General Education Assessment Results and Recommendations 2017-18

The assessment of student learning in the General Education curriculum at Valencia College is led by Learning Outcome Leaders (LOLs) and Deans representing each academic discipline. All seven disciplines are included in this report summarizing assessment activities, results, and improvement plans. The LOLs and Deans have read and revised this report as needed.

At the end of the 2017-18 assessment cycle the LOLs reported their activities, results, and improvement plans in the college’s planning software (Xitracs). This is the second year Learning Assessment has developed and shared this report format; drawing from the learning outcomes assessment information entered by LOLs in Xitracs. This report incorporates those results as well as revisions reported to the Assistant Director of Learning Assessment after the close of the cycle in May 2018, sometimes going beyond the results reported in Xitracs. Detailed assessment plans for the next cycle (2018-19) are available online in the Xitracs system.

The 2017-18 assessment cycle results indicate that students at Valencia College need…

1) continued opportunities for learning ethical responsibility, interpersonal communication, and oral communication.

Students are meeting faculty goals for the ethical responsibility, interpersonal communication and oral communication outcomes. This has been documented through the results from assessments embedded in social science, speech, and the New Student Experience courses. The evidence suggests that students may be prepared for more challenging expectations in these areas.

2) scaling and strengthening of the existing support structures for learning critical thinking, cultural and historical understanding, quantitative reasoning, and written communication.

Students are improving, but not meeting faculty goals for the critical thinking, cultural and historical understanding, quantitative reasoning, and written communication outcomes. The results showed improvement over the prior years, but the number of students scoring at the satisfactory level is still not meeting the goals set by faculty members. This has been documented through the results from assessments embedded in humanities and math courses. The evidence suggests that the interventions and improved learning materials related to these outcomes are supporting improvements for some students, and that there are further measures to be taken in order to support all students.

3) specialized interventions and new opportunities for learning information literacy and scientific reasoning.

Students are not meeting faculty goals, and not improving for the information literacy and scientific reasoning outcomes. This has been documented through the results from assessments embedded in humanities and science courses. The evidence suggests that students are in need of reinforcement of information literacy within the context of the content they are learning, and that students need assistance identifying the aspects of scientific reasoning with which they struggle.

Faculty and Deans can draw from the results included in this report, considering successes and areas for improvement across the disciplines in order to make college-wide improvements.

Nichole Jackson, Assistant Director, Learning Assessment
General Education by Discipline

English—Overview of 2017-18 assessment activities ........................................... 5
   Results, including any relevant underserved populations ...................................... 5
   Next steps to improve student learning ............................................................... 5
   Evidence of seeking improvement from prior year .............................................. 5
   Multiple year comparison by outcome ............................................................. 5

Humanities—Overview of 2017-18 assessment activities ....................................... 6
   Results, including any relevant underserved populations ...................................... 6
   Next steps to improve student learning ............................................................... 7
   Evidence of seeking improvement from prior year .............................................. 7
   Multiple year comparison by outcome ............................................................. 8

Mathematics—Overview of 2017-18 assessment activities ..................................... 9
   Results, including any relevant underserved populations ...................................... 9
   Next steps to improve student learning ............................................................... 9
   Evidence of seeking improvement from prior year .............................................. 10
   Multiple year comparison by outcome ............................................................. 10

New Student Experience—Overview of 2017-18 assessment activities .................... 11
   Results, including any relevant underserved populations ................................... 11
   Next steps to improve student learning ............................................................ 12
   Evidence of seeking improvement from prior year ............................................ 12
   Multiple year comparison by outcome ............................................................ 12

Science—Overview of 2017-18 assessment activities .......................................... 13
   Results, including any relevant underserved populations .................................. 13
   Next steps to improve student learning ............................................................ 13
   Evidence of seeking improvement from prior year .......................................... 14
   Multiple year comparison, by outcome ............................................................ 14

Social Science—Overview of 2017-18 assessment activities ................................ 14
   Results, including any relevant underserved populations .................................. 14
   Next steps to improve student learning ............................................................ 14
   Evidence of seeking improvement from prior year ......................................... 15
   Multiple year comparison by outcome ............................................................ 15

Speech—Overview of 2017-18 assessment activities ........................................... 15
English—Overview of 2017-18 assessment activities

To locate areas for improvement related to written communication skills in Freshman Composition I (ENC 1101), faculty identified 465 students whose final course grade was a low C, D, F or withdrawal along with the essays those students had written during the course. Data was considered for 465 students, of which only 8 had not submitted any written papers. English faculty hoped to use the combined course grades and essay scores to determine best practices for supporting underachieving students.

Results, including any relevant underserved populations

In Freshman Composition I, of the students who were identified as underachieving, approx. 30% were from “low risk” high schools determined by an analysis related to schools with disadvantaged populations conducted by the Department of Education over four years of data. Only about 17% were from “high risk” high schools determined through the same analysis. The students were predominately First Time in College (FTIC) students taking ENC 1101 for their first attempt and seeking an AA degree with an average age of 18. Just over half were Pell Grant eligible (a much larger percentage than Valencia’s overall population) and there were no other patterns uniquely distinguishing these students from the broader population. An analysis of student scores on individual essays determined that of the underachieving students who had written passing essays, only 26% of those earned low Cs and all others Ds, Fs, or withdrew (students who had earned final grades of higher Cs or Bs or As were not included in this data set).

Next steps to improve student learning

At Assessment Day in May 2018, English faculty determined a list of 14 best practices for intervening early when students are struggling. During the Fall 2018 faculty participated in a survey to select one or more options for the English departments college-wide or by campus to engage in during Spring 2019.

Evidence of seeking improvement from prior year

The improvement plan for written communication skills that was implemented in 2017-18 focused on faculty college-wide enhancing grading consistency of Freshman Composition I and Freshman Composition II essays as a result of identifying the variations in scoring by campus during the previous assessment cycle.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 listed the written communication evidence from Humanities courses as improving, but not meeting faculty goals. Instead of continuing a similar assessment of indicators of written communication skills, the English faculty focused on those who ended up underachieving in the hopes to identify best practices for supporting students who do not complete ENC1101 with satisfactory evidence of written communication. Since ENC 1101 is a prerequisite for the Gordon-Rule Humanities courses, the expected support could eventually improve student writing in the essays submitted for assessment within the Humanities courses.
Humanities—Overview of 2017-18 assessment activities

To measure critical thinking in introductory humanities courses, a fifteen question quiz was administered as a pre-test and post-test during Spring 2018. The questions were designed by faculty in Fall 2015 to test the relevant critical thinking indicators (bias, context, use of evidence). The quiz was administered as a pre-course assessment in Spring 2018 to 3,624 students with a response rate of 20% taking four minutes or more on the assessment, and administered as a post-course assessment in Spring 2018 to 3,442 students with a response rate of 16% taking four minutes or more on the assessment. The 7% response rate for students who submitted both the pre-course and post-course assessment remains below the 20% goal (same as the 7% response rate in the previous cycle measuring the same outcome).

To measure critical thinking, cultural and historical understanding, information literacy, and written communication in all Greek and Roman, Roman and Late Medieval, Renaissance and Baroque, Enlightenment and Romanticism, and 20th Century Humanities courses (HUM 2220, HUM 2223, HUM 2234, HUM 2250), students submitted papers during Fall 2017. Faculty assessed the papers using the General Education checklist rubric established in Fall 2014. A sample of 154 papers were requested, of which 78 were assessed, a 51% response rate (up from the 39% response rate in the previous cycle measuring the same outcomes).

Results, including any relevant underserved populations

For critical thinking, 64% of students completing the pre- and post-course assessment in Introduction to Humanities courses scored at or above the satisfactory level on the post-course assessment, above the 60% goal set by the faculty and up slightly from 63% on the pre-course assessment. Students from low-risk high schools (n=44) scored an average 9 out of 15 on the pre-course assessment and 9.4 out of 15 on the post-course assessment while those from high-risk high schools (n=29) scored an average 8.8 out of 15 on the pre-course assessment and 9.6 on the post-course assessment, providing some evidence that high-risk students benefit from the current course structure. The Lead LOL for Humanities explained, “The vast majority (94%) of students report spending time on critical thinking, while 70% say they were exposed to a PowerPoint discussing evidence, bias, and context. This is also the first time students have showed an increase, so the perceived exposure may mean more critical thinking instruction is going on.” Critical thinking was also measured within the sample of papers collected from students in Gordon-Rule Humanities courses. Only 33% of those students scored at or above the satisfactory level of composite critical thinking scores, below the 75% goal. The scores align to specific indicators of critical thinking with 40% at or above the satisfactory level for influence of context, 33% for use of evidence, and only 26% for bias.

For cultural and historical understanding, 35% of students within the sample of papers collected from students in Gordon-Rule Humanities courses scored at or above the satisfactory level of composite cultural and historical understanding scores, below the 75% goal. The scores align to specific indicators of cultural and historical understanding with 43% at or above the satisfactory level for demonstrating knowledge and only 27% for application. The Lead LOL for Humanities described these scores as an improvement since, “A higher percentage of students who are identifying the events are using them.” While student demographics were not analyzed in relation to the sample papers, success rates in Greek and Roman Humanities (one of the highest enrolled Gordon-Rule Humanities courses) are evidence of a gap between the lowest grades for African American males (67.7% success rate) and the highest grades.
for Caucasian females (81.4% success rate). Since cultural and historical understanding is crucial to success in the humanities, students not succeeding in the course may also be those not mastering this outcome.

For information literacy, 33% of students within the sample of papers collected from students in Gordon-Rule Humanities courses scored at or above the satisfactory level of composite information literacy scores, below the 75% goal. The scores align to specific indicators of information literacy with 36% at or above the satisfactory level for selection of sources, 32% for citation of sources and formatting references, and 31% for integration of sources. The Lead LOL for humanities stated the next step, “We have to work to more closely align what we are asking students to do with what they can and should be demonstrating in their assessments.”

For written communication, 50% of students within the sample of papers collected from students in Gordon-Rule Humanities courses scored at or above the satisfactory level of composite written communication scores, below the 75% goal. The scores align to specific indicators of written communication with 50% at or above the satisfactory level for logic and organization, 46% for purpose, and 42% for accuracy. The Lead LOL for Humanities reported, “We sought to have a discussion about what we can reasonably expect all students to demonstrate as a result of their required writing at Valencia.”

**Next steps to improve student learning**

Humanities faculty refined a standardization of the assignments associated with Gordon-rule writing courses as a result of Assessment Day conversations in Summer 2018. The new guidelines require faculty to ask students to use a source or sources, document sources, identify particular historical events or movements in their paper, and use the sources and events or movements in analysis in their paper. Additionally, faculty will practice a “Thesis check” before submissions and discuss with students the importance of aligning topic sentences with a thesis. The new guidelines will be redistributed as part of the updated assessment packet to all faculty through the assessment sandbox course in Canvas during Fall 2018.

Faculty also plan to formalize critical thinking PowerPoint presentations into one that can serve as a template for all full- and part-time faculty. There are plans to research the narrowing (or expansion) of the gender/ethnicity gap in course success before and after Senate Bill 1720 to determine whether to focus more energies on student reading or on student writing with the goal of producing a Written Communication module to be embedded in Canvas by 2020. There are also plans to create a Cultural and Historical Understanding module that introduces students to cultural and historical understanding through critical thinking and information literacy by 2020.

**Evidence of seeking improvement from prior year**

The improvement plan for critical thinking that was implemented in 2017-18 was focused on getting faculty access to a PowerPoint resource that discusses critical thinking, including using context. The goal was to be relevant to the students’ development of critical thinking skills and increase faculty exposure to these teaching materials. The post-course assessment in Spring 2018 included two questions related to the use of the critical thinking resource as evidence of the implementation. Most of the students completing the assessment, 94%, reported their faculty spent time on critical thinking and 70% said they
were exposed to a PowerPoint discussing evidence, bias, and context. As a result, the student scores on the post-course assessment were higher than the pre-course for the first time in three assessment cycles.

The improvement plan for cultural and historical understanding included the Lead LOL sharing sample papers that were and were not successful on the cultural and historical understanding indicators through the course that faculty have access to for assessment in the Learning Management System. This access was intended to assist faculty in knowing more precisely why students are not consistently demonstrating cultural and historical understanding. The 2017-18 student scores for cultural and historical understanding went down overall, but the percentage of students who effectively used historical events went up to 27% from 17%. This may be evidence of faculty referring to the sample papers as resources for better instructing their students to use the historical events they write about to explain ideas in their assignments.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 listed the critical thinking evidence from humanities courses as not meeting faculty goals and not improving; critical thinking results from the 2017-18 cycle show some improvement, though still not meeting faculty goals. The summative general education outcome report for 2016-17 listed the cultural and historical understanding, information literacy, and written communication evidence from humanities courses as improving, but not meeting faculty goals; composite results from the 2017-18 cycle decreased percentages of students meeting faculty goals across cultural and historical understanding, information literacy, and written communication. There were two specific areas of improvement on the cultural and historical understanding indicator for effectively using historical events and on the written communication indicator for logic and organization.

The measure of critical thinking used during the 2017-18 cycle were a repeat of the assessment from the prior year with the same assignment and two additional measures of perceived exposure to critical thinking. The percentage of humanities students who participated in both the pre- and post-course assessment performing at or above the satisfactory level is up from 55% in 2016-17 to 64% in 2017-18, continuing the increase from 52% in 2015-16.

The measure of cultural and historical understanding used during the 2017-18 cycle was a repeat of the assessment from the prior year with the same assignment. The percentage of humanities students performing at or above the satisfactory level of demonstrating historical knowledge is down from the 52% in 2016-17 to 43% in 2017-18, but still up from 25% in 2015-16. The percentage of Humanities students performing at or above the satisfactory level of effectively using historical events is up from the 17% in 2016-17 to 27% in 2017-18, higher than even the 23% in 2015-16.

The measure of information literacy used during the 2017-18 cycle was a repeat of the assessment from the prior year with the same assignment. The percentage of humanities students performing at or above the satisfactory level for selection of sources is down from the 48% in 2016-17 to 36% in 2017-18, but still up from 25% in 2015-16. The percentage of humanities students performing at or above the satisfactory level in citation of sources is down from the 42% in 2016-17 to 32% in 2017-18, but still higher than the 18% in 2015-16. The percentage of humanities students performing at or above the satisfactory level in formatting references is down from the 54% in 2016-17 to 32% in 2017-18, but still higher than the 25% in 2015-16. The percentage of humanities students performing at or above the satisfactory level in
integration of sources is down from the 38% in 2016-17 to 31% in 2017-18, but still higher than the 20% in 2015-16.

The measure of written communication used during the 2017-18 cycle was a repeat of the assessment from the prior year with the same assignment. The percentage of humanities students performing at or above the satisfactory level for logic and organization is up from the 39% in 2016-17 to 50% in 2017-18, continuing the improvements from 32% in 2015-16. The percentage of humanities students performing at or above the satisfactory level in writing purpose is down from the 48% in 2016-17 to 46% in 2017-18, but still higher than the 24% in 2015-16. The percentage of humanities students performing at or above the satisfactory level in writing accuracy is down from the 45% in 2016-17 to 42% in 2017-18, but still higher than the 23% in 2015-16.

Mathematics—Overview of 2017-18 assessment activities

To measure critical thinking in College Algebra courses (MAC 1105), a question was administered as part of the final exam during Spring 2018. A sample of 250 was requested, of which 136 were scored by faculty members, a 54% response rate (down from 69% in 2016-17).

To measure critical thinking and quantitative reasoning in Statistical Methods courses (STA 2023), a question was administered during a proctored final exam during Fall 2017. A sample of 300 was requested, of which 227 were assessed, a 76% response rate (up from 70% in 2016-17).

Results, including any relevant underserved populations

In College Algebra, 34% of the students performed at or above the satisfactory level for critical thinking, well below the 75% goal. 36% of Hispanic students and 37% of African American students scored at or above the satisfactory level, higher than the full sample set and comparable to 38% of Caucasian students. Based on the results, students still need help recognizing and utilizing linear models.

In Statistical Methods, 37% of students scored at or above the satisfactory level for critical thinking and 42% for quantitative reasoning, both below the 50% goal. Only 30% of African American students scored at or above the satisfactory level for quantitative reasoning and 30% of African American students scored at or above the satisfactory level for critical thinking, both considerably lower than the full sample set. Mixed-mode modality students underperformed in critical thinking as compared to face-to-face and online modality students with only 33% scoring at or above the satisfactory level. The Lead LOL for the statistics pathway stated, “There continues to be room for improvement in our instructional methods.”

Next steps to improve student learning

Algebra faculty plan to create an instructional tool (series of lectures, worksheets, projects, etc…) for critical thinking. They also plan to ensure that students are exposed to multiple mathematical models and applications, emphasize how to compare suitable mathematical models, and inform the math support centers about how to best help students identify models and apply them to real-world applications.

Statistics faculty refined and redistributed the assessment question and associated rubrics during a training session in Summer 2018 in order to serve as an informal instructional guideline. They also plan to emphasize the importance of and demonstrate how to manually calculate the test statistic for a one-
sample mean T-test, require students to manually compute the test statistic for a one-sample mean T-test at least once during the course as part of a formative or summative assessment, and place additional emphasis on step 1 of the hypothesis testing procedure: develop the correct pair of hypotheses.

Liberal Arts Math faculty plan to create professional development courses to develop needed skills in faculty. These courses will increase the capacity of faculty as they learn what builds critical thinking and quantitative reasoning in students.

Evidence of seeking improvement from prior year

The improvement plan for the statistics pathway that was implemented in 2017-18 included specific expectations for faculty about what they should be demonstrating in the classroom with an emphasis on creating opportunities for formative and summative assessment of critical thinking and quantitative reasoning skills. As a result, measurement of each outcome improved by 15 percentage points, with quantitative reasoning closer to the stated faculty goal. The improvement plan for 2018-19 is stronger since it included a faculty development meeting held during Summer 2018 where 10 faculty communicated strategies for faculty to improve student performance. These faculty also enhanced the assessment tool with clearer expectations, and they committed to carry out conversations about strategies on their campuses as well.

The improvement plan for the algebra pathway that was implemented in 2017-18 was a continuation of the previous cycle focused on providing faculty with resources for teaching students applications. The continuation only resulted in a 3 percentage point increase in the measurement of critical thinking. The improvement plan for 2018-19 includes faculty implementing a new instructional tool for critical thinking determined by a survey in Fall 2018.

The improvement plan for the Liberal Arts pathway for 2018-19 includes faculty development courses associated with critical thinking and quantitative reasoning. The success of the implementation of the plan will be measured through a pre- and post-test assessment of students in MGF1106 College Mathematics and/or MGF 1107 Math for Liberal Arts.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 listed critical thinking and quantitative reasoning as not meeting faculty goals and not improving; math results from the 2017-18 cycle show some improvement, though still not meeting faculty goals.

For critical thinking, the percentage of algebra students performing at or above the satisfactory level is up from 31% in 2016-17 to 34% in 2017-18, but still below the 41% from 2015-16. The percentage of statistics students performing at or above the satisfactory level is up from 22% in 2016-17 to 37% in 2017-18.

For quantitative reasoning, the percentage of statistics students performing at or above the satisfactory level is up from 27% in 2016-17 to 42% in 2017-18.
New Student Experience—Overview of 2017-18 assessment activities

To measure critical thinking in the New Student Experience course (SLS 1122), student scores for two items on the Academic Blueprint rubric were collected through BlackBoard using the software building block EAC Visual during Fall 2017 and Spring 2018. With 15,080 students expected, scores were collected from 8,503 students, a response rate of 56% (down from the 57% response rate in the previous cycle measuring the same outcome).

To measure oral communication in the New Student Experience course (SLS 1122), student scores for one item on the Final Story Project rubric were collected through BlackBoard using the software building block EAC Visual during Fall 2017 and Spring 2018. With 15,080 students expected, scores were collected from 8,060 students, a response rate of 53% (down from the 57% response rate in the previous cycle measuring the same outcome).

To measure interpersonal communication in the New Student Experience course (SLS 1122), student scores for one item on either the Personal Connection Co-Curricular rubric (onsite students) or the Career Interview rubric (online students) were collected through BlackBoard using the software building block EAC Visual during Fall 2017 and Spring 2018. With 15,080 students expected, scores were collected from 6,609 students, a response rate of 44% (up from the 37% response rate in the previous cycle measuring the same outcome using a different rubric).

Results, including any relevant underserved populations

For critical thinking, 88% of students scored at or above the satisfactory level (top 2 of the 3 achievement levels on Part 3B) which is below the 90% goal set based on the high success rates of previous assessments. Students scored lower on a second measure of critical thinking added this cycle which engages higher levels of critical thinking by requiring students to include a rationale and steps to take; only 82% of students scored at or above the satisfactory level (on Part 4). The Lead LOL for The New Student Experience documented concerns that were raised about, “Length of the assignment (10 pages, mostly directions) and if students do not pay attention to details or address all of the questions in the Part 4 action plan.”

For oral communication, 94% of students scored at or above the satisfactory level (top 2 of the 3 achievement levels) which is just above the 90% goal that was set high based on success in previous assessments. Some inflation of the scores may be a result of online students (and also some students in hybrid/mixed mode and face to face courses) who were permitted to upload a video or other form of presentation that did not necessitate presenting ‘live’ in class to assess for oral communication. The Lead LOL for the New Student Experience stated the awareness among faculty that, “Teaching proper public speaking skills is not embedded in the course.”

For interpersonal communication, 87% of students scored at or above the satisfactory level (top 2 of the 3 achievement levels) which is below the 90% goal that was set high based on the success of previous assessments. The Lead LOL for the New Student Experience commented, “Faculty use of the LibGuide and reinforcement through other class activities will promote student development of interpersonal communication skills.”
Next steps to improve student learning

The New Student Experience Learning Outcome Leaders recommended a faculty development course to include norming activities related to assignments aligned with critical thinking, oral communication, and interpersonal communication. The curriculum outline and mixed-mode approach for Implementing Rubrics for Program Assessment (3PD) was developed by the Lead Learning Outcome Leader and the Learning Assessment office during Summer 2018 for specialized NSE offerings to begin Spring 2019.

The existing rubrics were embedded in Canvas (the Learning Management System) at the start of Summer 2018 for three faculty to pilot. The pilot was completed and updates were made prior to the end of Summer 2018 and the rubrics were made available for inclusion in all New Student Experience courses for the full-assessment during Fall 2018. Associated instructions and instructional videos for importing and scoring in the rubrics were created and delivered to faculty through the Deans of Learning Support and the Directors of Faculty Development on each campus.

Evidence of seeking improvement from prior year

The improvement plan for The New Student Experience course that was implemented in 2017-18 included a team of faculty to develop resources for faculty focused on underserved students and a team of faculty to improve the ease of data collection. The work on resources for faculty began in Summer 2017 and the assessment data was not disaggregated by gender and ethnicity in 2017-18. The team improving data collection began in Spring 2018 and embedded the assessment scoring into Canvas, the college’s new LMS. As a result, measurement of each outcome will be easily matched to student variables like gender and ethnicity and disaggregated in 2018-19. The improvement plan for 2018-19 includes developing a faculty development workshop that incorporates the four New Student Experience assessment assignments in order to increase the rigor by which students master the outcomes. The improvement plan for 2018-19 is stronger since it includes collaboration with the Learning Assessment office and Faculty Development to ensure the plans are implemented.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 mentioned the critical thinking evidence from The New Student Experience course as representative of students mastering an introductory level of critical thinking necessary for college-level material, but not meeting higher level standards as they progress through the curriculum. The two-part critical thinking assessment for The New Student Experience in 2017-18 provides further evidence with students not meeting the new, higher faculty goals and succeeding at a lower rate on the measure of more complex critical thinking. The summative general education outcome report for 2016-17 listed oral and interpersonal communication as meeting faculty goals; results from The New Student Experience course for oral communication from the 2017-18 cycle still meet faculty goals, but results for interpersonal communication did fall below faculty goals for the 2017-18 cycle.

The measures of critical thinking used during the 2017-18 cycle were a repeat of the assessment from the prior year with the same assignment and one additional measure. The percentage of New Student Experience students performing at or above the satisfactory level is the same as the 88% in 2016-17, and still up from 86% from 2015-16. Only 82% of the New Student Experience students scored at or above
satisfactory on the new, more complex measure of critical thinking in 2017-18. The measure of oral communication used during the 2017-18 cycle was a repeat of the assessment from the prior year with the same assignment. The percentage of New Student Experience students performing at or above the satisfactory level is slightly down from the 96% in 2016-17 to 94% in 2017-18, and still up from 85% in 2015-16. The measures of interpersonal communication used during the 2017-18 cycle were repeats of the assessments from the prior year with the same assignments. The percentage of New Student Experience students performing at or above the satisfactory level is down from the 93% in 2016-17 to 87% in 2017-18, slightly below the 88% in 2015-16.

Science—Overview of 2017-18 assessment activities

To measure critical thinking and scientific reasoning in science courses (all AST, BOT, BSC, CHM, ENY, ESC, EVR, GLY, HOS, IPM, MCB, MET, OCB, OCE, ORH, PCB, PHY, PLP, PLS, and SWS prefixes), students were invited to complete a short multiple-choice assessment online during Fall 2017. Students were given a short scenario describing a scientific study/data set including relevant background. The assessment included 4 questions to assess critical thinking and scientific reasoning by asking students to analyze the scenario for the initial observations, question, hypothesis, and to analyze the results provided in the study to understand relationships of the data that lead to forming conclusions. 12,869 students were invited, of which 1,648 students took four minutes or more on the assessment, a response rate of 13% (down from 18% in 2016-17).

Results, including any relevant underserved populations

Only 43% of students scored at or above the satisfactory level (3 or more questions correct) in critical thinking and scientific reasoning which is below the 70% goal. There is a need to increase the student response rate for analysis of variations between race/ethnicity and gender groups. The Lead LOL for science observed, “Discrepancies seen among racial/ethnic and gender groups may be a reflection of several factors including lack of familiarity and/or confidence in performing tasks assessed.”

Next steps to improve student learning

Science faculty facilitated by the Learning Outcome Leaders on Assessment Day in May 2018 listed over 100 improvement strategies, most of which were classroom activities for enhancing student understanding of the scientific method which individual faculty members can implement prior to the post-test assessment. The additional strategies, involving improvement of the assessment and the immediacy of feedback from the assessment, were incorporated in the assessment tool for 2018-19 developed during Summer 2018. Improvements include the addition of a pre-test, segmenting the reading sections of the research study for assistance with student comprehension, immediate feedback to student in the form of tutorials that are automated based on their pre-test score, and instructor access to student mastery levels associated with each outcome. The student feedback and faculty access to student levels are intended to inform both learning and instruction.

The new pre- and post-tests with tutorials were embedded in Canvas (the Learning Management System) during Summer 2018. The pilot will occur in Fall 2018 with improvements and adjustments made in time for the module of pre-tests, tutorials, and post-tests to be available for inclusion in all science courses for the full-assessment during Spring 2019.
Evidence of seeking improvement from prior year

The improvement plan that was implemented in 2017-18 was a continuation of the previous cycle providing students with access to a tutorial on the scientific method prior to completing the assessment. As a result, faculty anticipated to see similar trends in race/ethnicity and gender disparities among assessment scores that would serve as confirmation of the disparities. The continuation along with the drop in student response rate resulted in a 3 percentage point decrease in the measurement of critical thinking and scientific reasoning.

Multiple year comparison, by outcome

The summative general education outcome report for 2016-17 listed critical thinking as not meeting faculty goals and not improving; results from science for critical thinking from the 2017-18 cycle show the same situation. The summative general education outcome report in 2016-17 listed scientific reasoning as not meeting faculty goals, though improving; scientific reasoning results from the 2017-18 cycle show a decline instead of further improvement toward faculty goals.

The measures for critical thinking and scientific reasoning used during the 2017-18 cycle were a repeat of the assessment from the prior year using the same physics scenario. The percentage of science students performing at or above the satisfactory level in critical thinking and scientific reasoning is down from 46% in 2016-17 to 43% in 2017-18, but still above the 34% in 2015-16.

Social Science—Overview of 2017-18 assessment activities

To measure critical thinking in introductory social science courses (AMH 2020, ANT 2000, ECO 2013, POS 2041, PSY 2012, and SYG 2000), students were invited to complete a ten-item, multiple-choice assessment online during Fall 2017. Students were given a randomized set of ten questions from a 23-item question bank developed and revised by faculty in all six areas of social science to assess the ability to understand context, use evidence, and look for bias when evaluating claims. With 8,371 students invited, 1,940 students took the assessment, a response rate of 23% (down from the 31% response rate in 2015-16, the last cycle measuring this outcome).

Results, including any relevant underserved populations

53% of students scored at or above the satisfactory level in critical thinking (7 or more questions correct), which is below the 70% goal. The average score for African American males was 60.1% which was below all other ethnicities of males, but above African American females at 59.5%. The Lead LOL for social science stated challenges, including, “Getting students to take and complete the assessment, and getting students to apply themselves to the best of their abilities, both on the assessment and in class.”

Next steps to improve student learning

To improve faculty access to results relevant to their social science courses, faculty plan to develop a new instrument in which students watch a video that addresses an issue relevant to all of the social science courses in the General Education Core and then respond to multiple choice questions which
assess their critical thinking about the claims made in the video. With a pre- and post-test design, faculty will have direct access to their students’ results in order to assess their improvement over the semester.

Evidence of seeking improvement from prior year

The improvement plan that was implemented during 2017-18 related to the results from the 2016-17 assessment of ethical responsibility and included the development of a module in Canvas (the Learning Management System) with a segment of the code of conduct most related to students’ reasoning about ethical responsibility. During Fall 2018 faculty and deans received instructions for how to embed the module in their Canvas courses and reminders that they agreed to full implementation within all online sections of the social science courses in the General Education Core. During the 2018-19 cycle students will complete the same tool as in 2016-17, embedded this time in Canvas, in an effort to increase student responses and faculty access to direct evidence of their students’ mastery.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 listed critical thinking as not meeting faculty goals and not improving; results from social science for critical thinking from the 2017-18 cycle show the same situation.

The measure for critical thinking used during the 2017-18 cycle was a repeat of the assessment from 2015-16, the last time social sciences assessed for critical thinking. The percentage of social science students performing at or above the satisfactory level in critical thinking and scientific reasoning is down from 65% in 2015-16 to 53% in 2017-18.

Speech—Overview of 2017-18 assessment activities

To measure interpersonal communication in interpersonal communication courses (SPC 1017), students were invited online to complete a 20 question self-reporting survey at the beginning and end of the Spring 2018 semester. The survey was made up of contextualized statements to assess students’ self-awareness skills in different situations. With 1,339 students invited, 455 students took the pre- and post-assessment, a response rate of 34% (up from the 28% response rate in the previous cycle measuring the same outcome). A subsection of SPC 1017 courses required students to complete the assessment in the Fall 2017 as a pilot; those results were used to improve the survey tool and are not included in the data in this report.

To measure oral communication and information literacy in speech courses (SPC 1608), students delivered their researched informative or persuasive speeches and faculty evaluated them for each outcome on a scale (accomplished, attempted, not attempted) during Spring 2018. With 3,379 students expected, scores were collected from 3,056 students, a response rate of 90% (slightly down from the 91% response rate in the previous cycle measuring the same outcome).

Results, including any relevant underserved populations

77% of students in SPC1017 scored at or above the satisfactory level in interpersonal communication (defined as those students who scored in either the “competent” or “advanced” categories on the post-test) which is above the 70% goal. Results for students enrolled in one of their first five courses were also
above the 70% goal with 76% of students who were still completing their first five and had been successful in all of those courses at or above the satisfactory level, and 74% of those who had not been successful in more than one of their first five courses still scoring at or above the satisfactory level. The Lead LOL for speech reported, “We learned that students are consistently making progress in self-awareness through the activities done in the SPC1017 course. This was evident through the increase in student scores and their written responses to the open-ended statements.”

72% of students in SPC 1608 scored “accomplished” (top 2 of the 3 achievement levels) in oral communication, which is above the 70% goal based on the prior assessment cycle. For all speech students taking one of their first five classes, there was improvement in the adeptness of their verbal citation. Faculty had hoped that the progress made with the video intervention in 2016-17 would continue to assist students in their ability to provide verbal citations for their research that include both the source and a qualifying statement for that source. The video is formatted as a peer to peer instruction with representatives of Caucasian and African American female students. The Lead LOL for speech reported, “We learned that the use of a supplemental video with a student-to-student approach was successful in helping students do better verbal citations of academic sources.”

Next steps to improve student learning

Speech faculty participated in a survey related to how they support their students’ audience analysis. Results from the survey combined with the baseline assessment from this cycle will inform the development of a peer-to-peer “how-to” video following the successful model of the peer-to-peer video for oral citations. The video which features representatives from the discipline’s two most underserved populations, African American and Hispanic males, will be produced in Fall 2018 and integrated to all SPC 1608 courses in Spring 2019.

Interpersonal Communication faculty will collaborate to write conflict scenarios that the students rank in terms of their experience with them. The data from this baseline assessment will inform improvement strategies in future cycles. The scenarios will be assessed in Spring 2019 in SPC 1017 courses.

Evidence of seeking improvement from prior year

The improvement plan for interpersonal communication that was implemented in 2017-18 included reviewing and refining the interpersonal communication LibGuide during Summer 2017. The self-awareness statements on the assessment were also refined by a group of faculty who conducted the pilot of the new statements in Fall 2017. The results were a third and final successful assessment cycle where the focus was on the self-awareness aspects of interpersonal communication. The assessment activities were adapted for continuous use in SPC 1017 courses without requirements for assessment reporting.

The improvement plan for oral communication and information literacy that was implemented in 2017-18 was a continuation of the prior cycle enhancing student’s inclusion of oral citations by increased exposure to the peer-to-peer video resource.

Multiple year comparison by outcome

The summative general education outcome report for 2016-17 listed interpersonal and oral communication as meeting faculty goals. Results from the 2017-18 cycle for interpersonal communication
showed decreased percentages of students meeting faculty goals due to intentional adjustment of the scale for self-assessments to increase rigor, but the percentage still met faculty goals. Results from the 2017-18 cycle for oral communication were much improved as a result of the sustained efforts on the improvement plan, and the results met the new faculty goals which were raised considerably from the prior cycle.

The measure of interpersonal communication used during the 2017-18 cycle was an updated pre- and post-test, self-assessment of self-awareness with a scale that was more rigorous. The percentage of interpersonal communication students who participated in both the pre- and post-test performing at or above the satisfactory level was down from 98% in 2016-17 to 77% in 2017-18, but still up from the 71% in 2015-16.

The measure of oral communication used during the 2017-18 cycle was a repeated identical assessment from 2016-17. The percentage of speech students performing at or above the satisfactory level was up from 50% in 2016-17 to 72% in 2017-18, continuing the increase from 41% in 2015-16.

**General Education**

Assessments embedded in humanities, mathematics, and science provide evidence that students need further improvement. Humanities faculty plan to support students with specific guidelines that encourage deeper connection to the material they are learning, mathematics faculty plan to develop instructional tools that support students practicing the expected skills more than once, and science faculty plan to develop a series of pre-assessments and tutorials that support student learning. As a result of these approaches to improved delivery of content and repeated practice for students, students will have better opportunity to meet the learning outcomes.

Assessments embedded in the New Student Experience, social science, speech, and interpersonal communication disciplines provide evidence that students are performing at the satisfactory level. All of these disciplines plan to participate in a streamlined approach to assessment data gathering embedded in the new Learning Management System (Canvas). The New Student Experience faculty plan to increase the participation of faculty through a faculty development course, social science faculty plan to assess for more applied understanding of concepts, speech faculty plan to incorporate aspects of information literacy into their assessments, and interpersonal communication faculty plan to assess different applications of interpersonal skills. The general education curriculum at the college will be strengthened by the expanded efforts to consider additional aspects of students’ learning and faculty involvement within the assessment process.

All disciplines are incorporating data related to underserved populations in their 2018-19 assessment plans in support of Valencia's Impact Plan goal to “close performance gaps among students from diverse backgrounds” (Opportunity and Equity Goal #2). Speech faculty have taken action as a result of the disaggregated data by adapting supportive learning materials to be culturally responsive. The set of disciplines with the students performing at the satisfactory level have all adopted the streamlined approach of collecting data through Canvas which allows for more standardized disaggregation of data to ensure performance gaps among underserved populations can be identified and measured.

### 2017-18 Learning Outcomes Map

#### The Assessment of Student Learning Outcomes in General Education 2017-2018

<table>
<thead>
<tr>
<th>General Education Learning Outcomes</th>
<th>Communications</th>
<th>Critical Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSE Assignments with Rubric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Assignment with Checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randomized Sample Comp I &amp; II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech Assignment with Checklist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randomized Sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X All Gen Ed. Math Classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X All Gen Ed. Science Classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written Communication</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Interpersonal Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ethical Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cultural Bi/Bihistorical Understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X All Gen Ed. Humanities Classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Additional information and resources available at the Valencia Institutional Assessment webpage [http://valenciacollege.edu/VIA](http://valenciacollege.edu/VIA)