INSTITUTION ASSESSMENT of Communication GEO-Read Final Report

BACKGROUND

Institutional learning is defined as progress toward becoming an institution where learning is the expected norm for all members of the community. In such an institution, faculty, administrators, and staff all continue to learn and grow in ways that support increased student learning. Institutional Outcomes Assessment is about the interaction between individual learning and institutional learning—how an individual can contribute to changing a campus culture, which in turn supports and encourages change by colleagues across campus.

The Communication General Education Outcome (GEO) is defined as the ability to effectively interchange ideas and information with diverse audiences and to act within the framework of a society based on information and service. This assessment will encompass the foundational skills of this GEO, which are identified as those abilities to effectively read, write, listen, speak, and/or sign. This assessment project focused specifically on the reading portion of the Communication GEO.

ASSESSMENT DESIGN

The agreed upon GEO assessment rubric was initially developed by the rubric work group, comprised of the group liaison and faculty members from Reading, English, and Math, in summer of 2011 and finalized in fall of 2011 (see Appendix 1). It includes the criteria elements, achievement descriptors, and specific standards for each element at every achievement level. A details page has been included and includes agreed upon descriptors and information to clarify the assessment practice for evaluators.

The appropriate student artifacts for use with this rubric were also identified by the assessment work group: Students may read literature, world problems, content-specific textbooks, essays, short stories, or articles. Student would demonstrate their comprehension of the aforementioned texts by writing a response paragraph, summary, reflective, analytic, or argumentative essay, research paper, completing textbook exercises, responding to questions or prompts, or solving math equations.

In the spring of 2012 an assessment work group was formed with the group liaison, and a new set of faculty members from Reading, Math, and English. At this time the Director of Research provided several options for course sampling in spring 2012 for the assessment of this GEO. Upon review and discussion the assessment work group has decided that the following sampling was most appropriate to assess reading at the intuitional level since this sampling will allow student work across multiple disciplines to be assessed, thus establishing a broad view of student learning as concerned with reading in the general education outcome.

The sampling included sections from the following disciplines:

- 1) 9 sections from English (out of 140, ~37% of the total number of sections)
- 2) 7-8 sections from Math/Statistics (out of 113, ~30%)
- 3) 5 sections from Speech/Philosophy (out of 91, ~20%)
- 4) 3-4 sections from Reading (out of 48, ~13%).

Per the assessment work group's request, the math representative only assessed math artifacts while the reading and English representative only assessed reading and English artifacts. (The Communication Studies department declined to participate in submitting and assessing artifacts.)

Using the sampling framework as a guide, a list of courses being taught in Spring 2012, and the random number generator provided by Random.org (at <u>http://www.random.org/integers/</u>), sections were identified from the Research Office (see Appendix 2) from which relevant artifacts (as identified by the other work of the Reading GEO workgroup) should be randomly selected for assessment.

IMPLEMENTATION

The ASLO subcommittee contacted the department heads of the areas included in the sample in spring of 2012 to garner participation from the faculty in the way of providing student work to be assessed. Of the areas in the sample, the Speech (now called Communications) and Philosophy areas reported back that they did not wish to participate. The English, Math, and Reading departments agreed to participate.

Of the twenty-four classes of the participating departments in the sample, the group liaison contacted those instructors via email on several occasions and ultimately was able to obtain student artifacts from nine classes.

The assessment group met over the summer to utilize the rubric and assess the student artifacts received. As mentioned, there was one rater each from Reading, English, and Math. The group agreed that the Math rater would only rate math artifacts while the Reading and English raters would rate Reading and English artifacts. The group liaison sorted the artifacts by discipline, removed any student identification or grading information, and randomly sorted the artifacts for each rater including a small sampling of the same artifacts for the purpose of inter-rater reliability.

The raters first assessed the inter-rater reliability student samples and participated in a norming session group meeting to ensure the rubric was being utilized in the same manner by each rater. In this meeting, the Math rater expressed concern in applying the rubric categories of "Inferential Meaning Drawing Conclusions" and "Critical Analysis" to samples of math work so it was decided that the Math rater would only utilize the "Literal Meaning" and "Application" portions of the rubric for the rating exercise.

After the raters individually assessed their own set of student work, the raters met again to discuss their conclusions and have provided the following insights and suggestions to the subcommittee about the experience of developing the rubric, selecting the sampling frame, garnering participation, and assessing the student artifacts.

- Review past work that has been completed on intuitional outcomes before the group creates new materials (rubric or process).
- Have a face-to-face meeting with the works group in the beginning to establish tasks and a timeline for deadlines.

- Narrow the scope of the assignment. Ensure that instructors provide both the student work and the reading portion of the assignment to which students responded which can include an essay prompt or reading assignment. It was very difficult to assess some artifacts without having those materials.
- It definitely helped to have the "practice" round and then a face-to-face meeting to discuss our scores before we did the actual assessment. It helped sort out how we were all interpreting the rubric, and helped me see where my own ideas/priorities were not lining up with what was on the rubric. As an instructor from a different discipline than the artifacts we were assessing, it also helped me to see how the Reading Department articulated its values through their rubric. To that end, it was also very helpful having a reading instructor as part of our committee.
- I feel like it is necessary to have a copy of the assignment, along with the student artifact, for all artifacts. In the few cases where an assignment was not provided, it was difficult to fully assess the student's response. Specific to the reading classes, my sense, too, was that a few different instructors had similar-but-not-exactly-alike questions about the same article, so without a copy of those questions, I found myself assuming that the student had answered the questions incorrectly, or had misunderstood the questions altogether, in comparison with whichever artifact had included the questions.
- The assessment rubric is best designed for 'reading' and it is probably not the best design for assessing 'reading of math word problems'. I would prefer a 'rubric' specific to 'reading of math word problems' based on reading, understanding, interpreting, applying, setting math equations, using variables, solving using correct techniques, arriving answers relevant to the questions asked, and writing a complete sentence for the answer.
- For the future assessment of math word problems, it would be helpful to have assignments with word problems in each assignment.

The group liaison tallied the assessment results and sent it to the Office of Institutional Effectiveness, which utilized that information to create a research brief (see Appendix 3).

FINDINGS and RECOMMENDATIONS

After examining the Institutional Effectiveness research brief, the following conclusions have been made:

• The rubric itself proved not to be a successful tool in assessing the reading artifacts since as cited in the Instructional Effectives brief as well as from anecdotal comments by the assessment work group, the rubric categories are too similar to produce results that are useful in terms of finding out if LBCC students are effectively reading. For future work of this type, it is suggested to re-design the rubric to make each category more distinct from one another. There was discussion in the assessment group about how the Inferential Meaning and Critical Analysis categories could be combined.

- As the Math rater did not utilize two of the categories in assessing the artifacts, future work with this outcome may wish to consider removing Math as a discipline from which to collect samples or to create a separate rubric for the assessment of math student work. Furthermore it was suggested that any math artifacts collected for this purpose feature word problems.
- As aforementioned, since the Inferential Meaning and Critical Analysis rubric categories were similar in the eyes of the raters, many student artifact scores were rated as the same in these two categories, again speaking to the need to collapse or better differentiate these categories and descriptions.
- As cited in the Institutional Effectiveness report, the results of the assessments demonstrated that the vast majority of students assessed as adequate or higher for each of the four dimensions (86% to 97). This finding seems inconsistent with the variety of skill level and work demonstrated by students at the college, which may demonstrate that 1) the rubric as a tool is not effective, and/or 2) the sampling of student artifacts did not encompass an appropriate breadth.
- For future projects involving collecting student artifacts from faculty members, it is suggested that a wider sample of classes are generated using the random method since it is very difficult to secure artifacts from faculty. The idea behind this suggestion is that if more classes are generated in the sample, more work can be collected for the purpose of assessment.
- Although the data demonstrate that more than 50% of students assessed as Good or better for each of the four rubric categories, the question as to if this represents an acceptable level of achievement cannot be answered due to issues with the rubric itself and the fact that the Math rater only utilized two rubric categories.

Communication GEO Reading Rubric

Appendix 1

Depending upon the task, project or assignment the student will ...

Score	ing upon the task, project or assignme Literal Meaning	Inferential Meaning	Critical Analysis	Application
		Drawing Conclusions	•	••
5 Superior	Clearly state the central idea, main idea or theme in a single sentence. A summary of the author's main points, arguments or issues, including major supporting details or evidence, can be identified and utilized. Relevant facts and/or research evidence are identified correctly . All technical, college level vocabulary is understood and used correctly in the summary.	Use the evidence or facts presented by the author to draw inferences or valid conclusions with complete accuracy .	Accurately identify the author's theory or primary purpose for writing and any of the author's bias used in the writing.	Correctly identify and address ALL components of the task, project, or assignment. Precisely and accurately use supporting evidence from the reading to form appropriate responses.
4 Good	Correctly identifies the topic and is able to paraphrase a central idea, main idea or theme that generally reflects the author's point. Most major details are identified along with relevant facts and/or research. Technical, college level vocabulary is present and used correctly most of the time.	Use the evidence or facts presented by the author to draw inferences or valid conclusions with a high level of accuracy.	With a high degree of accuracy , identify the author's theory or primary purpose for writing, but may need assistance identifying subtle forms of bias used in the writing.	Correctly identify and address most components of the task, project, or assignment. Thoughtfully use supporting evidence from the reading to form appropriate responses.
3 Adequate	Correctly identifies the topic, but may struggle to clearly state the main idea. Most major details and relevant facts or research are identified, but there are a few omissions . Key technical college level vocabulary is present and used correctly most of the time.	Draws some valid inferences or conclusions based on evidence or facts presented by the author, but will also make mistakes by relying on personal interpretations not supported by the evidence presented in the text.	In general terms , identify the author's theory or primary purpose for writing, but needs scaffolding and assistance identifying subtle forms of bias used in the writing.	Identify and address most components of the task, project, or assignment—there may be some errors . With some accuracy use supporting evidence from the reading to form appropriate responses
2 Poor	Identify a topic, but is unable to state the main idea. Some major details and relevant facts or research are identified, but there are obvious omissions . Key technical college level vocabulary is either not present and/or used incorrectly .	Draws invalid inferences or conclusions based on personal interpretations not supported by the evidence presented in the text.	Be unable to identify the author's theory or primary purpose for writing, with some assistance. The student may be unaware of any forms of bias the author may have used in the writing	Identify and address some components of the task, project, or assignment—there will be multiple errors . Use supporting evidence from the reading to form responses, though some of the evidence may not be appropriate to the response.
1 Insufficient	Identify a supporting detail as the main idea. Major details and relevant facts or research are missing. The vocabulary used does not reflect technical college level vocabulary.	Does not attempt to draw inferences or conclusions, or not be able to support inferences or conclusion with evidence presented in the text.	Be unable to identify the author's theory or primary purpose for writing, even with prompting. The student is unaware of any forms of bias the author may have used in the writing.	Identify and address a few components of the task, project, or assignment—there will be gaps and errors . There may not be supporting evidence from the reading to form appropriate responses,
N/A				

I. Literal Meaning

- A. Identify and state the Central Idea (the big topic, theme, theory, purpose, or major idea covered throughout the entire article, passage, or chapter).
- B. Be able to identify and paraphrase the main ideas and major supporting details (evidence) for main ideas.
- C. Correctly summarize the author's main points, arguments, or issues.
- D. Be able to discern and identify facts and research evidence the author presents.
- E. Be able to understand technical and college level vocabulary.

II. Inferential Meaning and Drawing Conclusions

- A. Where applicable, be able to identify and discern opinions from facts.
- B. Where applicable, be able to identify and discern the author's tone and bias.
- C. Where applicable, be able to correctly infer the author's implied messages.
- D. Where applicable, be able to draw valid conclusions based on the facts presented.
- E. Where applicable, be able to articulate how factual evidence led to conclusions drawn.

III.Critical Analysis

- A. Identify the author's theory or primary purpose for writing and bias.
- B. Identify fallacies in persuasive writing (in particular, what an author chooses to emphasize or leave out).
- C. Interpret literary elements and poetic devices (metaphor, personification, hyperbole, analogy, etc.).
- D. Show information competency by analyzing the evidence and discern if it is current and relevant.
- E. Analyze the source from which the evidence is procured and recognize credible and reliable sources.

IV. Application of Reading

- A. Be able to correctly identify and address project, task, or assignment components.
- B. Use critical thinking and be able to transfer the knowledge of the author's message from the reading passage to the task, project, or assignment at hand.
- C. Use the supporting evidence from the reading to form responses for a task, a project, or an assignment.

Appendix 2

Sampling Frame for Reading GEO

From the English category:

	, ,	1	1	T
30349	T Th	01:00:PM - 02:50:PM	LAC-T1319	Chao, G
30359	MW	06:00:PM - 07:50:PM	LAC-P109	Danielo, J
30365	T Th	07:00:PM - 08:50:PM	LAC-P123	Sims, H
31465	MW	04:00:PM - 05:50:PM	LAC-P104	Danielo, J
31729	T Th	07:00:PM - 08:50:PM	PCC-MD117	DeFrance, R
33314	M W	02:00:PM - 03:50:PM	PCC-MD102	Dumars, D

English 1, 1H: 6 sections

English 3, 3H: 3 sections

30528	MW	05:00:PM - 06:50:PM	LAC-P121	Montagne, L
31577	T Th	03:00:PM - 04:50:PM	LAC-T1324	Dunn, J
30521	T Th	08:00:AM - 09:50:AM	LAC-T1318	Shannon, M

* If any of the selected sections elects not to participate for any reason, additional sections from English1, 1H or English 3, 3H could potentially be used to replace that section at the discretion of the ASLO Subcommittee and the relevant Department Heads.

From the Math category:

Math 40: 1 section

33395	M W	10:30:AM - 11:45:AM	PCC-MD110	Mudunuri, B
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Math 45: 1 section

31040	M W	05:00:PM -	LAC-D119	Essayli, M
		06:50:PM		

Math 80: 1 section

31571	T Th	07:30:PM - 09:50:PM	LAC-D135	Ryan, J

Math 84: 1 section

31051 T Th	09:00:AM -	LAC-D112	Nasab, M
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10:45:AM	
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Math 130: 3 sections

31082	TBA	TBA	WEB	Anand, B
31090	MW	02:00:PM - 04:15:PM	LAC-D101	Nguyen, S
31829	MW	09:30:AM - 10:45:AM	LAC-D112	Bell, L

Statistics 1: 1 section

* If any of the selected sections elects not to participate for any reason, additional sections from Math 40, Math 45, Math 130, 130A, 130B, or Stats 1 could potentially be used to replace that section at the discretion of the ASLO Subcommittee and the relevant Department Heads.

From the Speech/Philosophy category:

Speech 10: 2 sections

	- F				
32569	MW	09:00:AM - 10:15:AM	LAC-T1326	Manlowe, M	
31462	М	06:30:PM - 09:20:PM	LAC-T1338	Meade, E	

Speech 25: 1 section

30967	M W	07:00:PM - 09:50:PM	LAC-T1326	Simons, N
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Speech 60: 2 sections

32209	T Th	07:00:PM - 09:50:PM	LAC-T1338	Habash, S
33145	T W Th	01:00:PM - 03:50:PM	LAC-T2309	Misajon, C

* If any of the selected sections elects not to participate for any reason, additional sections from Speech 10, Speech 25, or Speech 60 could potentially be used to replace that section at the discretion of the ASLO Subcommittee and the relevant Department Heads.

From the Reading category:

Read 82: 4 sections

30591	M W	07:00:PM - 08:50:PM	PCC-MD114	Fletcher, D
30597	T Th	09:30:AM - 11:20:AM	LAC-L175	Hotra, T
31645	M W	08:00:AM - 09:50:AM	PCC-MD114	Blore, J

33082	T Th	03:30:PM - 05:20:PM	PCC-MD114	Fletcher, D
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* If any of the selected sections elects not to participate for any reason, additional sections from Read 82 could potentially be used to replace that section at the discretion of the ASLO Subcommittee and the relevant Department Heads.

Appendix 3



OFFICE OF INSTITUTIONAL EFFECTIVENESS RESEARCH BRIEF

4901 E Carson Street G-14 Long Beach, CA 90808

> (562) 938-4736 FAX (562) 938-4628 http://ie.lbcc.edu

> > June 19, 2013

Summary of Results for Oral Communication: Reading Component

In Fall 2012, three faculty members rated 69 student artifacts from English, Reading, and Math courses. Artifacts were rated on four dimensions by each rater on a score of one to five as follows (See Appendix A for complete rubric):

Four dimensions: Literal Meaning Inferential Meaning/Drawing of Conclusions Critical Analysis Application Scores 5 = Superior 4 = Good 3 = Adequate 2 = Poor 1 = Insufficient 0 = N/A

Rater 1 rated 20 artifacts, Rater 2 rated 18 artifacts, and Rater 3 rated 31 artifacts. Please note that Rater 3 indicated "N/A" for most of the dimensions in the majority of the artifacts rated. Thus, Rater 3's data were not included in this report. In addition, any artifacts that were scored as NA for all four dimensions were not included. This resulted in an N of 29 artifacts.

The Relationships Among Dimensions

The relationships among the four dimensions were examined to determine if any dimensions were highly related to each other (i.e., fluctuated together and could therefore be similar). Correlations range from -1 (a strong negative correlation, that is, as the scores on one dimension increase, scores on another dimension decreases at the same rate) to 1 (a strong positive correlation where, as scores on one dimension increases, scores on another increase at the same rate), with zero indicating no relationship between two dimensions at all (that is, knowing that scores on one dimension are increasing doesn't tell you whether scores on another dimension are increasing or decreasing).

Analysis of the four dimensions show that all six of the relationships were significantly correlated, indicating that these dimensions vary in a similar way and may perhaps be similar constructs (See Table 1).

	Literal Meaning	Inferential Meaning	Critical Analysis	Application
Literal Meaning				
Inferential Meaning	0.74*			
Critical Analysis	0.83*	0.74*		
Application	0.71*	0.73*	0.69*	

Table 1. Correlation of four dimensions

Additional analysis was run to determine if the four dimensions were assessing four similar aspects of a single dimension, in this case the Reading component of Oral Communication, rather than assessing four distinct dimensions. This concept is also known as internal consistency and is measured using Cronbach's Alpha. Cronbach's Alpha ranges from 0 to 1, with a higher number indicating greater internal consistency.

For the ratings on the 29 artifacts, the Cronbach's Alpha was 0.91. The high Cronbach's Alpha coupled with the correlations of the four dimensions shown in Table 1 suggest that the raters are using a highly unidimensional system for rating the artifacts. In other words, using four separate dimensions did not appear to produce additional useful data; thus, fewer dimensions could be used and yield the same results and require less time to complete. This may be an issue to consider in future rubric designs and implementations.

Data were not available to determine any relationships between the ratings of Rater 1 and Rater 2, also known as inter-rater reliability.

Ratings of Student Artifacts

The final analyses determined the performance of students on the four dimensions of the Reading component of the Communication GEO (See Table 2). The Overall Rating was calculated by taking the average of the ratings of the four dimensions for each artifact. For example, if an artifact was scored as 4 for Literal Meaning, 4 for Inferential meaning, NA for Critical Analysis and 3 for Application, the Overall Rating for that artifact would be 3.67. Students scored between Adequate and Good on all four dimensions as well as overall.

	Literal Meaning	Inferential Meaning	Critical Analysis	Application	Overall Rating
Average rating	3.95	3.66	3.63	3.48	3.58
Standard Deviation	0.90	0.90	1.07	1.02	0.92
Number of Artifacts	22	29	19	29	29

Table 2. Ratings of Student Artifacts

Tables 3, 4, and 5 provide counts of students in each score category, followed by the percentages of students in each category, followed by the cumulative percentages of students at that level or above (e.g., a cumulative percentage for Adequate would include students scoring Superior, Good, and Adequate). For the percentages, the denominator is the total artifacts with ratings. Overall, these assessments suggest that a substantial majority of the students assessed as Adequate or better for each of the four dimensions (86% to 97%). Furthermore, more than 50% of students assessed as Good or better for the Reading Component of the Communication GEO and 45% assessed as Good or better.

	Literal Meaning	Inferential Meaning	Critical Analysis	Application	Overall
Superior	7	5	4	3	2
Good	8	11	7	14	11
Adequate	6	12	6	8	11
Poor	1	0	1	2	4
Insufficient	0	1	1	2	1
Total rated artifacts	22	29	19	29	29
NA	7	0	9	0	
Missing rating	0	0	1	0	
Total artifacts	29	29	29	29	29

Table 3. Number of students in each score category

Table 4. Percentage of students in each score category

	Literal Meaning	Inferential Meaning	Critical Analysis	Application	Overall
Superior	32%	17%	21%	10%	7%
Good	36%	38%	37%	48%	38%
Adequate	27%	41%	32%	28%	38%
Poor	5%	0%	5%	7%	14%
Insufficient	0%	3%	5%	7%	3%
Total rated artifacts	22	29	19	29	29

Table 5. Cumulative percentage of students in or above each score category

	Literal Meaning	Inferential Meaning	Critical Analysis	Application	Overall
Superior	32%	17%	21%	10%	7%
Good	68%	55%	58%	59%	45%
Adequate	95%	97%	89%	86%	83%
Poor	100%	97%	95%	93%	97%
Insufficient	100%	100%	100%	100%	100%
Total rated artifacts	22	29	19	29	29

Appendix A

Score	Literal Meaning	Inferential Meaning Drawing Conclusions	Critical Analysis	Application
5 Superior	Clearly state the central idea, main idea or theme in a single sentence. A summary of the author's main points, arguments or issues, including major supporting details or evidence, can be identified and utilized. Relevant facts and/or research evidence are identified correctly. All technical, college level vocabulary is understood and used correctly in the summary.	Use the evidence or facts presented by the author to draw inferences or valid conclusions with complete accuracy .	Accurately identify the author's theory or primary purpose for writing and any of the author's bias used in the writing.	Correctly identify and address ALL components of the task, project, or assignment. Precisely and accurately use supporting evidence from the reading to form appropriate responses.
4 Good	Correctly identifies the topic and is able to paraphrase a central idea, main idea or theme that generally reflects the author's point. Most major details are identified along with relevant facts and/or research. Technical, college level vocabulary is present and used correctly most of the time.	Use the evidence or facts presented by the author to draw inferences or valid conclusions with a high level of accuracy.	With a high degree of accuracy , identify the author's theory or primary purpose for writing, but may need assistance identifying subtle forms of bias used in the writing.	Correctly identify and address most components of the task, project, or assignment. Thoughtfully use supporting evidence from the reading to form appropriate responses.
3 Adequate	Correctly identifies the topic, but may struggle to clearly state the main idea. Most major details and relevant facts or research are identified, but there are a few omissions. Key technical college level vocabulary is present and used correctly most of the time.	Draws some valid inferences or conclusions based on evidence or facts presented by the author, but will also make mistakes by relying on personal interpretations not supported by the evidence presented in the text.	In general terms , identify the author's theory or primary purpose for writing, but needs scaffolding and assistance identifying subtle forms of bias used in the writing.	Identify and address most components of the task, project, or assignment—there may be some errors . With some accuracy use supporting evidence from the reading to form appropriate responses
2 Poor	Identify a topic, but is unable to state the main idea. Some major details and relevant facts or research are identified, but there are obvious omissions. Key technical college level vocabulary is either not present and/or used incorrectly.	Draws invalid inferences or conclusions based on personal interpretations not supported by the evidence presented in the text.	Be unable to identify the author's theory or primary purpose for writing, with some assistance. The student may be unaware of any forms of bias the author may have used in the writing	Identify and address some components of the task, project, or assignment—there will be multiple errors . Use supporting evidence from the reading to form responses, though some of the evidence may not be appropriate to the response.
1 Insufficient	Identify a supporting detail as the main idea. Major details and relevant facts or research are missing. The vocabulary used does not reflect technical college level vocabulary.	Does not attempt to draw inferences or conclusions, or not be able to support inferences or conclusion with evidence presented in the text.	Be unable to identify the author's theory or primary purpose for writing, even with prompting. The student is unaware of any forms of bias the author may have used in the writing.	Identify and address a few components of the task, project, or assignment—there will be gaps and errors . There may not be supporting evidence from the reading to form appropriate responses,
N/A				