



**Rio Salado College  
Assessment of Student Learning  
Annual Report  
2012-2013**

## **Introduction**

Rio Salado College's first assessment plan was implemented in 1991. In the two decades since then, ongoing assessment initiatives aimed at increasing student learning have continued to demonstrate evidence of the College's central focus on this work. Student learning outcomes are measured at the College level, the program level (as part of Program Review) and via the continuous improvement Plan-Do-Check-Act (PDCA) cycle at the course level. Collectively, these efforts provide a solid infrastructure for assessing and increasing student learning at Rio Salado.

Over the years, the College's assessment plan has progressed from a static document that was reaffirmed on a periodic basis, to a dynamic, ongoing, and evolving series of activities that are integrated across the teaching and learning spectrum.

The Learning Assessment Team includes representation from Faculty Chairs, Senior Administration, Institutional Research, and Co-Curricular Services, and has responsibility for coordinating all aspects of assessment of student learning.

The College maintains a public Assessment of Student Learning website so that the College's assessment data and processes are transparent and available to all stakeholders. This site may be viewed at: <http://www.riosalado.edu/about/teaching-learning/assessment/Pages/SLO.aspx>

## College-wide Assessment

The **ETS (Educational Testing Service) Proficiency Profile** was completed by 154 students during spring 2013. The assessment was delivered in an online format, and was divided into seven sections: humanities, social sciences, natural sciences, college level reading, college level writing, critical thinking, and mathematics. The overall scores on the ETS Proficiency Profile declined in comparison with 2010 when the assessment was last administered, as did the subscores in all of the skill areas except for Mathematics. Similar declines were seen, however, in the national comparison sample during the same timeframe.

Rio Salado students continued to outperform the national comparison sample in all skills areas.

<b>Table I</b>				
<b>Rio Salado College ETS Proficiency Profile Summary Data</b>				
<b>2012-2013</b>				
	<b>Distance Learning</b>	<b>Dual Enrollment</b>	<b>45+ Credits</b>	<b>Possible Range</b>
	<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	
<b>Skills Subscores:</b>				
Critical Thinking	112.51	114.02	113.51	100 to 130
Reading	118.00	119.10	120.21	100 to 130
Writing	115.51	116.73	116.09	100 to 130
Mathematics	114.92	116.17	113.42	100 to 130
<b>Context-Based Subscores:</b>				
Humanities	116.39	116.98	117.77	100 to 130
Social Sciences	113.84	115.15	115.49	100 to 130
Natural Sciences	116.04	117.62	116.81	100 to 130
<b>Total Scores</b>	<b>448.12</b>	<b>452.71</b>	<b>449.62</b>	<b>400 to 500</b>

<b>Table II</b>					
<b>Rio Salado College</b>					
<b>ETS Proficiency Profile</b>					
<b>Longitudinal Data</b>					
	<b>Spring 2006 (N = 209)</b>	<b>Spring 2008 (N = 210)</b>	<b>Spring 2010 (N = 195)</b>	<b>Spring 2013 (N = 154)</b>	<b>Possible Range</b>
	<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	<b>Avg</b>	
<b>Skills Subscores:</b>					
Critical Thinking	114.74	113.5	114.94	113.36	100 to 130
Reading	121.38	119.49	121.28	119.13	100 to 130
Writing	117.00	116.03	116.77	116.12	100 to 130
Mathematics	117.47	114.62	114.73	114.82	100 to 130
<b>Context-Based Subscores:</b>					
Humanities	117.62	116.96	118.62	117.06	100 to 130
Social Sciences	116.33	115.63	116.63	114.85	100 to 130
Natural Sciences	118.65	116.73	118.43	116.84	100 to 130
Total Scores	455.79	450.03	454.16	450.19	400 to 500

## **Course-level Student Learning Outcomes**

### **NGLC Wave IIIb Grant-Funded Assessment**

Rio Salado was awarded an NGLC (Next Generation Learning Challenges) Wave IIIb grant in fall, 2012. As one of the initiatives funded by this grant, student learning outcomes in Critical Thinking and Writing are being measured in selected high-enrollment, General Education courses through implementation of GEAR (**G**uided **E**valuation for **A**ssessment **R**eview) methodology.

GEAR is a technology-based, faculty-developed solution that contains an integrated set of teaching tools intended to increase feedback quality and consistency, as a fundamental component for providing guidance that promotes learning as part of assessment. The system provides students with enhanced feedback, consistent grading, and an improved learning experience. The revolutionary design enables instructors to focus efforts on providing targeted and personalized feedback within the RioLearn system. Instructors are able to integrate additional content and examples that make conceptual linkages and illustrate real-world applications in the online feedback provided to students. The system resources include options for providing the student with:

- **Mini-teach:** Links concept knowledge to *examples* in the real-world. Also, suggests additional web-based resources for students who wish to investigate the topic further.
- **General performance-based comments:** Includes few sentences that provide a general statement about a student’s performance on a given component of the assignment (categories include *Excellent, Very Good, Good, or Needs Improvement*). The general performance-based comments lead into the specific concept-based comments/examples.
- **Specific concept-based comments:** Each concept included within the assignment includes a definition and brief example to illustrate *Knowledge and Application*.

GEAR data related to Writing and Critical Thinking Student Learning Outcomes in a number of identified courses will be collected and compared against baseline data collected in courses that currently do not have GEAR implemented. Funding from the grant will be utilized to expand GEAR across the curriculum.

<b>Course-Level PDCA Cycles</b>
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During FY2012-13, Rio Salado College measured student learning outcomes at the course level via the Plan-Do-Check-Act (PDCA) cycle in the following areas: Writing, Information Literacy, Critical Thinking, and Sustainability.

**Critical Thinking: Course-Level Data  
Plan-Do-Check-Act (PDCA) Cycles**

Faculty Chairs continued their focus on the Critical Thinking learning outcome in a series of continuous PLAN-DO-CHECK-ACT cycles at the program and department levels. All cycle progress is recorded on Rio Salado’s College-Wide Assessment of Student Learning SharePoint Site, and is accessible to Assessment of Student Learning team members and Faculty Chairs.

Improvement cycles were initiated in twelve courses during FY2012-13. Two full PDCA cycles were completed. Four cycles ended after the baseline collection phase, as students met the college-wide target of 80% at or above the college level. One cycle ended due to low enrollment, and another ended because the baseline was nearly met and additional interventions are planned for the upcoming fiscal year. Seven PDCA cycles are currently in process, carrying over into the 2013-14 fiscal year. The cycle progress updates, including the number of students impacted, are shown in Table III.

<b>Table III</b>	
<b>Critical Thinking Cycle Progress for FY2012-13</b>	
<b>Cycle Progress Update</b>	<b>N</b>
Programs that have improvement cycles*	4
PDCA cycles completed	2
PDCA cycles ended (as baseline students met college level)	4
PDCA cycles ended (for other reasons)	2
PDCA cycles in progress	7
Courses involved	12
Students impacted during PDCA cycles	543

\*Note: The General Education program has five disciplines running a total of six Critical Thinking cycles.

Results of the College's Assessment of Critical Thinking for FY2012-13 are shown in Tables IV-VI:

<b>Table IV</b>	
<b>PDCA cycles ended after the "Plan" phase because the 80% target was met with the baseline</b>	
<b>Course</b>	<b>% at or above college level after baseline</b>
PHY101	83.33%
LET106	93.50%
PSY101	88.65%
POS222	96.10%

<b>Table V</b>			
<b>Completed PDCA Cycles that did not increase learning</b>			
<b>Course</b>	<b>% at or above college level before intervention</b>	<b>% at or above college level after intervention</b>	<b>Action taken</b>
ENG102	70.97%	65.56%	New cycle/different intervention

Table VI	
Courses that ended PDCA cycles after the baseline for other reasons	
<b>Course</b>	<b>Reason ended</b>
CIS259	Low Enrollment
COM100	No video capability & nearly met baseline

Table VII	
Critical Thinking PDCA Cycle Courses in Progress	
BIO100	HIS103
ECN212	HIS104
EDU220	PSY101
ENG102	

The ENG102, HIS103, and HIS104 Critical Thinking cycles currently in process are part of the NGLC Wave IIIb grant work detailed earlier. As part of the **Plan** phase, baseline data for these high-enrollment courses is currently being pulled in preparation for integrating the GEAR methodology (the **Do** phase). Data will be pulled after the GEAR deployment to **Check** the effectiveness of this intervention and assess the viability of **Acting** on a large-scale implementation. Critical Thinking PDCA cycles with GEAR interventions will be initiated in FY2013-14 for CRE101, GBS233, and MAT151.

### Information Literacy: Course-Level Data Plan-Do-Check-Act (PDCA) Cycles

The **Research Readiness Self-Assessment (RRSA)** was originally administered in 2010 to collect baseline data on students' online Information Literacy skills (the **Plan** phase). Subsequently, as a result of the baseline findings that students were performing below College-level in some areas, interventions were inserted into 30 online courses across multiple disciplines in 2011 (the **Do** phase). The RRSA is currently being re-administered as part of the **Check** phase to determine whether these interventions have had an impact on student learning in the area of Information Literacy, as compared with the baseline data collected in 2010. Because of a low survey return rate to date, it has been decided to expand the sample through fall 2013 before analyzing and assessing whether further action is necessary (the **Act** phase).

## Writing: Course-Level Data Plan-Do-Check-Act (PDCA) Cycles

Course level Writing assessment cycles continued throughout FY2012-13. All cycle progress is recorded on Rio Salado's Assessment of Student Learning SharePoint site and is accessible to Learning Assessment Team members and Faculty Chairs.

<b>Table VIII</b>	
<b>Writing Cycle Progress for FY2012-13</b>	
<b>Cycle Progress Update</b>	<b>N</b>
Programs that have improvement cycles*	6
PDCA cycles completed	0
PDCA cycles ended (as baseline students met college level)	3
PDCA cycles ended (for other reasons)	3
PDCA cycles in progress	2
Courses involved	8
Students impacted during PDCA cycle**	43

\*Note: The General Education program has two disciplines each running a Writing cycle.

\*\*Includes students impacted by new version of FON143.

<b>Table IX</b>	
<b>PDCA cycles ended after the "Plan" phase because the 80% target was met with the baseline</b>	
<b>Course</b>	<b>% at or above college level after baseline</b>
BIO156	83.71%
ELN110	88.89%
LET106	95.83%

<b>Table X</b>	
<b>Courses that ended PDCA cycles after the baseline for other reasons</b>	
<b>Course</b>	<b>Reason ended</b>
FON143	Course was modified, removing the assignment being evaluated
HCR230	Dimensions did not align/no meaningful data could be collected
LET224	Dimensions did not align/no meaningful data could be collected

The following courses have active cycles for FY2012-13 and are part of the NGLC Wave IIIb grant. These courses are being evaluated for writing skills before and after the implementation of the GEAR tool.

<b>Table XI</b>	
<b>NGLC Wave IIIb Gear Courses</b>	
<b>Writing PDCA Cycle Courses in Progress</b>	
ASD100	FON241
CHM130	GBS233
CRE101	HIS103
ECN212	HIS104
ENG101	PSY101
ENG102	SOC212

**Reading: Course-Level Data  
Plan-Do-Check-Act (PDCA) Cycles**

The Reading course-level Student Learning Outcome was on hiatus during FY12-13. This decision was made because the objectives of the Reading curriculum were being revised. Because the nature of the reading objectives was shifting at the district level, and because the new competencies marked a steepening difficulty level for the classes, it seemed best to observe the trends in the courses in order to craft a more effective reading rubric and design a more meaningful learning outcome.

**Sustainability  
Plan-Do-Check-Act (PDCA) Cycles**

Sustainability was adopted by the Faculty Chairs as a College-wide learning outcome in spring 2012. Faculty Chairs continued and completed their focus on integrating Sustainability-focused assignments and implementation of the Sustainability rubric at the course level. All cycle progress is recorded on Rio Salado’s Student Learning Outcomes SharePoint Site. Table XII shows cycle progress for the following courses: ARH101, ASB102, CHM107, CIS105, CPD102AB, ELN101, ENG101, PHI216, and REC150.



<b>Table XII</b>	
<b>Sustainability Cycle Progress for FY2012-13</b>	
<b>Sustainability</b>	<b>N</b>
Courses that have improvement cycles	9
PDCA cycles completed	9
PDCA cycles ended	9
PDCA cycles in progress	0
Courses involved	9
Students impacted during PDCA cycle	1124

After the completion of each cycle, it was found that approximately 85% of students impacted met or exceeded the College level for the Sustainability assignment. Assignments used during the PDCA cycle were then integrated as sustainability-focused assignments throughout these courses. The high rate of student success on Sustainability assessments conveys a preliminary understanding of the topic.

In light of these data, the Learning Assessment Team has concluded that Sustainability, although a focus and core value of the College, is not best measured by specific course-level assignments. Accordingly, the PDCA cycle will no longer be used to measure Sustainability as a learning outcome. Instead, the goal will be to continue to work with Faculty Chairs across all disciplines to infuse Sustainability into courses across the curriculum, via the continuing integration of Sustainability-focused assignments.

## Program Review

Program Review at Rio Salado College is a systematic and comprehensive process, which is both sustainable and formal. At Rio Salado, a program is defined as *a set of college-level courses resulting in a certificate or degree*, and includes both occupational and academic programs. The types of certificates and degrees reviewed include an Associate in Applied Science, an Associate in Arts, a Certificate of Completion, and an Academic Certificate. Programs may include sets of courses that are reviewed by an outside or external accrediting body, such as the American Dental Association, or may include a set of college-level courses which results in a certificate awarded through outside agencies, such as the Arizona Department of Education (ADE). In addition, the courses required for program completion are open to the general public. (Cited from Rio Salado College's *Program Review Model/Process*)

Rio Salado's Program Review process contains a multi-level view of the program, which includes a comprehensive assessment of the College-level, program-level and course-level student learning outcomes. Data on the outcomes of both curricular and co-curricular services, such as

the Library, Advising, Financial Aid, the Helpdesks, etc., are included in each program review. In addition, every Program Review contains the same foundational components, i.e. program goals, learning outcomes, and program resources, which are addressed by utilizing a 36 foundational questions template and the data sets. Once the review is complete and final report is written, members of the College's Learning Assessment Team examine the Program Review and provide feedback on best practices, quality assurance, and areas to improve, relentless improvement.

A review of the Dental Hygiene program was conducted during fiscal year 2012-13. In addition, the Program Review report for the Computer Technology program was finalized and is currently undergoing an extensive examination and review process. Executive Summaries for both Program Reviews will be available on the College's website in fall 2013.

## **RioLogs**

Rio Learning Outcomes Grants (RioLogs) provide a mechanism and the resources to support Faculty Chairs in developing student learning outcomes-based initiatives, directly linked to assessment results data. The instructional initiatives or projects proposed for RioLog funding require the involvement of adjunct faculty members. Two RioLogs were completed during FY2012-13:

### **Languages Department**

#### **Visual GEAR: Using video to provide Guided Evaluation for Assessment Review in Sign Language Courses**

This RioLog secured funding to pay six adjunct instructors to create video clips that demonstrate common grammar structures in American Sign Language. Eighty clips were produced that can be used across class sections and levels to standardize feedback in the Sign Language curriculum. The video clips are posted on the Rio Salado Open Educational Resources site, RioCommons, at <http://www.riocommons.org/>

The GEAR videos were produced during the fall of 2012, and were uploaded to RioCommons prior to the start of the spring 2013 semester. For FY 2012-13, over 200 Rio Sign Language students were impacted by the deployment of this intervention. Additionally, GEAR videos are available as open source content to external audiences such as teachers, students, and others interested in American Sign Language.

**Library Department**  
**Coding Rio Salado Virtual Reference Transcripts for Instructional Strategies II**

This spring 2013 RioLog project was designed to determine the instructional strategies used by librarians to teach Rio Salado students about library concepts, resources, and processes via the online *Ask a Librarian* chat service. The project was based on research in the library literature which identified eight instructional strategies that librarians can apply in virtual reference transactions to increase student learning. These eight strategies are grounded in three educational theories: metacognition, active learning, and social constructivism. This RioLog project explored which instructional strategies were most frequently employed by librarians, and how many sessions employed multiple instructional strategies. It also attempted to correlate specific strategies to Rio Salado students' perceptions of learning. Karen Docherty, Rio Salado library faculty and the Coordinator of the MCCCDC *Ask a Librarian* reference chat service, conducted the study, and two adjunct faculty librarians were contracted to analyze chat transcripts to code the strategies used. Data indicated that further training in the use of instructional strategies in virtual reference work should be carried out, and should more sharply focus on desired librarian behaviors. For more details or to view the full report, contact [karen.docherty@riosalado.edu](mailto:karen.docherty@riosalado.edu)

**Significant Accomplishments in Assessment of Student Learning**

- In August 2012, Rio Salado received the final report from the Visiting Team of the Higher Learning Commission of the North Central Association, reaffirming the College's accreditation status for a further 10-year period. The Team stated: "Rio has a long-term commitment to continuous improvement using the Plan-Do-Check-Act (PDCA) cycle of improvement that was recently intensified and renamed "Relentless Improvement." Extensive training in continuous improvement methodologies is provided for all faculty and staff. The comprehensive assessment plan includes teaching and learning as well as all other areas of the college that support instruction.
- In November 2012 Rio Salado received confirmation of being placed on the Open Pathway for the revised HLC accreditation process.
- The National Institute for Learning Outcomes Assessment (NILOA) chose Rio Salado College's Assessment of Student Learning website (<http://www.riosalado.edu/about/teaching-learning/assessment/Pages/SLO.aspx>) to be featured as a part of their "service intended to point others to promising practices in innovative and transparent online communication of student learning outcomes

assessment.” NILOA stated that “Rio Salado College is highlighted for communicating its well-crafted Assessment Plans, explaining its assessment work to faculty and others who visit its website, and interpreting evidence of student learning in alignment with its mission.” (<http://www.learningoutcomesassessment.org/FeaturedWebsitePast.html>)

- Rio Salado secured NGLC Wave IIIb grant funding to implement further College-wide interventions to increase and measure student learning outcomes.
- Program Reviews were completed for:
  - Computer Technology
  - Dental Hygiene
- The 14th Annual Fall Assessment and Learning Experience was held on September 13<sup>th</sup> and 15<sup>th</sup>, 2012, with 600 adjunct faculty members attending.
- Six Outstanding Adjunct Faculty were recognized for Contributions to Assessment of Student Learning for the 2011-12 fiscal year. The Outstanding Adjunct Faculty Reception was held on August 29<sup>th</sup>, 2012.
- The ETS Proficiency Profile was administered in spring, 2013.
- Dr. Angela Felix and Dr. Jennifer Shantz presented "Program Review: A Comprehensive and Sustainable Framework of Assessment" in February, 2013 at the first Community College Conference on Learning Assessment in Orlando, Florida.
- A Rio team attended the annual HLC Conference in Chicago in April, 2013.
- Dr. Jennifer Shantz and Hazel Davis participated by invitation in the Self-Study Fair at the HLC Conference for institutions which had recently completed accreditation team visits.
- Faculty Chairs continued working on deploying the course-level Plan-Do-Check-Act (PDCA) matrix for the College-wide student learning outcomes of Critical Thinking, Writing, Information Literacy, and Sustainability.
- A total of 158 adjunct faculty have successfully completed the AFD (Adjunct Faculty Development) workshops AFD225, AFD227, AFD229, and AFD230 since their inception. These workshops address the College-wide student learning outcomes of Critical Thinking, Information Literacy, Sustainability, and Writing.
- The Learning Assessment Report was compiled and posted to the Learning Assessment SharePoint and Adjunct Faculty SharePoint sites for access by residential faculty, adjunct faculty, and College employees.
- The Learning Assessment Report will be distributed to all adjunct faculty during the September, 2013 Fall All Faculty Assessment and Learning Experience, and posted to the College’s Public Website.

## **Learning Assessment Team Members**

Dr. Dana Offerman, Vice President, Academic Affairs

Dr. Jennifer Freed, Dean of Instruction and Academic Affairs, Critical Thinking Outcome Coordinator, Accreditation Co-Coordinator

Hazel Davis, Faculty Chair, Assessment Co-Coordinator, Information Literacy Outcome Coordinator, Accreditation Co-Coordinator

Dr. Jennifer Shantz, Faculty Chair, Assessment Co-Coordinator, Program Review Coordinator

Dr. Kathleen Dunley, Faculty Chair, Writing Outcome Coordinator, Reading Outcome Coordinator

Dr. Shannon Corona, Faculty Chair, Sustainability Outcome Coordinator

Dr. Angela Felix, Faculty Chair, Critical Thinking Outcome Coordinator

Daniel Huston, Interim Director, Institutional Effectiveness