



2011-2012
General Education/Institutional Learning Outcomes

Learning Outcomes Council
Palomar College

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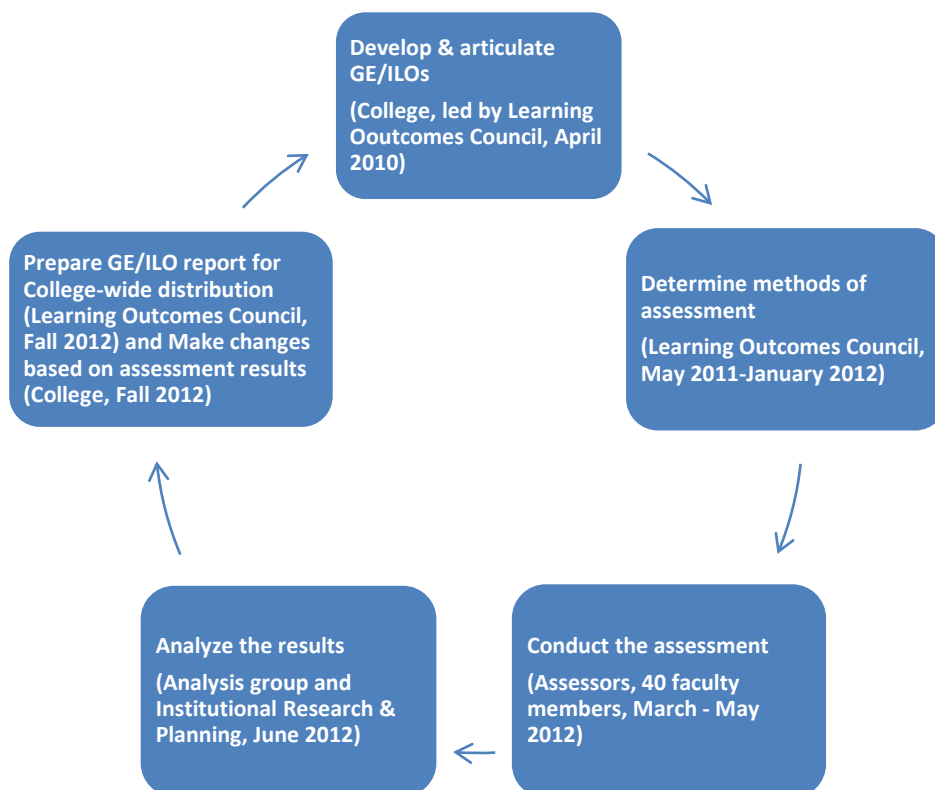
Executive Summary

As articulated in our mission statement, Palomar College is “committed to promoting the learning outcomes necessary for our students to contribute as individuals and global citizens living responsibly, effectively, and creatively in an interdependent and changing world.” The college confirmed this commitment by identifying a set of general education/institutional learning outcomes (GE/ILOs), which represent the overall set of abilities and qualities a student graduating from Palomar College should possess. The GE/ILOs were adopted from the American Association of Colleges and Universities' LEAP framework, and were modified to reflect Palomar's particular set of values. In spring 2012, the college assessed students' ability to meet two subsets of the intellectual and practical skills GE/ILO: information literacy and critical and creative thinking. With a focus on understanding and supporting our students, this report presents the findings of the spring 2012 GE/ILO assessment.

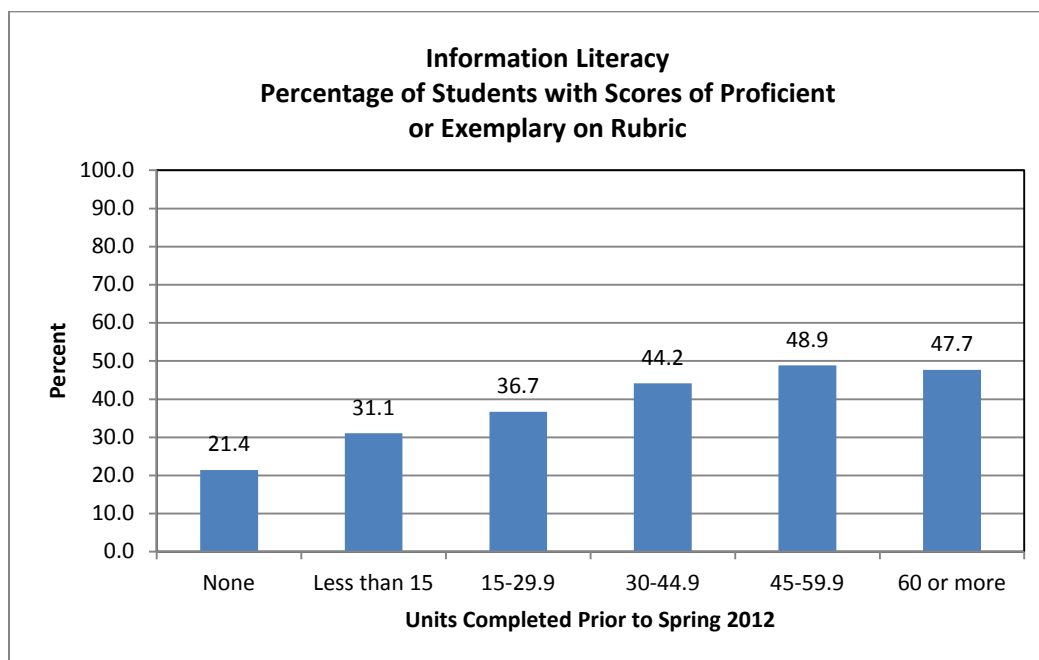
The purpose of this report is twofold. First it presents observations and considerations based on the spring 2012 assessment of the information literacy and critical and creative thinking outcomes. Second, it presents an evaluation of the spring 2012 GE/ILO assessment process and makes recommendations for future GE/ILO assessment. This experience stimulated new and exciting conversations among faculty and staff about student learning and the assessment process. Several individuals and groups contributed to the findings, observations and recommendations presented in this report. What follows is a short narrative describing the assessment process as well as the groups involved.

The assessment methods and process were developed and implemented by the college's Learning Outcomes Council (LOC), who reports to the Faculty Senate. The methods for assessing the information literacy and critical and creative thinking outcomes were identical. LOC selected a course-embedded approach to the assessment of the GE/ILOs using a common form of measurement, i.e. a rubric, for each outcome. Two common rubrics were drafted by a LOC workgroup in summer 2011; one for information literacy and one for critical and creative thinking. The workgroup used the American Association of Colleges and Universities' VALUE rubrics as a starting point for developing an initial draft of each rubric (see Appendix A and B for the rubrics used for this assessment project).

An evaluation and data analysis workgroup composed of 10 faculty (6 full-time and 4 part-time) and two administrators met in June 2012 to review the assessment data for both outcomes as well as the data collected in relation to the implementation of the assessment method and process. The observations and considerations made by this analysis workgroup were presented to the Learning Outcomes Council in September 2012 for review and consideration. Figure 1 illustrates the groups involved in the process over the course of the assessment cycle.

Figure 1: Groups Involved in GE/ILO Assessment Cycle**Assessment Observations and Recommendations for Information Literacy**

By identifying information literacy as a GE/ILO, the college has recognized the significance of an information literate society and the importance of ensuring that students who complete a program of study at Palomar College are information literate. The results of this assessment suggest that approximately 48% of students who have completed 45 or more units at Palomar are proficient in information literacy (see Figure 2). Over 50 % of all students assessed scored either proficient or exemplary on each of the first four competencies in the rubric (define, access, evaluate and use information). Students were strongest in defining, accessing, and evaluating information. Students who completed more units performed better than students who completed fewer units. Using information ethically was the last competency on the rubric and is an area of particular concern. Less than half (42.5%) of the students assessed at proficiency on using information ethically (citing sources).

Figure 2

In order to strengthen students' information literacy skills, the LOC recommends the development of online information literacy learning modules that can be easily infused into existing course and program curricula. LOC also encourages the college to consider offering workshops and possibly a 1-unit college preparation course, which includes information literacy, as part of a freshman experience program or through the Teaching and Learning Center.

LOC also suggests offering professional development activities and resources to assist instructors in incorporating effective information literacy curricula into courses and programs.

Assessment Observations and Recommendations for Critical and Creative Thinking

By identifying critical and creative thinking as a GE/ILO, the college has recognized the significance of critical and creative thinking and the importance of ensuring that students who complete a program of study at Palomar can think critically and creatively. Student performance varied somewhat across the competencies in the rubric. Students were strongest in identifying and understanding the problem and issues and were weakest in analyzing points of view, strategizing possible solutions, and drawing conclusions and predicting outcomes. Approximately 35% of all students assessed achieved an overall score within the proficiency or exemplary range. The analysis workgroup expected students with more units to perform better than students with fewer units. However, this was not observed in the data. While students who had earned at least one unit performed slightly better than students who had not yet

earned any units (i.e. new students), there was no statistical difference in performance across student groups based on units earned.

After reviewing the results of the assessment, LOC recommends revisiting the definition and intention of the critical and creative thinking outcome. The college should consider separating the current critical and creative thinking outcome into two distinct outcomes. Furthermore, LOC recommends investigating other methods of assessment for this outcome(s) and seeking input from multiple disciplines throughout the assessment planning process. Professional development activities and resources focused on critical and creative thinking should also be made available, including opportunities for faculty across disciplines to collaborate and learn how others are integrating critical and creative thinking into the curriculum.

Evaluation and Recommendations for Future GE/ILO Assessment

This assessment process provided forums where instructors from across disciplines shared their experiences and worked together to improve students' general education. Discussions were lively and productive—raising questions and coming up with valuable recommendations. Feedback from faculty members involved in the process was overwhelmingly positive. LOC recommends using the course embedded, common rubric assessment approach for at least another GE/ILO assessment cycle. LOC developed a three-year assessment plan that addresses the full scope of the college's GE/ILO framework. The college will assess Critical Thinking, Oral Communication, Quantitative Literacy, Writing/Reading, Information Literacy and possibly one other outcome at the course level with a course embedded, common rubric or other instrument/method. The college will also assess the other GE/ILOs at an institutional level through an indirect and/or direct assessment possibly through an institutional survey.

Faculty need to be kept well informed of the annual GE/ILO assessment process and be given opportunities to provide input and feedback on the design and planning of GE/ILO assessment methods. LOC recommends seeking more input from the disciplines when preparing future assessment rubrics.

PART I: 2012 GE/ILO Assessment Methods and Findings

Introduction

In April 2010, Palomar College identified a set of general education/institutional learning outcomes (GE/ILOs), which represent the overall set of abilities and qualities a student graduating from Palomar should possess. These were adopted from the American Association of Colleges and Universities' LEAP framework, and modified by the faculty of the college to reflect Palomar's particular set of values. In spring 2012, the college assessed two subsets of the intellectual and practical skills GE/ILO: information literacy and critical and creative thinking.

Twenty randomly selected courses participated in the assessment of each outcome. The courses were identified after the second week of the spring 2012 semester on "census day." During a three-hour training session, 40 participating course instructors, who will be referred to throughout this report as the assessors, were introduced to the assessment process and the draft rubric developed by the LOC workgroup for each respective GE/ILO. Also during this training session, the assessors had the opportunity to further norm and refine each rubric. Upon completion of the training, a working version for each rubric was distributed to the assessors (See Appendices A and B). The assessors applied the final rubric to a designated student work (e.g. an exam, assignment, or portfolio) that would demonstrate students' ability to meet the GE/ILO being assessed. After scoring the student work, the assessors submitted the results to the college's Institutional Research and Planning office. In order to get feedback about the assessment method and process, the assessors either completed an online survey or participated in one of two focus groups during finals week. Upon completion of the project requirements, the assessors received a \$500 stipend.

Assessment Results and Observations: Information Literacy

Information Literacy Student Sample

On census day, a total of 678 students were enrolled in the sections participating in the assessment study. Faculty returned 610 assessments surveys, of which 458 were completed. Note that faculty were asked to return all assessment surveys, even if they were unable to assess a student. Reasons for not completing an assessment include student withdrawal from class prior to the assessment, student no longer attending class, and/or student did not complete the assignment used to assess information literacy. Table 1 includes the distribution of the sample by gender, age, and ethnicity.

Table 1
Information Literacy
Student Characteristics

Characteristic	N	%
Gender		
Female	279	60.9
Male	178	38.9
Unknown	1	0.2
<i>Total</i>	<i>458</i>	<i>100.0</i>
Age		
< 18	5	1.1
18-19	153	33.4
20-22	147	32.1
23-29	91	19.9
30+	62	13.5
<i>Total</i>	<i>458</i>	<i>100.0</i>
Ethnicity		
Asian	19	4.1
Black or African American	9	2.0
Filipino	10	2.2
Hispanic	166	36.2
Multi-ethnicity	19	4.1
Native American	3	0.7
Pacific Islanders	3	0.7
White	213	46.5
Unknown	16	3.5
<i>Total</i>	<i>458</i>	<i>100.0</i>

Based on the characteristics listed in the table the sample selected does not represent the student population at Palomar College. For example, the college's general student population is evenly split by gender and the college's general student body's racial/ethnic background is more diverse. Only 52% of all courses have been mapped to the college's GE ILOs (See Part II). As a result, the distribution most likely represents student enrollment in the courses mapped to the GE/ILO rather than the student population in general. Table 2 shows the distribution of units completed by students participating in the study prior to their enrollment in the spring 2012.

Table 2
Information Literacy
Student Progress (Units Completed)
at Palomar

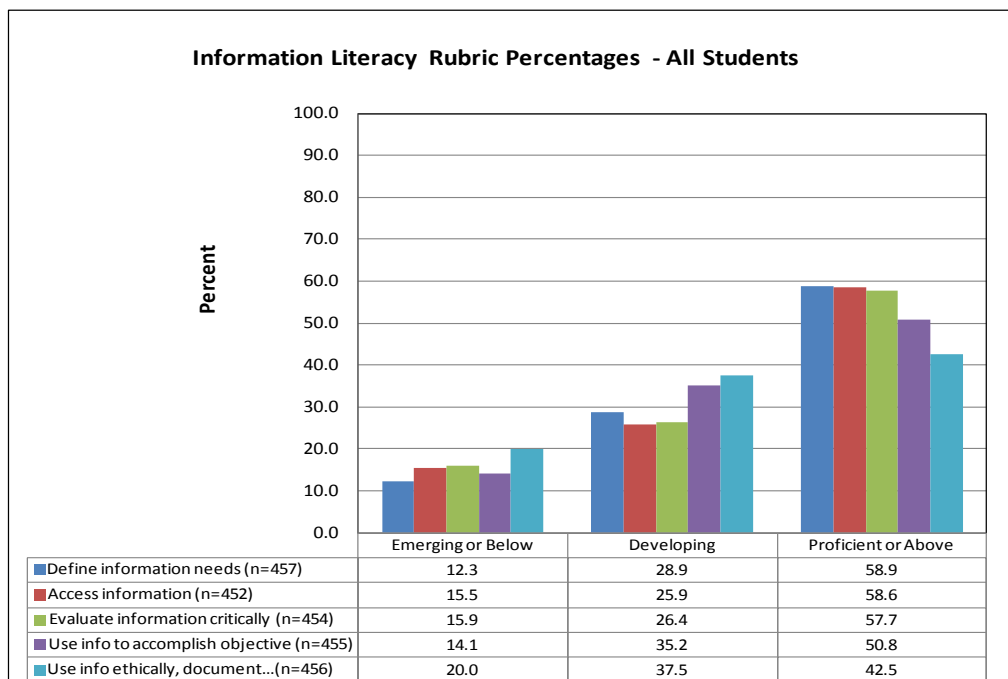
	N	%
Units Completed		
None	59	12.9
Less than 15	108	23.7
15-29.9	79	17.2
30-44.9	77	16.8
45-59.0	46	10.0
60 units or more	89	19.4
<i>Total</i>	<i>458</i>	<i>100.0</i>

Information Literacy Observations

Overall Observations

Over 50% of students scored either proficient or exemplary on each of the first four competencies in the rubric (define, access, evaluate and use information). Students were strongest in defining, accessing, and evaluating information. These observations are illustrated in Figure 3. Of those students who were rated on all five competencies, 37.1% earned a score of proficient or exemplary.

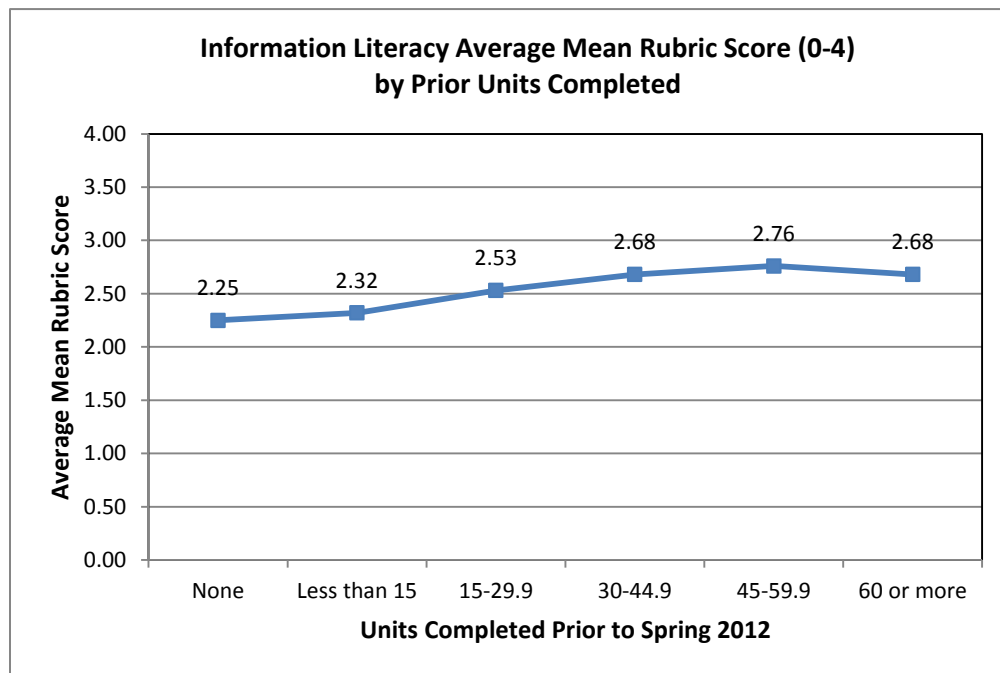
Figure 3



Assessment Results by Units Completed

Students who completed more units performed better than students who completed fewer units. However, it appears that a plateau in performance exists once a 30 unit threshold is met. For example, students who completed 60 or more units did not perform better than students who earned 30 – 44.9 units (see Figure 4). The percentage of students who scored an average of proficiency or higher was also higher for students who had completed 30 or more units (Figure 2). (See Appendix D for significance test results.)

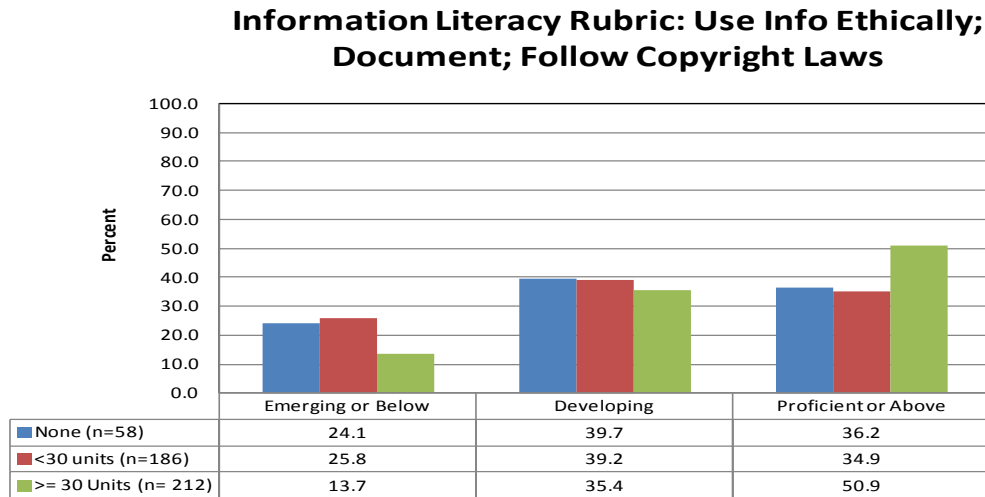
Figure 4



Using Information Ethically

While the results suggest that the information literacy skills of our students could be stronger, this competency on the rubric is an area of particular concern. Less than half (42.5%) of the students assessed at proficiency on this competency (see Figure 3). As evidenced in Figure 5, students earning 30 or more units scored higher on this competency than students earning less than 30 units.

Figure 5



Discussion of Findings

The following discussion attempts to summarize the comments and conversations had by the faculty assessors and the analysis workgroup.

The results of this assessment suggest that approximately 48% of students who have earned 45 or more units are proficient in information literacy (see Figure 2). One assessor noted that “the typical community college student is woefully unprepared and uneducated in the standards of simple academic research, writing, and citation, probably through no fault of their own. They are certainly capable of learning it, but most of them just have no idea, and that makes our jobs as instructors much more difficult.”

The analysis workgroup noted that information literacy instruction and reinforcement is a college-wide responsibility. Some of the workgroup members were also under the assumption that students learned how to find, use and evaluate information in high school, or that someone else on campus was teaching information literacy. One of the assessors noted, “I think it is very important students learn to use research resources available through the library instead of just

using the Internet. I also think it is important that they learn to cite appropriately. I already try to emphasize these things, but this project reminds me of how important this is.”

The assessment results suggest that students’ information literacy skills tend to improve with the number of units completed at Palomar. However, there appears to be a plateau in students’ information literacy development at around 30 earned units. The analysis workgroup also noted that not only is the college responsible for teaching information literacy skills, but faculty need to continually reinforce them across the disciplines in upper and lower division courses. That said, the faculty faces the challenge of balancing curricula that adequately address specific course and program outcomes as well as core, general education outcomes such as information literacy and critical and creative thinking. One assessor noted, “I would be happy to help my students improve their research/writing skills as part of the classes I teach, but I find it extremely difficult to do so given the time constraints of the classes I teach.”

While this may not be reflective of the faculty as a whole, some faculty members involved in this assessment expressed how they are adjusting assignments because students lack the necessary information literacy skills. In the process of identifying course sections for this assessment, 12 course instructors declined to participate in the assessment because they did not have an assignment that could measure students information literacy skills based on the rubric developed, even though at least one of the course SLOs mapped to the information literacy GE/ILO. Some of these faculty members admitted to removing information literacy assignments from the course curriculum because students were unprepared to complete such assignments.

The results of this assessment also suggest that, with respect to information literacy, students are weakest in citing sources and using information ethically. Some of the workgroup members’ experiences with student plagiarism were reinforced by the data, which suggests that plagiarism constitutes one of the biggest struggles for students when using outside sources. One assessor commented, “I plan on being more explicit about the strategies for citing and finding sources for use in this project.” The analysis workgroup recognized two factors that compromise student ethics: (1.) students don’t always know that they are plagiarizing and (2.) students don’t have an appreciation for intellectual property. The growth of the Internet and social networking has made it even easier to plagiarize and has down-played the significance of giving credit to someone else’s words and ideas.

In addition to examining students’ information literacy skills by units completed at Palomar, it would be worth investigating whether or not a relationship exists among various age groups, native and non-native speakers, and first generation college students.

Considerations and Ideas for Exploration

After reviewing the findings prepared by the analysis workgroup, the Learning Outcomes Council suggests the following actions for consideration:

1. Develop online information literacy learning modules that can easily be infused into existing course and program curricula.
 - a. If possible, the modules should integrate with the college's learning management system, Blackboard.
 - b. The modules may be completed by students several times throughout their academic career at Palomar College.
 - c. Learning modules should allow students to assess and take responsibility for their learning and development.
 - d. Students could earn a certificate upon completing the entire set of learning modules.
2. Consider including an intellectual property/ethics learning module into the financial aid checklist that students must complete before registering for class.
3. Incorporate information literacy curriculum into the Basic Skills "first year experience". Possible ideas include:
 - a. A one-unit college preparation course that introduces students to information literacy and other essential academic skills.
 - b. Information literacy workshops offered through the Teaching & Learning Center
4. Provide professional development activities and resources that support the teaching of information literacy.
 - a. Provide opportunities for faculty collaboration across disciplines.
 - b. Offer workshops that introduce information literacy resources (library databases, citation management software, and plagiarism tools, etc.) and present effective methods for using these resources to teach information literacy.
 - c. Compile and share effective information literacy curricula.

Assessment Results and Observations: Critical and Creative Thinking

Critical and Creative Thinking Student Sample

On census day, a total of 660 students were enrolled in the sections participating in the assessment of critical and creative thinking. Faculty returned 660 assessments surveys, of which 476 were completed. Faculty were asked to return all assessment surveys, even if they were unable to assess a student. Reasons for not completing an assessment include student withdrawal from class prior to the assessment, student no longer attending class, and/or student did not complete the assignment used to assess critical and creative thinking. Table 3 includes the distribution of the sample by gender, age, and ethnicity.

Table 3
Critical and Creative Thinking
Student Characteristics

Characteristic	N	%
Gender		
Female	279	58.4
Male	195	41.0
Unknown	2	0.6
<i>Total</i>	476	100.0
Age		
< 18	10	2.1
18-19	153	32.1
20-22	145	30.4
23-29	98	20.5
30+	71	14.9
<i>Total</i>	477	100.0
Ethnicity		
Asian	26	5.5
Black or African American	14	2.9
Filipino	25	5.2
Hispanic	146	30.6
Multi-ethnicity	27	5.7
Native American	5	1.0
Pacific Islander	2	0.4
White	212	44.4
Unknown	20	4.2
<i>Total</i>	477	99.9

Based on the characteristics listed in the table, the sample selected does not represent the general student population. For example, the college's general student population is evenly split by gender and the student body's racial/ethnic background is slightly more diverse. As described earlier, not all courses have been mapped to the college's GE/ILOs. As a result, the distribution most likely represents student enrollment in the courses mapped to the GE/ILO rather than the student population. Table 4 shows the distribution of units completed by students participating in the study prior to their enrollment in the spring 2012 semester.

Table 4
Critical and Creative Thinking Progress
(Units Completed) at Palomar

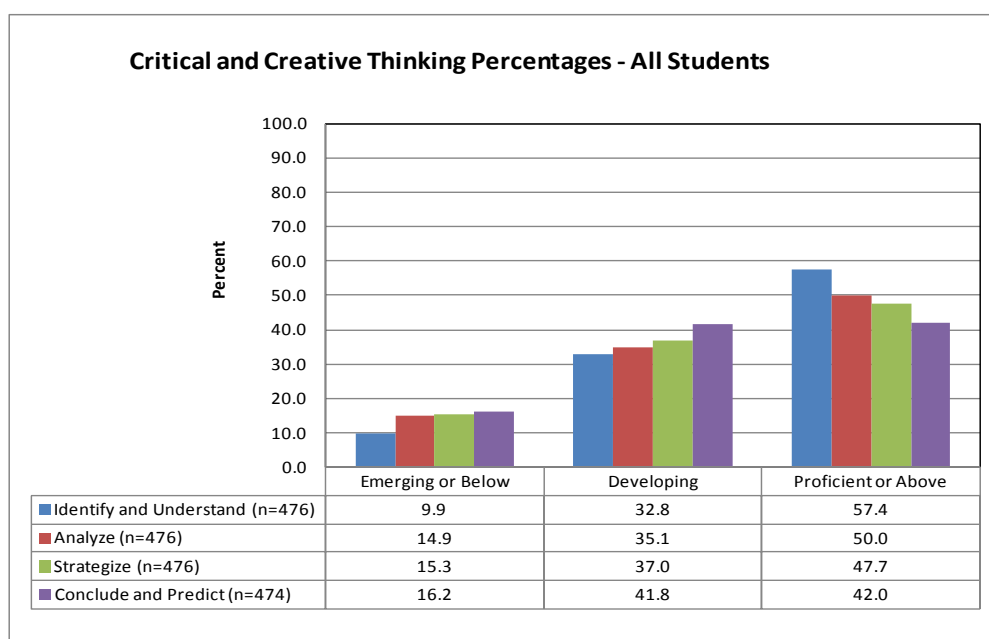
	N	%
Units Completed		
None	43	9.0
Less than 15	113	23.7
15-29.9	84	17.6
30-44.9	83	17.4
45-59.0	58	12.2
60 units or more	96	20.1
<i>Total</i>	477	100.0

Critical and Creative Thinking

Overall Observations

Student performance varied somewhat across the competencies in the rubric (Figure 6). Students were strongest in identifying and understanding the problem and issues and were weakest in analyzing points of view, strategizing possible solutions, and drawing conclusions and predicting outcomes. One hundred sixty-five (34.6%) students scored at proficiency or exemplary.

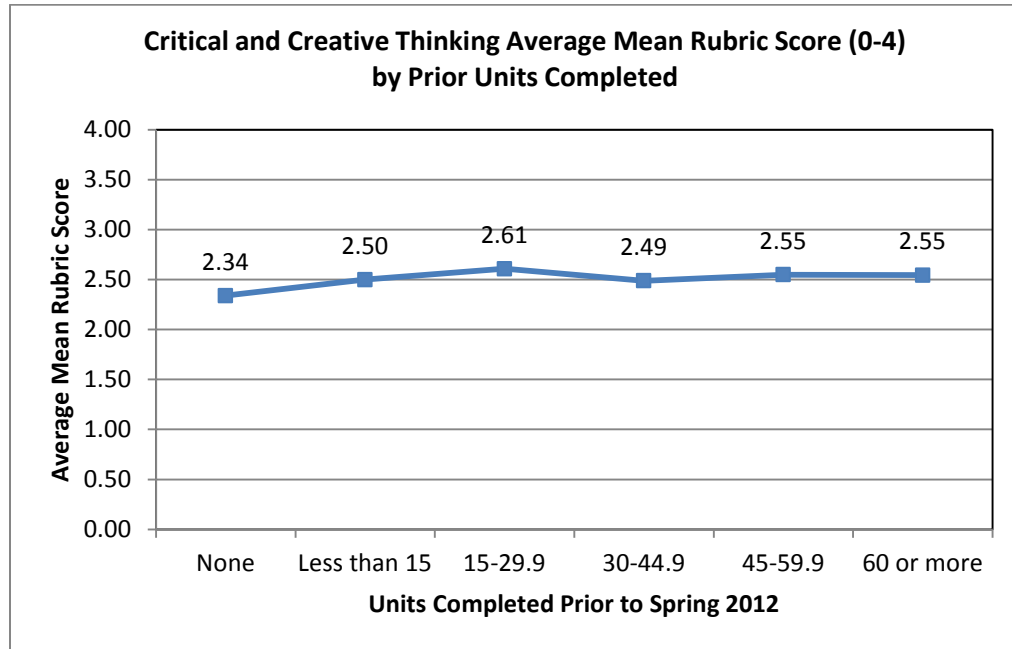
Figure 6



Assessment Results by Units Completed

Initial examination of performance broken down by units completed suggests that students who had completed some number of units prior to spring 2012 performed better than students who had not completed any units. However, this difference was not statistically significant. Figure 7 depicts the mean rubric scores.

Figure 7



Discussion of Findings

The following discussion attempts to summarize the comments and conversations had by the faculty assessors and the analysis workgroup.

The analysis workgroup expected students with more units to perform better than students with less units. However, this was not observed in the data. While students who had earned at least one unit performed better than students who had not yet earned any units (i.e. new students), there was no statistical difference in performance across student groups based on units earned. One assessor noted, “The area of consistent weakness is analysis. Most seemed to identify the problem, but reflecting on their approach and future directions/changes was more challenging.”

The analysis workgroup discussed several possible reasons for the findings. Some suggested explanations for students’ overall performance include the rubric design, sample of students, and the semester in which the assessment was offered.

The results of this assessment and the assessment process, suggest that the critical and creative thinking rubric needs further development. Some assessors experienced challenges with the rubric. One assessor said, "Identifying the critical thinking component of the assignment and then applying the rubric posed the biggest challenge." Another assessor said, "Initially, the four areas were a little difficult to navigate as they often seemed to overlap a bit, but it improved over time." Some assessors also indicated that they needed to alter the assignment in order to assess critical and creative thinking.

The analysis workgroup noted that this rubric focused on measuring problem-solving, but other aspects of critical thinking and creative thinking were not assessed by the rubric. Furthermore, disciplines have a unique interpretation of critical and creative thinking and how these skills impact the discipline. Some workgroup members asked whether we should keep critical thinking and creative thinking together. There were some questions about whether a rubric was an adequate measurement for critical and creative thinking especially when assessing across disciplines.

In addition to examining students' critical and creative thinking skills by units completed at Palomar, it would be worth investigating whether or not a relationship exists among various age groups and day and evening classes.

Considerations and Ideas for Exploration

After reviewing the findings prepared by the analysis workgroup, the Learning Outcomes Council suggests the following actions for consideration:

1. Revisit the definition and intention of the college's critical and creative thinking outcome. Consider separating the current critical and creative thinking outcome into two distinct outcomes.
2. After reviewing this outcome, revisit the critical and creating thinking rubric and investigate other methods of assessment.
3. Future assessment planning for this outcome(s) should involve input from multiple disciplines.
4. Provide professional development activities and resources that support the teaching of critical and creative thinking.
 - a. Provide opportunities for collaboration among faculty across disciplines.
 - b. Compile and share effective critical and creative thinking curricula.

PART II: GE/ILO ASSESSMENT PROCESS, EVALUATION & RECOMMENDATIONS

Introduction

Overall, the analysis workgroup participants and faculty assessors benefitted from this assessment process. Creating these kinds of forums where teachers speak across disciplines and acknowledge their shared involvement in students' general education is valuable. The feedback provided by focus groups and surveys was overwhelmingly positive. Many faculty members and groups were involved in the assessment process. The process included many meaningful conversations about student learning. There is now a greater awareness of GE/ILOs and our assessment practices because groups like Faculty Senate, Curriculum, Learning Outcomes Council and the Strategic Planning Council were involved in the process. The assessment process connected the college to student learning, and faculty found commonality in teaching and learning across disciplines.

An evaluation and data analysis workgroup composed of 10 faculty (6 full-time and 4 part-time) and two administrators met in June 2012 to review the assessment data for both outcomes as well as the data collected in relation to the implementation of the assessment method and process. The observations and considerations presented in Part II of this report were made by this analysis workgroup. While the group did not agree on everything, they were able to evaluate the data and make recommendations for future assessments. The analysis workgroup was comprised of the following individuals:

- Michelle Barton, Director of Institutional Research & Planning
- Berta Cuaron, Vice-President of Instruction
- Rose Darrough, History
- Jenny Ferrero, Child Development
- Katy French, 2011-2012 SLOAC Co-coordinator, Library
- Marty Furch, 2011-2012 SLOAC Coordinator, ESL
- Wendy Nelson, 2012-2013 SLOAC Coordinator, Communications
- Cynthia Anfinson, Mathematics
- Pamela McDonough, English
- Jonathan Rossiter, Geography
- Perry Snyder, Physics
- Seena Trigas, History

Evaluation of the Assessment Process

This evaluation is based on SLOAC coordinator feedback as well as data collected through an online survey completed by 24 assessors and 2 focus groups involving the remaining 14 assessors. The two SLOAC Coordinators documented their experience throughout the process, and assessors provided feedback about their experiences.

Each focus group session included two recorders and 6 to 8 assessors. The setting was casual with members sitting around a table for the discussion. On both days the session started with the moderator providing background information and prompting discussion with a list of questions addressed to the group. The discussion was lively and all of the assessors participated in the discussion. A survey was sent to the remaining assessors who did not participate in the focus group.

Observations

Training and Workload

A total of 10 2-hour training sessions were needed in order to train all 40 faculty participants, a.k.a. the assessors. Each session walked the assessors through the GE/ILO assessment process and provided opportunity for assessors to practice together scoring with the rubric using a sample history paper. Assessors also had the opportunity to provide input on the final version of the rubric for each outcome assessed.

Assessors were satisfied with the training provided. They commented that the training was very important and that the assessment couldn't have been conducted without it. 100% of assessors surveyed agreed that the purposes of the project were well-presented during the orientation. One assessor commented, "The training session was very well prepared and implemented which made the assessment easy to implement."

Assessors were asked to keep track of the time they spent working on the assessment project. As shown in Figure 8, 80% of the assessors spent four or fewer hours on the assessment project. Figure 9 provides a breakdown of how much time faculty spent per assessment.

Figure 8

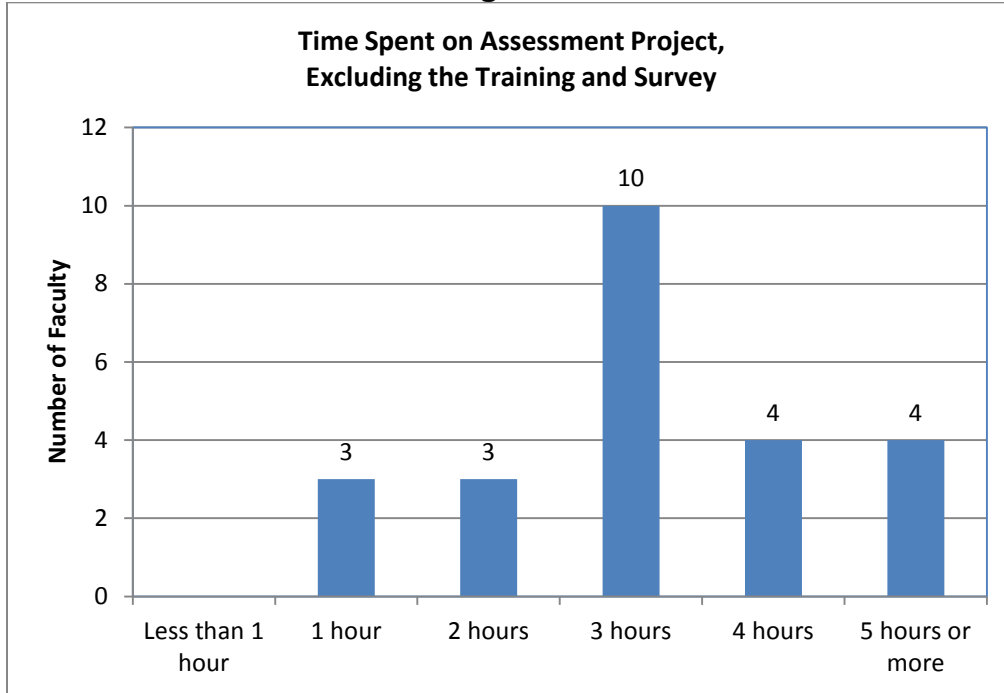
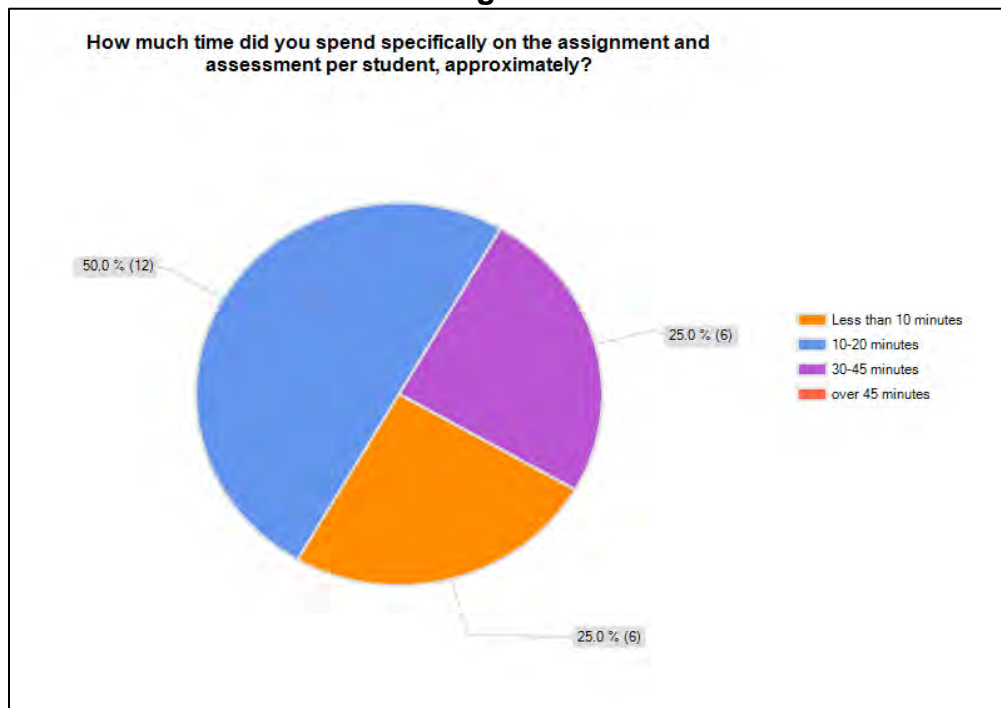


Figure 9



Using the Rubrics

Assessors recommended more input from the disciplines when preparing future rubrics, especially with regards to the wording on the rubrics. Some acknowledged that it might be impossible to create rubrics that will work for all disciplines. Most assessors found that the rubric categories worked (emerging, developing, etc.). Some, however, would have preferred if the wording for each criterion could be modified to meet the needs of each discipline. One assessor found the rubric too complex.

Most assessors said that the rubrics were easy to use and apply to their assignments. However, many said that if they had more time they would have adjusted their assignments so that the assignments would have worked better with the rubrics. Assessors said that they faced some challenges while working with the rubrics. One critical and creative thinking assessor said they experienced “some trouble staying focused on the four areas which seemed to overlap at times.”

Assessors recommended scoring multiple sample assignments that represent a variety of disciplines in future training. It was suggested that disciplines could submit examples for use in norming student work. Assessors also suggested providing multiple tiered assignments (e.g. emerging, developing, proficient, and exemplary) for comparison. Some assessors indicated that norming the rubric alongside other assessors helped them to develop or improve their own rubrics, e.g. “this discussion was especially helpful. It was also useful for developing rubrics of my own.”

Assessors were expected to introduce the rubrics to their students. Most assessors said the students received the rubrics well. Some assessors said that once the students understood that the rubrics were not going to be used for grading, they were more comfortable with the process.

Impact on Teaching

Some assessors said they adapted their assignments to fit the rubrics during this study. Many said that using the rubrics helped the students focus and understand the assignments better. One assessor said, “I thought that some of them prepared better for the assignment as they were exposed to this.” 71% of the assessors surveyed said the experience with this assessment project would have some impact on their planning and design of curriculum for future classes. “I plan on being more explicit about the strategies for citing/finding sources for the use in this project.” Many of the assessors enjoyed being part of this assessment process. One assessor said, “Thank you for coming up with this project so that we, as educators can collaborate in probing some of the issues that help us to create a better learning environment for our students.” Another assessor said, “This study has value on several levels, and it should generate some serious conversation within our community.”

Feasibility of Using Assessment Again

Of the assessors surveyed, 23 out of 24 agreed that this project was feasible with little or no modification. The final assessor felt the project was feasible with major modifications. All 40 assessors stated that they would participate in another assessment of GE/ILO Learning Outcomes. Some commented that it would be much easier the next time around. Assessors in one of the focus groups also disclosed that they would participate for a smaller stipend or for PD hours. It was noted, however, that the stipend is very important to part-time faculty. The assessors suggested compensating future assessors for the training portion only.

One assessor wanted to reiterate that this project should not be used for teacher evaluation. "...all the outcomes in the world doesn't factor in student accountability. I think when we report our data we need to make this clear that this is not a marker of "Teacher Success!". Another assessor was concerned that this process might create a parallel grading system, and would "prefer a more focused program across the curriculum."

There was also a concern that the college's current GE/ILOs framework would be difficult to assess given the breadth and number of GE/ILOs.

Recommendations for Future Assessment Processes

The following recommendations are based on the assessment results presented above as well as feedback about the GE/ILO project from the SLO coordinators, Institutional Research & Planning and participating faculty. Appendix C provides an evaluation of the assessment process prepared by the SLOAC coordinators.

General Recommendations

After reviewing the findings prepared by the analysis workgroup, the Learning Outcomes Council suggests the following actions for consideration:

1. Assessment Approach

LOC recommends using the course embedded common rubric assessment approach for at least another GE/ILO assessment cycle. A common rubric approach might not be the best way or the only way to assess each GE/ILO across a variety of programs and disciplines. For this reason, LOC also recommends investigating other methods of assessment for individual GE/ILOs.

2. Evaluation of GE/ILOs

LOC discussed how to manage the assessment the colleges' GE/ILO framework. As a result, a three-year assessment plan was created. The college will assess Critical Thinking, Oral Communication, Quantitative Literacy, Writing/Reading, Information Literacy and possibly one other outcome at the course level with course embedded, common rubric or other

instrument/method. The college will also assess the other GE/ILOs at an institutional level through an indirect and/or direct assessment possibly through an institutional survey.

3. Map Course SLOs to GE/ILOs

The faculty need to make a concerted effort to map all courses to the college's GE/ILOs through the Palomar Outcomes Database (POD). There are some cases when a course does not map to any of the GE/ILOs. These courses need to indicate this in the POD.

4. Communication and Feedback Throughout the Planning Process

Faculty need to be kept well informed of the annual GE/ILO assessment process and be given opportunities to provide input and feedback on the design and planning of GE/ILO assessment methods. Future rubric versions should be made available to all faculty members for feedback. Multidisciplinary workgroups should also be formed to explore rubrics and assessment methods.

5. Faculty Participation in Assessment of Outcomes

Individual faculty participation in the assessment of GE/ILOs should remain voluntary. However, the issue of assessor anonymity and whether department chairs should be made aware of faculty participation needs to be resolved. As we move forward, the college should continue to consider workload and compensation for participants. These issues are especially important when encouraging part-time faculty to participate. Some considerations include supporting part-time faculty with additional professional development hours and creating an online GE/ILO assessor training module to accommodate instructor schedules.

6. More Lead Time

It was made very clear by participants throughout the assessment process that more lead-time is required for this type of assessment. Two faculty members who declined to participate in the assessment project indicated that if they had more advance noticed (i.e. before the semester started), they could have created an assignment/project that could be used to measure the outcome. Focus group participants also requested more lead-time for aligning their assignments with the outcome's rubric, preferably before the start of the semester. Many participants had to modify their assignment after the semester started in order to align it with the rubric. Additionally, many participants had to use a final project given the short lead-time. Some participants commented that they would have had higher response rates had they given an earlier assignment.

20123-2015 GE Assessment Plan**Table 5: Proposed GE/ILO Assessment Timeline for 2013 – 2016**

Spring 2013 - Fall 2013	Oral Communication and Critical Thinking
Fall 2013 - Spring 2014	Institutional Level Assessment of multiple GE/ILOs
Spring 2014 - Fall 2014	Quantitative Literacy and Writing/Reading
Fall 2014 - Spring 2015	Institutional Level Assessment of multiple GE/ILOs
Spring 2015 - Fall 2015	Information Literacy and an additional outcome
Fall 2015 - Spring 2016	Institutional Level Assessment of multiple GE/ILOs

Opportunities for Dialogue

LOC has developed this comprehensive report to be distributed to students, faculty, staff and the college community. The report will be linked from the college homepage through the student learning outcomes link. We encourage department chairs to forward the report to faculty and encourage them to get involved in future assessments. In the future, the breakout sessions at plenary could help in training faculty how to use the rubrics and gather input about the process.

LOC understands that encouraging faculty to take part in the process is only half of the challenge. Students also need to be informed and encouraged to participate in the process. A presentation should be given to students in ASG and Interclub Council. A press release could also be drafted with highlights of the report and given to The Telescope. Faculty should also be encouraged to talk about the report with students in their classrooms. Students should be encouraged to track their own learning and progress. This report should also be presented to the [GRAD \(Goals, Responsibility, Attitude, Determination\)](#) Success Team.

APPENDICES

- A. Information Literacy Rubric
- B. Critical & Creative Thinking Rubric
- C. Assessment Methods: Process and Procedures
- D. Assessment Data Significance Tests

2011-2012 General Education/Institutional Learning Outcomes
Appendix A: Information Literacy Rubric

GE/Institutional SLO **INFORMATION LITERACY**

Definition: *The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand.* – The National Forum on Information Literacy. **NOTE** about using the rubric: Evaluators are encouraged to assign a zero to any work sample that does not meet the emerging level.

	0	1 Emerging	2 Developing	3 Proficient	4 Exemplary	Notes, comments, trends, etc.
Know: Students will define their information needs.		<ul style="list-style-type: none"> Cannot formulate a topic, research question, or thesis based on an information need 	<ul style="list-style-type: none"> Defines the scope of the topic, research question, or thesis incompletely (parts are missing, remains too broad or too narrow, etc.) 	<ul style="list-style-type: none"> Defines the scope of the topic, research question, or thesis completely Can determine key concepts 	<ul style="list-style-type: none"> Has a well-developed and engaging topic, research question, or thesis 	
Find: Students can access Information.		<ul style="list-style-type: none"> Retrieves information that lacks relevance and quality 	<ul style="list-style-type: none"> Selects information sources which only partially relate to research question Retrieves relevant information from limited and similar sources 	<ul style="list-style-type: none"> Utilizes types of information (sources) that relate to key concepts or answer the research question Retrieves relevant information from a variety of sources 	<ul style="list-style-type: none"> Uses extensive and relevant sources by experts within a discipline Retrieves relevant, quality information from a variety of sources Demonstrates ability to refine search and sources 	
Evaluate: Student can evaluate information critically.		<ul style="list-style-type: none"> Uses sources that are not timely, accurate, relevant, or credible 	<ul style="list-style-type: none"> Uses some appropriate sources but chooses others which are not suitable for academic work Uses sources that reflect a bias and are not balanced 	<ul style="list-style-type: none"> Selects sources that are appropriate for academic work Uses timely and credible sources which demonstrate a variety of viewpoints Identifies and evaluates information 	<ul style="list-style-type: none"> Compares and evaluates information according to specific criteria appropriate to the discipline Analyzes own and other's ideas and work thoroughly Evaluates the relevance of contexts 	
Use: Student uses information to accomplish the planned objective.		<ul style="list-style-type: none"> Communicates information from sources, but the information is fragmented/used inappropriately (misquoted, taken out of context, or incorrectly paraphrased) Does not achieve the intended purpose 	<ul style="list-style-type: none"> Communicates and organizes information from sources, but does not synthesize information so that the intended purpose is not fully achieved. 	<ul style="list-style-type: none"> Communicates, organizes, and synthesizes information from sources and achieves intended purpose 	<ul style="list-style-type: none"> Expands on conclusions from sources and is able to clearly communicate ideas 	
Follow Ethics: Student uses information ethically; documents information; and observes copyright laws.		<ul style="list-style-type: none"> Uses (e.g. copies and paraphrases) the information and ideas of others without giving credit 	<ul style="list-style-type: none"> Inconsistently gives credit for information and others' ideas Exhibits a lack of understanding of proper citation format 	<ul style="list-style-type: none"> Gives credit for works used by quoting, citing, and listing references accurately according to a selected writing style and guidelines 	<ul style="list-style-type: none"> Can properly incorporate the ideas/published words of others into their work building upon them 	

Appendix B: Critical & Creative Thinking Rubric

GE/Institutional SLO Critical and Creative Thinking

Definition: Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and

action. -The Foundation for Critical Thinkingⁱⁱ

NOTE about using this rubric: Evaluators are encouraged to assign a zero to any work sample that does not meet the emerging level.

	0	1 Emerging	2 Developing	3 Proficient	4 Exemplary
Identify and understand the problem and issues		<ul style="list-style-type: none"> Cannot identify and/or describe the problem or issue 	<ul style="list-style-type: none"> Demonstrates some minimal or simplistic understanding of the problem 	<ul style="list-style-type: none"> Identifies, demonstrates, and/or describes the problem clearly with effective support 	<ul style="list-style-type: none"> Demonstrates, states, and/or describes, the issue or problem clearly, delivering all relevant information necessary for full understanding
Analyze		<ul style="list-style-type: none"> Presents a completely limited and/or biased perspective Fails to acknowledge other points of 	<ul style="list-style-type: none"> Presents a limited, biased, perspective Considers other points of view or solutions 	<ul style="list-style-type: none"> Analyzes and presents a point of view with a comparative perspective that includes other points of view without bias 	<ul style="list-style-type: none"> Analyzes, discusses and/or demonstrates comparative perspectives with full understanding of multiple positions
Strategize		<ul style="list-style-type: none"> Presents no plan or solution, or uses illogical solutions to a problem 	<ul style="list-style-type: none"> Identifies possible solutions without clarity or creative thinking Takes information from sources with some interpretation or evaluation Begins to formulate a plan to solve a problem using creative thinking 	<ul style="list-style-type: none"> Identifies and develops alternative solutions Formulates an effective plan to solve a problem using creative thinking 	<ul style="list-style-type: none"> Formulates a creative, original, and well-stated solution using sophisticated thinking
Draw conclusions & predict related outcomes		<ul style="list-style-type: none"> Does not tie conclusions to the information presented 	<ul style="list-style-type: none"> Does not consistently tie conclusions to the information presented Oversimplifies related outcomes 	<ul style="list-style-type: none"> Ties conclusion to a range of information including opposing viewpoints Clearly identifies related outcomes, consequences, and implications 	<ul style="list-style-type: none"> Uses logical conclusions and related outcomes to reflect a well-informed evaluation Prioritizes evidence and perspectives

Appendix C: Assessment Methods: Process and Procedures

The methods for assessing the information literacy and critical and creative thinking outcomes were identical. The assessment process was developed and implemented by the college's Learning Outcomes Council (LOC), who reports to the Faculty Senate. After extensive research and discussion, the Learning Outcomes Council selected a course-embedded approach to the assessment of GE/ILOs using a common form of measurement, i.e. a rubric, for each outcome.

Course-Embedded Assessment

Course instructors, a.k.a. assessors, participating in the assessment project selected a student work (e.g. an exam, assignment, or portfolio) that would demonstrate students' ability to meet the GE/ILO being assessed, information literacy or critical and creative thinking. The assessors were advised to use an assignment or project that they had already developed for the course. The assessors applied a common rubric to student work. After scoring the student work, the assessors submitted the results to the college's Institutional Research and Planning office.

Rubric

Two common rubrics were drafted by an LOC workgroup in summer 2011, one for information literacy and one for critical and creative thinking. The workgroup used the American Association of Colleges and Universities' VALUE rubrics as a starting point for developing an initial draft of each rubric. During the training session, the assessors modified the rubric in order to make it more effective for all. Upon completion of the training, a final version of each rubric was distributed to the assessors (see Appendix A and B).

Random Selection of Course Sections

In order to get a random sample of students, a random selection of course sections was selected for each outcome. The courses included in the sample were drawn from the pool of courses that mapped to the respective outcome (information literacy or critical and creative thinking) in the Palomar Outcomes Database, a.k.a. the POD. LOC chose to limit the sample to those courses that mapped to the respective GE/ILO in the POD with the belief that these courses would be more likely to have an assignment that could be used to measure the outcome. Twenty course sections participated in each outcome assessment. Table C-1 presents the distribution of full and part-time faculty participating in the assessment.

Table C-1: Full and Part-time Faculty Participation

Outcome	Full-time faculty	Part-time faculty
Information Literacy	9	11
Critical and Creative Thinking	9	11

The selection of courses participating in the assessment of both outcomes did not provide a representative sample of all college courses. The sample of courses for each outcome was skewed because 52% of courses are currently not mapped to any GE/ILOs in the POD. Some disciplines have mapped all of their courses in the POD while others haven't mapped any courses. Therefore, many courses were not represented in the sample because they were not mapped to any GE/ILO outcomes in the POD. Conversely, other courses and disciplines that did map to the GE/ILO outcomes in the POD were overrepresented in the sample. As of June 9, 2012, approximately 37% (529) of college courses mapped to the Critical & Creative Thinking outcome in the POD while 16% of courses (231) mapped to the Information Literacy outcome. Table C-2 provides a list disciplines represented in the assessment of each outcome.

Table C-2: Disciplines Represented in the Assessment of Each Outcome

Information Literacy	Critical & Creative Thinking
Anthropology	Art
Art	Child Development
Child Development	Chemistry
Communications	Dental Assisting
ESL	Dance
Graphic Communications	Engineering
Geography	French
Microbiology	History
Philosophy	Math
Psychology	Nursing
Reading	Philosophy
Sociology	Sociology
	Zoology

Faculty Participation

Faculty participation in this assessment project was voluntary. Faculty assessors received a \$500 stipend upon completion of the project. In order to receive the stipend, assessors needed to complete the following:

- Attend a 3-hour training session where they were introduced to the project and had the opportunity to review and revise the rubric.
- Share the assessment rubric with students before students completed the project to be assessed.
- Score student work using the final version of the rubric and submit the rubric scores for each student to the Institutional Research & Planning office.
- Report experiences throughout the assessment process by completing a survey or attending a focus group.

Cost of Assessment Project

LOC received \$30,000 in grant funding through the college's Strategic Planning Council's Strategic Planning Priority Funding. \$20,000 was allocated to faculty stipends for the assessors while the remaining \$10,000 covered the cost of bringing together an analysis workgroup composed of 10 faculty and 2 administrators in June 2012 to analyze the assessment results, evaluate the assessment process, and prepare this report.

Data Analysis

LOC identified a set of variables to be analyzed for this assessment project, which was approved by the Faculty Senate. The analysis includes an examination of assessment scores for all students across each element of the two rubrics used in the project. It also includes an examination of assessment scores on each element of the rubrics by student groups formed on the basis of units completed prior to the spring 2012 semester. While LOC and the Faculty Senate did not identify hypotheses to be tested, both groups maintain a working assumption that students who have completed more units (or a significant number of units) will perform better on ILO assessments than students who have completed few or no units.

Simple descriptive statistics, frequencies and mean distributions, were completed. Where appropriate independent t-tests or independent Z tests for percentages were run to discern significant differences between student groups which were formed based upon units completed. Caution should be employed when interpreting the results. The sample sizes of some of the student groups are relatively small. Further, this study represented the college's first attempt at assessing ILOs using embedded course assessment. The process along with the development of assessment instruments is still under review and refinement.

Appendix D: Assessment Data Significance Tests

Table AvgGE3.0 Page 1

Spring 2012 General Education / Institutional Learning Outcomes Pilot Study

Information Literacy

Number of Ratings Students Received

AND For Those Rated On All Five, Number With Averages Above/Below 3.0

BASE: Students Who Were Rated

	Prior Units EARNED ("D" or Better)							Prior Units TAKEN (Any Grade)						
	TOTAL	None	<15	15	30	45	60+	None	<15	15	30	45	60+	
				to 29.9	to 44.9	to 59.9				to 29.9	to 44.9	to 59.9		
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
Total Answering	458	59	108	79	77	46	89	52	101	77	67	50	111	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Had 1 Competency Rating	-	-	-	-	-	-	-	-	-	-	-	-	-	
Had 2 Competency Ratings	-	-	-	-	-	-	-	-	-	-	-	-	-	
Had 3 Competency Ratings	4	2	2	-	-	-	-	2	1	1	-	-	-	
	0.9%	3.4%	1.9%					3.8%	1.0%	1.3%				
Had 4 Competency Ratings	8	1	3	-	-	1	3	1	3	-	-	-	4	
	1.7%	1.7%	2.8%			2.2%	3.4%	1.9%	3.0%				3.6%	
Had All Five Ratings (Net)	446	56	103	79	77	45	86	49	97	76	67	50	107	
	97.4%	94.9%	95.4%	100% C	100% C	97.8%	96.6%	94.2%	96.0%	98.7%	100% IM	100% IM	96.4%	
Had 5 Ratings w Mean < 3.0	276	44	71	50	43	23	45	39	66	48	42	23	58	
	60.3%	74.6% EFG	65.7% G	63.3%	55.8%	50.0%	50.6%	75.0% IM	65.3% L	62.3%	62.7%	46.0%	52.3%	
Had 5 Ratings w Mean >= 3.0	170	12	32	29	34	22	41	10	31	28	25	27	49	
	37.1%	20.3%	29.6%	36.7% B	44.2% BC	47.8% BC	46.1% BC	19.2%	30.7%	36.4% H	37.3% H	54.0% HIJ	44.1% HI	

Comparison Groups: BCDEFG/HIJKLM

Independent Z-Test for Percentages

Upper case letters indicate significance at the 95% level.

NOTE: Faculty applied a rubric to assign student work samples a rating ranging from 0-Below Emerging, 1-Emerging, 2-Developing, 3-Proficient to 4-Exemplary.

Palomar College

Research & Planning

June 2012

Dick Borden, Ph.D.

2011-2012 General Education/Institutional Learning Outcomes

Table AvgGE3.0 Page 2

Spring 2012 General Education / Institutional Learning Outcomes Pilot Study

Information Literacy

Number of Ratings Students Received

AND For Those Rated On All Five, Number With Averages Above/Below 3.0

	Prior Units EARNED ("D" or Better)							NET Under 15	NET 15 To 44.9	NET 45 & Over	NET Under 30	NET 30 & Over
	TOTAL	None	<15	15 to 29.9	30 to 44.9	45 to 59.9	60+					
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Total Answering	458	59	108	79	77	46	89	167	156	135	246	212
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Had 1 Competency Rating	-	-	-	-	-	-	-	-	-	-	-	-
Had 2 Competency Ratings	-	-	-	-	-	-	-	-	-	-	-	-
Had 3 Competency Ratings	4	2	2	-	-	-	-	4	-	-	4	-
	0.9%	3.4%	1.9%					2.4%			1.6%	
Had 4 Competency Ratings	8	1	3	-	-	1	3	4	-	4	4	4
	1.7%	1.7%	2.8%			2.2%	3.4%	2.4%		3.0%	1.6%	1.9%
Had All Five Ratings (Net)	446	56	103	79	77	45	86	159	156	131	238	208
	97.4%	94.9%	95.4%	100% C	100% C	97.8%	96.6%	95.2%	100% HJ	97.0%	96.7%	98.1%
Had 5 Ratings w Mean < 3.0	276	44	71	50	43	23	45	115	93	68	165	111
	60.3%	74.6%	65.7%	63.3%	55.8%	50.0%	50.6%	68.9%	59.6%	50.4%	67.1%	52.4%
		EFG	G					J			L	
Had 5 Ratings w Mean >= 3.0	170	12	32	29	34	22	41	44	63	63	73	97
	37.1%	20.3%	29.6%	36.7%	44.2%	47.8%	46.1%	26.3%	40.4%	46.7%	29.7%	45.8%
				B	BC	BC	BC		H	H		K

Comparison Groups: BCDEFG/HIJ/KL

Independent Z-Test for Percentages

Upper case letters indicate significance at the 95% level.

NOTE: Faculty applied a rubric to assign student work samples a rating ranging from 0-Below Emerging, 1-Emerging, 2-Developing, 3-Proficient to 4-Exemplary.

2011-2012 General Education/Institutional Learning Outcomes

Table AvgGE3.0 Page 1

Spring 2012 General Education / Institutional Learning Outcomes Pilot Study

Critical & Creative Thinking

Number of Ratings Students Received

AND For Those Rated On All Four, Number With Averages Above/Below 3.0

BASE: Students Who Were Rated

	Prior Units EARNED ("D" or Better)							Prior Units TAKEN (Any Grade)						
	TOTAL	None	<15	15	30	45	60+	None	<15	15	30	45	60+	
				to 29.9	to 44.9	to 59.9				to 29.9	to 44.9	to 59.9		
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
Total Answering	477	43	113	84	83	58	96	40	97	80	68	64	128	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Had 1 Competency Rating	1	-	-	-	1	-	-	-	-	-	-	1	-	
	0.2%				1.2%							1.6%		
Had 2 Competency Ratings	-	-	-	-	-	-	-	-	-	-	-	-	-	
Had 3 Competency Ratings	3	1	-	1	-	1	-	1	-	1	-	-	1	
	0.6%	2.3%		1.2%		1.7%		2.5%		1.2%			0.8%	
Had All Four Ratings (Net)	473	42	113	83	82	57	96	39	97	79	68	63	127	
	99.2%	97.7%	100%	98.8%	98.8%	98.3%	100%	97.5%	100%	98.8%	100%	98.4%	99.2%	
Had 4 Ratings w Mean < 3.0	308	31	70	50	56	40	61	29	60	50	44	41	84	
	64.6%	72.1%	61.9%	59.5%	67.5%	69.0%	63.5%	72.5%	61.9%	62.5%	64.7%	64.1%	65.6%	
Had 4 Ratings w Mean >= 3.0	165	11	43	33	26	17	35	10	37	29	24	22	43	
	34.6%	25.6%	38.1%	39.3%	31.3%	29.3%	36.5%	25.0%	38.1%	36.2%	35.3%	34.4%	33.6%	

Comparison Groups: BCDEFG/HIJKLM

Independent Z-Test for Percentages

Upper case letters indicate significance at the 95% level.

NOTE: Faculty applied a rubric to assign student work samples a rating ranging from 0-Below Emerging, 1-Emerging, 2-Developing, 3-Proficient to 4-Exemplary.

2011-2012 General Education/Institutional Learning Outcomes

Table AvgGE3.0 Page 2

Spring 2012 General Education / Institutional Learning Outcomes Pilot Study

Critical & Creative Thinking

Number of Ratings Students Received

AND For Those Rated On All Four, Number With Averages Above/Below 3.0

	Prior Units EARNED ("D" or Better)							NET Under 15	NET 15 To 44.9	NET 45 & Over	NET Under 30	NET 30 & Over
	TOTAL	None	<15	15 to 29.9	30 to 44.9	45 to 59.9	60+					
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Total Answering	477	43	113	84	83	58	96	156	167	154	240	237
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Had 1 Competency Rating	1	-	-	-	1	-	-	-	1	-	-	1
	0.2%				1.2%				0.6%			0.4%
Had 2 Competency Ratings	-	-	-	-	-	-	-	-	-	-	-	-
Had 3 Competency Ratings	3	1	-	1	-	1	-	1	1	1	2	1
	0.6%	2.3%		1.2%		1.7%		0.6%	0.6%	0.6%	0.8%	0.4%
Had All Four Ratings (Net)	473	42	113	83	82	57	96	155	165	153	238	235
	99.2%	97.7%	100%	98.8%	98.8%	98.3%	100%	99.4%	98.8%	99.4%	99.2%	99.2%
Had 4 Ratings w Mean < 3.0	308	31	70	50	56	40	61	101	106	101	151	157
	64.6%	72.1%	61.9%	59.5%	67.5%	69.0%	63.5%	64.7%	63.5%	65.6%	62.9%	66.2%
Had 4 Ratings w Mean >= 3.0	165	11	43	33	26	17	35	54	59	52	87	78
	34.6%	25.6%	38.1%	39.3%	31.3%	29.3%	36.5%	34.6%	35.3%	33.8%	36.2%	32.9%

Comparison Groups: BCDEFG/HIJ/KL

Independent Z-Test for Percentages

Upper case letters indicate significance at the 95% level.

NOTE: Faculty applied a rubric to assign student work samples a rating ranging from 0-Below Emerging, 1-Emerging, 2-Developing, 3-Proficient to 4-Exemplary.