

Degree Learning Outcome Communication- Information/Information Technology (DLO COM/IIT) Assessment Task Force Part 1 – Process

The task force consisted of Camille Lowman, Lynn Walrath, Jim Wiek, Lee Sledd, Pam Costa, Rachel Goon, Heather Urschel-Speir, Blaine Hunt, Ken Fox, and Katie Gulliford. The task force was convened by Kim Rzeszewicz. Below will be a summary of our meetings and the outcomes of those meetings.

July 18 and 19, 2011

The goal of our first two meetings was twofold. First, we needed to decide how we wanted to assess communication and information/information technology. Second was to decide what type of assignment we were going to assess. Third, we needed to draft a rubric that would allow us to assess two Degree Learning Outcomes: Communication (Written/Oral) and Information/Information Technology.

Because these were Degree Learning Outcomes, we decided on some parameters regarding how assignments would be selected. These parameters included:

- Select 1-2 higher level courses in each distribution area and each professional technical program that most students will take when close to graduation
- Each course will submit research-based assignments for either:
 - essay
 - annotated bibliography
 - oral presentation
- The assignment should be embedded in the course already. Instructors would not be required to create a new assignment for this project.
- Assignments scanned in for every student to a joint network drive (or forward electronic submissions)
 - These assignments would then be randomly sampled and assessed using a rubric.
- Data collected and reported would be aggregate and would not be presented as individual classes or programs.

Once parameters for how we would select assignments to assess were complete, we set out to make a rubric that could be used regardless of assignment. We split into small groups and created individual rubrics. Then, as a full group, we discussed our

individual rubrics and came to a consensus on a draft rubric. The draft rubric can be found in Appendix A.

Once this draft rubric was created, we did a beta-test of the rubric. We exchanged assignments from our classes within the Task Force.

September 12, 2011

We met to discuss the beta testing of our draft rubric and to plan for the Professional Development Day presentation. Through this process, we were able to finalize our rubric and do some initial norming using assignments from within the Task Force.

September 14, 2011

The work we had done so far was presented to the faculty during Professional Development Days. Some faculty in the audience voiced concern regarding privacy issues, especially in regards to the oral presentations. As a group, we emphasized that everything would be anonymous and that the assessment should not place any extra burden on instructors; the assignments to be collected should be embedded in the course already.

Fall 2011 and Winter 2012 Quarters

Kim Rzeszewicz sent an email to Department and Program Chairs to get them to select courses that would participate in the assessment. These assignments would be collected during Winter quarter.

April 19, 2012

The primary purpose of the meeting was to discuss how we would assess the assignments that were turned in. During the meeting, a subcommittee was formed to determine the process for the random sampling of assignments, and a decision of how many assignments each person would assess. We also came up with a plan for our summer meetings. After this meeting, Lynn ultimately came up with a random sample for assessment, as well a list of what assignments each committee member would assess. A sample of 160 assignments out of over 800 was chosen randomly.

June 18, 2012

The first two hours of the summer meeting was to use our rubric to assess common assignments and to norm the rubric. The norming session was led by Heather Urschel-Speir. As a group, we decided that as long as everyone fell within one “point” of each other, our rubric was working effectively. During this process,

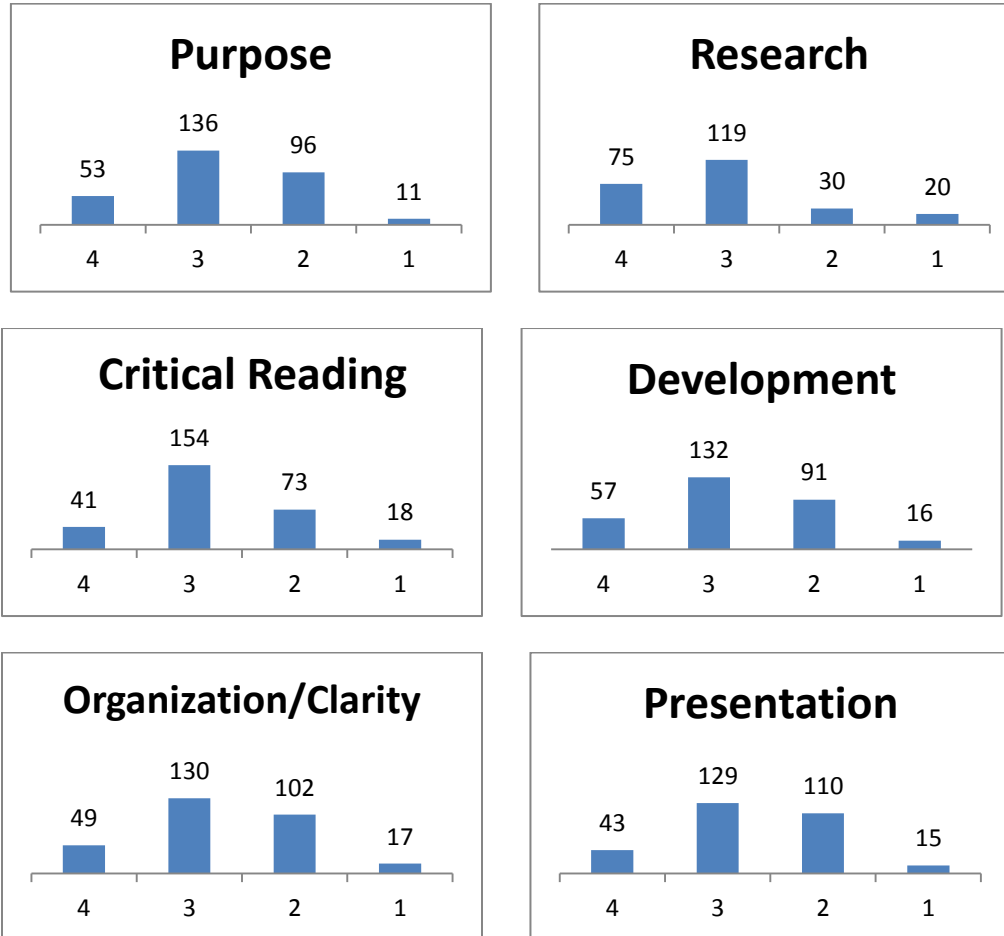
however, we ended up adjusting the rubric slightly. We separated the “Research” portion of the rubric into two separate criteria: “Research” and “Critical Reading”. The final version of the rubric can be found in Appendix B. The rest of the meeting time was used to assess our random sample of assignments individually.

June 28, 2012

This meeting was primarily a discussion of what worked and what didn’t work throughout the process, planning for Professional Development Days, and planning for writing the report. A document about process can be found in Appendix C. Heather, Lynn, and Pam will do the reporting during professional development days. Katie and Lynn were chosen to write the report.

Part 2 – Results

The distributions for each of the six categories scored on campus writing assignments follow a fairly normal distribution as shown by the charts. The Likert Scale used was 4 as the highest and 1 as the lowest possible score.



The descriptive statistics for each category are listed in the table below.

	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
Mean	2.78	3.02	2.76	2.78	2.71	2.67
Median	3	3	3	3	3	3
Mode	3	3	3	3	3	3
Standard Deviation	0.778	0.872	0.772	0.818	0.807	0.783

Correlations between the categories showed no strong linear relationships between any pair of categories.

Hypothesis testing was done to determine if there was evidence at the 90% level that more than 50% of students scored at or above an acceptable level in each category (a 3 or 4 on the rubric.) In each category there was strong evidence to show that more than 50% of students score at or above an acceptable level. The results are summarized in Appendix D.

There was also strong evidence to show that more than 70% of students scored at or above acceptable levels in Research. There was not strong evidence to show that more than 70% of students scored at or above acceptable levels in any of the other 5 categories. The results are summarized in Appendix D.

When looking at Research and Critical Reading, there is strong evidence that students' critical reading skills are stronger than their research skills as they near degree completion at TCC. The p-value is close to 0.

We further broke out the campus writing assignments into two categories. In one category were assignments from courses for which English 101 is a prerequisite. In the other category were assignments from courses for which English 101 is not a prerequisite. We then looked at the means for each category to see if there is sufficient evidence to show that the means are different given the pre-requisite of English 101.

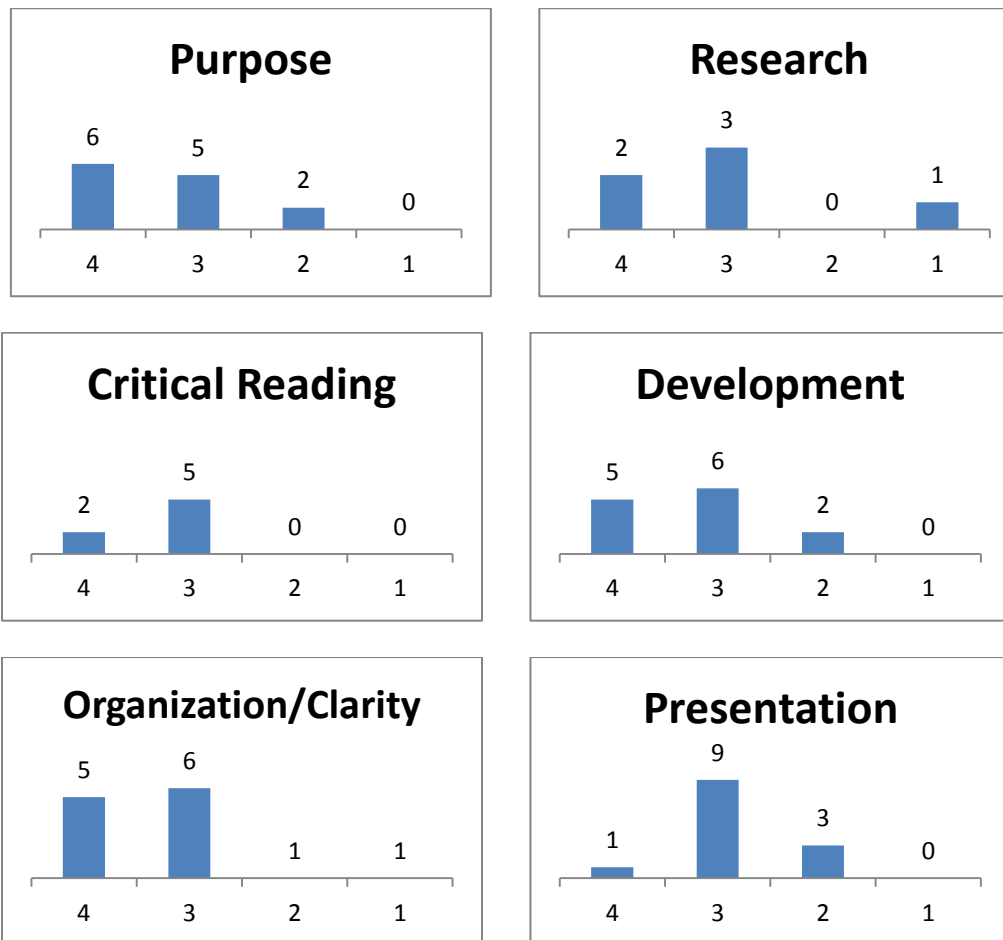
The following tables give the basic descriptive statistics for each category:

English 101 Pre-Requisite						
	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
Mean	2.91	3.11	2.90	2.87	2.83	2.77
Median	3	3	3	3	3	3
Mode	3	3	3	3	3	3
Standard Deviation	0.764	0.782	0.690	0.774	0.760	0.752

English 101 NOT Pre-Requisite						
	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
Mean	2.62	2.94	2.61	2.68	2.55	2.56
Median	3	3	3	3	3	3
Mode	3	3	3	3	3	3
Standard Deviation	0.790	0.942	0.809	0.882	0.844	0.805

Hypothesis tests were performed to see if there is sufficient evidence that campus writing assignments resulting from courses with English 101 as a prerequisite score higher than those from courses for which English 101 is not a prerequisite. There is strong evidence that scores are higher in all of the categories at a 90% level. The results are summarized in Appendix D.

The distributions for each of the six categories scored on oral communication assignments do not follow a normal distribution. Sample sizes are quite small as the sample did not have many oral presentations from which to randomly choose.



The descriptive statistics for each category are listed in the table below.

	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
Mean	3.31	2.57	3.29	3.23	3.15	2.85
Median	3	3	3	3	3	3
Mode	4	3	3	3	3	3
Standard Deviation	0.751	1.008	0.488	0.725	0.899	0.555

Appendix A

Draft Rubric

Tacoma Community College					
COM/IIT Degree Learning Outcomes					
	Exceeding Expectations	Meeting Expectations	Approaching Expectations	Expectations Barely/Not Met	N/A
Purpose	Demonstrates sophisticated understanding of context and audience. Includes refined thesis or focus.	Demonstrates adequate consideration of context and audience. Includes clear, defined thesis or focus.	Demonstrates minimal consideration of context and audience. Includes thesis/focus that is unclear and poorly defined.	Demonstrates no consideration of context and/or audience. Thesis/focus is unclear or absent.	
Research	Chooses resources that are fully appropriate to the assignment; shows mastery of critical reading (evaluation and comprehension of supporting research)	Chooses resources that are mostly appropriate to the assignment; shows evidence of critical reading (evaluation and comprehension of supporting research)	Resources are minimally appropriate to the assignment; shows little evidence of critical reading (evaluation and comprehension of supporting research)	Resources are not present and/or not appropriate to the assignment; shows no evidence of critical reading	
Development	Fully maintains and supports the purpose through to conclusion	Mostly maintains and supports the purpose through to conclusion	Minimally maintains and supports the purpose through to conclusion	Does not support purpose through to conclusion	
Organization / Clarity	Follows sophisticated, logical and cohesive organization	Follows mostly logical and cohesive organization	Follows some logical and cohesive organization	Follows no cohesive organization	
Presentation (Written)	Written: Uses sophisticated grammar, mechanics (spelling, punctuation, etc.), voice, and academic style with few or no errors	Written: Uses appropriate grammar, mechanics (spelling, punctuation, etc.), voice, and academic style with few clarity-affecting errors	Written: Uses grammar, mechanics, voice, and academic style with multiple errors affecting clarity	Written: Uses grammar, mechanics, voice, and academic style with multiple errors seriously affecting clarity	
Presentation (Oral)	Oral Presentation: Speaks clearly with well polished delivery (dynamics, non-verbal, inflection, engages audience, professional appearance)	Oral Presentation: Speaks clearly with appropriate delivery (dynamics, non-verbal, inflection, engages audience, professional appearance)	Oral Presentation: Delivery techniques (dynamics, non-verbal elements, inflection, audience engagement, professional experience) detract from understandability of the presentation	Oral Presentation: Delivery techniques are unpolished and render presentation ineffective	

Appendix B

Final Rubric

Tacoma Community College COM/IIT Degree Learning Outcomes					
	Exceeding Expectations (4)	Meeting Expectations (3)	Approaching Expectations (2)	Expectations Barely/Not Met (1)	N/A
Purpose	Demonstrates sophisticated understanding of context and audience. Includes refined thesis or focus.	Demonstrates adequate consideration of context and audience. Includes clear, defined thesis or focus.	Demonstrates minimal consideration of context and audience. Includes thesis/focus that is unclear and poorly defined.	Demonstrates no consideration of context and/or audience. Thesis/focus is unclear or absent.	
Research	Chooses resources that are fully appropriate to the assignment	Chooses resources that are mostly appropriate to the assignment	Resources are minimally appropriate to the assignment	Resources are not present and/or not appropriate to the assignment	
Critical Reading	shows mastery of critical reading (evaluation and comprehension of supporting research)	shows evidence of critical reading (evaluation and comprehension of supporting research)	shows little evidence of critical reading (evaluation and comprehension of supporting research)	shows no evidence of critical reading	
Development	Fully maintains and supports the purpose through to conclusion	Mostly maintains and supports the purpose through to conclusion	Minimally maintains and supports the purpose through to conclusion	Does not support purpose through to conclusion	
Organization / Clarity	Follows sophisticated, logical and cohesive organization	Follows mostly logical and cohesive organization	Follows some logical and cohesive organization	Follows no cohesive organization	
Presentation (Written)	Written: Uses sophisticated grammar, mechanics (spelling, punctuation, etc.), voice, and academic style with few or no errors	Written: Uses appropriate grammar, mechanics (spelling, punctuation, etc.), voice, and academic style with few clarity-affecting errors	Written: Uses grammar, mechanics, voice, and academic style with multiple errors affecting clarity	Written: Uses grammar, mechanics, voice, and academic style with multiple errors seriously affecting clarity	
Presentation (Oral)	Oral Presentation: Speaks clearly with well polished delivery (dynamics, non-verbal, inflection, engages audience, professional appearance)	Oral Presentation: Speaks clearly with appropriate delivery (dynamics, non-verbal, inflection, engages audience, professional appearance)	Oral Presentation: Delivery techniques (dynamics, non-verbal elements, inflection, audience engagement, professional experience) detract from understandability of the presentation	Oral Presentation: Delivery techniques are unpolished and render presentation ineffective	

Appendix C
CHALLENGES AND STRENGTHS OF
COM/IT DEGREE LEARNING OUTCOMES PROJECT

2011-12

Challenges:

1. 'Research' means different things in different disciplines
 - a. Natural sciences mean conducting lab experiments
 - b. Humanities tends to use critical analysis of primary sources, use their peers' words about literature
 - c. Many disciplines do not have students locate outside resources and/or document these resources
 - d. Tend to be few footnotes or citations, unable to tell if students writing in own words or plagiarizing
2. 'Communication' means different things in different disciplines
 - a. Math and Engineering use mostly symbols rather than narrative text
 - b. Humanities communicate through various art forms. HUM courses do require writing
3. Not many disciplines require a research-based essay or presentation. Resulted in course selection being limited.
 - a. Some (humanities) require analytical writings rather than using outside resources
 - b. Tend to be labor intensive for faculty
 - c. Not all disciplines got involved as there are not many courses that consistently require a writing assignment, it tends to be instructor specific
4. Difficult to identify students at end of degree, especially in distribution areas of Assoc of Arts & Science.
 - a. Have more captive audience in some Assoc of Applied Science degrees
 - b. Approximately ½ of the courses sampled required ENGL 101 as a prerequisite.
5. Difficult to get faculty involved—see this as one more thing to do
 - a. Took a LOT of effort to get faculty to submit assignments. Required a great deal of follow and nagging to get assignments. Some refused, some ignored all requests for assignments. One didn't think emails applied to him and suggested having a meeting for involved faculty rather than email communication.

- b. Difficult to get faculty to upload (Kim finally had secretary do the naming convention and uploads, but didn't get the CMST/ENGL about students this way)
 - c. Didn't get as many ENGL 102 sections to contribute as would have liked
 - d. Concern over student confidentiality and use of assignments (FERPA concerns)
- 6. When W&O Comm is analyzing whether or not the student has benefitted from completing CMST or ENGL prior to completing the assignment, we have no evidence of whether the CMST or ENGL courses were completed at TCC or elsewhere.
- 7. Rubric use outside of DLO COM/IIT Task Force—some programs adapted the rubric with mixed results
 - a. Considered too vague, non specific
 - b. Suggested that Rubric should have numbered columns for ease in aggregating and collating data
- 8. Some assignments could be written in a way to be more specific and give clearer directions to students. Is difficult to evaluate student work when assignment given them is poorly written.
- 9. Quality of Work:
 - a. Noted many issues around integrating research into own writing
 - b. There was some really low level writing. On the outset it appeared as though these were courses without ENGL 101 prerequisites, but upon closer examination many were in ENGL 102 and other courses with ENGL 101 prerequisite.
 - c. Unable to determine the accuracy of the content of the assignment, can't go beyond face validity of content.
- 10. Process:
 - a. Naming convention was not consistently followed making it difficult to track assignments. Also, not all faculty submitted instructions given to the students so was difficult to know if student was following assignment.
 - b. Uploading assignments to the DLO Sharedrive was a very complicated and time consuming process.
 - c. In some cases faculty uploaded drafts and final versions of the same assignment. Only wanted final versions.
 - d. Process for locating and printing the assignments from the DLO Sharedrive was also a tedious and time-consuming process.

- e. Process of creating the sample was time consuming because of the organization of the Sharedrive and the inconsistent use of the naming convention.
- f. Norming was maybe too quick and could have been more extensive. Maybe identify specific markers that signal negative and positive factors in each category?

11. Rubric application:

- a. Was more difficult to apply the rubric to presentations than written assignments.
- b. Some presentations and assignments were done as a group. Made it difficult to apply the rubric which was designed for individual work.
- c. Rubric didn't include a row to evaluate whether or not the student had followed the assignment instructions
- d. For the rubric research category, was tempted to evaluate more than just the appropriateness of the chosen sources.

Appendix D

Result Summaries

1. Hypothesis testing on proportion of written assignments scoring 3 or 4.

$$H_0: p = 0.5$$

$$H_a: p > 0.5$$

	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
x	189	194	195	189	179	172
N	296	244	286	296	298	297
Sample prop.	.639	.795	.682	.639	.601	.580
p-value	9.4×10^{-7}	1.52×10^{-20}	3.89×10^{-10}	9.4×10^{-7}	2.5×10^{-4}	0.003

2. Hypothesis testing on proportion of written assignments scoring 3 or 4.

$$H_0: p = 0.7$$

$$H_a: p > 0.7$$

	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
x	189	194	195	189	179	172
N	296	244	286	296	298	297
Sample prop.	.639	.795	.682	.639	.601	.580
p-value	.990	5.95×10^{-4}	.749	.990	.999	.999

3. Hypothesis testing on difference of means for written assignments from courses with English 101 as a pre-requisite and courses without English 101 as a pre-requisite.

	Purpose	Research	Critical Reading	Development	Organization/Clarity	Presentation
H_0	$\mu_1 = \mu_2$	$\mu_1 = \mu_2$	$\mu_1 = \mu_2$	$\mu_1 = \mu_2$	$\mu_1 = \mu_2$	$\mu_1 = \mu_2$
H_a	$\mu_1 > \mu_2$	$\mu_1 > \mu_2$	$\mu_1 > \mu_2$	$\mu_1 > \mu_2$	$\mu_1 > \mu_2$	$\mu_1 > \mu_2$
<i>p - value</i>	9.417×10^{-4}	0.071	0.001	0.028	0.002	0.012

Conversation with All Faculty Regarding Results of Project

Sept. 20, 2012

What do the results tell us? Are they consistent or inconsistent with the program learning outcomes project results?

1. Results are consistent with those seen by Librarians. There is a continuing need for faculty to provide clear instructions for assignments, provide scaffolding of skills (building from unit to unit, or course to course). Librarians are available to assist faculty in development of assignments and in locating appropriate resources for students.
2. When librarians have been utilized to teach research skills to classes of students, students are able to provide “upper division” level work (Art).
3. Research-related outcomes for Dev. Ed. and college level English courses generated by librarians resulted in redesigning of English Composition classes. This has resulted in the development of the Reading, Writing, and Research Across the Curriculum (RRAC project).
4. All sections of English 101 will now require only 3 essays (instead of 6+) to allow students and faculty to focus on the writing PROCESS, rather than volume of work. All sections will teach the APA citation process, as well as contextualize the learning.

Questions:

1. How many disciplines were represented in the DLO COM/IIT project? 1 course from each prof/tech area and 2 from each distribution area. N=800+ assignments, n=160 random samples evaluated
2. Did all the courses used require English 101 as a prerequisite? No, it was not possible to do that because many prof/tech programs do not require English 101 as a prerequisite, and neither do many 100 and 200 level courses in transfer areas
3. How will the report be made public? It will be posted in the portal and distributed to faculty via email.

Future:

1. Possible strategies:
 - a. more faculty collaboration with librarians
 - b. faculty use resources to improve development of writing assignments (Writing and Tutoring Center tutors, librarians, other faculty outside their discipline to review assignments, Instructional Designer/Faculty Trainer, SLIC, reference desk, etc.)

- c. continue to work on writing across the curriculum, not just in English 101
- 2. Should more courses on campus require English 101 as a prerequisite?

Big Question Yet to be Discussed:

What would be an appropriate benchmark for students being able to write at the competent level? Is 50% of our students adequate?