determine whether students have mastered each skill. Where deficiencies exist, math faculty can look for ways to improve student learning.

Focus of the Student Learning Project

General Education; Co-curricular/student affairs; Comprehensive Assessment System

Degree Level

Associate Degree

Assessment Activities

Creating data collection instrument(s); Collecting data; Analyzing data; Using data to implement change

Organizational Areas Involved

1.All academic departments:

- -Applied Technologies
- -Business Education
- -English
- -Health and Public Service
- -Humanities
- -Life Science
- -Mathematics
- -Physical Science
- -Social Science
- 2. Student Services

Desired results from the project

Our desired result is to have a flexible template for evaluating our Communication goal and a process/formula for evaluating our Mathematical Reasoning goal. We also need for faculty from disciplines across campus to be included in the use of these tools and processes. Furthermore, we want to use these tools to find out how well John A. Logan graduating students perform in these areas. Finally, we need to report this information to internal and external stakeholders.

Planning and Managing the Student Learning Project

1. Identify the courses in the academic degree and certificate programs that use mathematical reasoning and/or communication skills using the existing document inventory.

2. Using the existing skill sets listed in the left hand column of the implementation documents for mathematical reasoning and the final exams for MAT 120 and MAT 113, a spreadsheet will be created for recording each student's score for each math skill to be assessed.

3. Pilot this template and process in identified courses using communication and mathematical reasoning skills.

4. Analyze the process and the data and revise the institutional communication and mathematical reasoning template and process as needed.

5. Retest the template and process, analyze and report the results to appropriate stakeholders. Revise pedagogy as needed.

6. Repeat the process with the remaining educational goals.

Monitoring Plan

We will monitor our plan using the steps listed above (see Planning and Managing the Student Learning Project).

1. By March 27, 2009 - all courses teaching to these two goals will be identified.

2. August 31, 2009 - the math spreadsheet will be created and data from Fall 08 will be used to pilot the project. Data will be collected from Spring 09 for the oral communication template.

5. By December 20, 2009 - the template and process will be retested on a slightly larger scale.

6. By May 15, 2010 - the process will be in place and ready to be used for other educational goals.

Evidence of Success

One indicator of success in the area of communication will be participation of faculty across campus. To start, it would be good if at least one faculty from every academic discipline used the template for a writing assignment and then provided us with the data for analysis. For oral communication, the goal is to have at least three academic departments submit use the template and submit data.

In the area of math, an indicator of success would be having the spreadsheet in place and data analyzed from at least two semesters.

Products Resulting from the Student Learning Project

The written and oral communication templates are products of this project.

Project Links

Oral Communication Rubric: http://www.jalc.edu/assessment initiative/pdfs/rubric oral communication.pdf

<u>intp://www.jaic.edu/assessment_initiative/purs/tubric_orai_communication.</u>

<u>Written Communication Rubric</u>: http://www.jalc.edu/assessment_initiative/pdfs/rubric_written_communication.pdf

<u>Mathematics Skill Sets:</u> <u>http://www.jalc.edu/assessment_initiative/pdfs/skill_sets_mathematical.pdf</u>

<u>Communications Skill Sets:</u> <u>http://www.jalc.edu/assessment_initiative/pdfs/skill_sets_communication.pdf</u>

Accomplishments

One accomplishment has been getting faculty together to pilot our first draft at a rubric. Unfortunately, what we learned was that we needed revision of the tool itself before we could actually move forward.

The next accomplishment was the template that we will now use for written communication.

Additionally, two speech communication faculty members have helped us construct an oral communication template.

Next Steps

Academy Team members will help collect communication artifacts and templates for the next several weeks.

The team will work with math faculty to create the spreadsheet and input data from Fall 08.

Engagement

A total of about thirty faculty and staff members helped to create the rubrics to measure communication and mathematical reasoning skills in students at JALC.

Other faculty have contributed student artifacts to be evaluated by these rubrics.

Two math faculty took on the task of planning the formula for assessing the mathematical reasoning goal. Math faculty have now worked to match the exam questions to the math skills and collect old exams for analysis in order to pilot the new project.

Challenges

One challenge is getting enough faculty to participate so that we have valid data.

Another challenge is going to be how exactly we compile and compare the data on communication when the criteria will be weighted differently in different courses. In other words, how do we make it meaningful?

The final challenge is reporting and using the assessment data once we have it.