

Appendix IV

OEAE's full report - Monitoring Report to MSCHE
(April 2012)

Standard 12 General Education

Steps taken to strengthen general education and implementation of a documented assessment process for oral communication, written communication, scientific reasoning, quantitative reasoning, and critical analysis and reasoning.

1. Introduction

The Commission's request to document evidence of steps taken to strengthen general education has been interpreted by the Institution to apply both at the program level (discipline specific) and in the general-education component, thus emphasizing the campus commitment to develop Gen Ed competencies across the curriculum.

A common set of intended learning outcomes for all undergraduate students is the framework for the assessment of student learning in general education at UPR-RP. This includes general education competencies such as written and oral communication in Spanish and English, critical thinking, quantitative reasoning, scientific reasoning and research, social responsibility, and information competencies. (*Student Profile See [Appendix 16](#) – Academic Senate Certification 46 2005-2006*) This set of competencies is learned and applied in General Education (Gen Ed hereafter) courses as well as in discipline-specific programs. The competencies stem from a specific definition of general education¹ and a recently revised structure for the bachelor's degree. They are listed in The Campus Learning-Assessment Plan (2006). (*Student Profile See [Appendix 16](#) – Academic Senate Certification 46 2005-2006*). The assessment system is therefore based on:

- a. the mission of the Institution;
- b. the Bachelor's degree structure and philosophy;
- c. the mission, goals and requirements of the academic programs;
- d. the student competencies profile definition.

Such foundations provide a pathway to strengthening general education through the following characteristics:

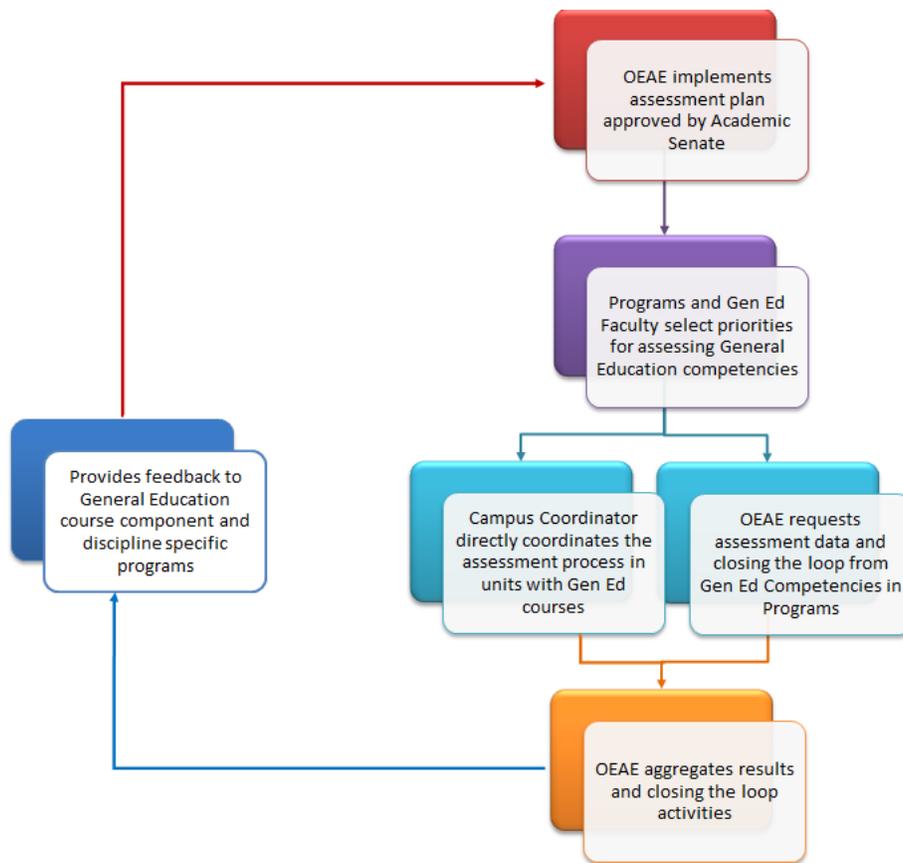
- a. A complete process – First of all, program assessment plans are the result of the development of learning objectives, the identification of those courses in which the student engages in learning the competency, followed by the gathering of assessment data; second, the assessment data are analyzed; third, the transformative actions are identified; and fourth, the transformative actions are implemented; this phase is known as closing the loop and reassessment.

¹ Certification 46 (2006) established a shared responsibility for the general education component. A 30 credit Gen Ed core is offered by the College of General Studies' six departments: English, Spanish, Humanities, Social Science, Physical Science and Biological Science. The College of Humanities offers general education courses in Literature and Art; the Colleges of Natural Sciences, Business and Social Science offer quantitative reasoning courses; the School of Architecture offers Gen Ed courses in Art. The revised Gen Ed component consists of 42 credits.

- b. Institutionalization and assessment culture - The Campus created the Office of Evaluation of Student Learning (OEAE for its Spanish acronym) to guide undergraduate program-level assessment, which includes general education competencies from the perspective of the disciplines, and to enhance the assessment culture. Gen Ed competencies are assessed within the discipline and in the general-education required courses. This two-prong approach reinforces the learning and application of Gen Ed competencies throughout the curricular sequence.

The institutional process and structure for assessment of student learning is depicted in Diagram 2. It shows the responsible entities, the assessment process for Gen Ed competencies, and the closing-the-loop stage.

Diagram 2. Integrated Framework for Student Learning Assessment at the UPR-RP Campus

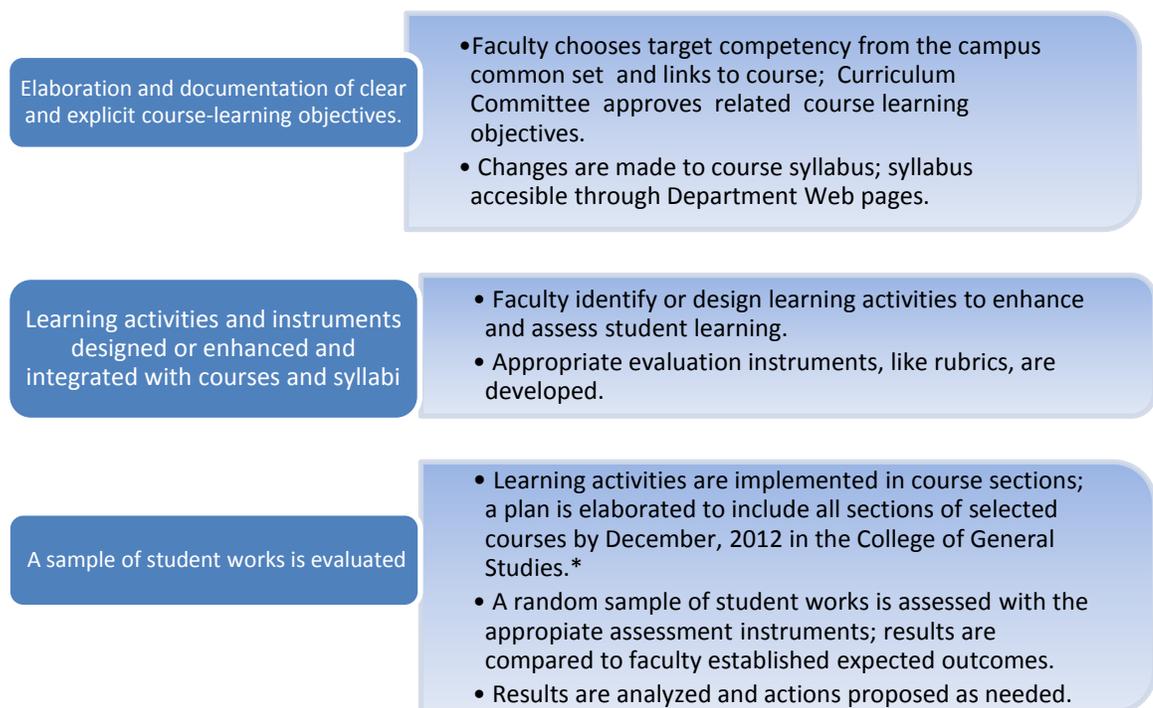


2. Strengthening General Education through assessment in Gen Ed courses

The Río Piedras Campus’s academic leadership has taken very specific steps to ensure an articulated and systematic process for assessment of General Education competencies. These steps have resulted in the strengthening of General Education competencies not only in the Gen Ed College, but across all programs on the campus. The steps include:

- a. naming of campus coordinator - The appointment of a campus coordinator to articulate the process across the Gen Ed component in the College of General Studies, in the College of Humanities, and institutionally across colleges and schools has rendered magnificent results.
- b. development of structure and process - A faculty led, articulated process in general-education courses with clear and documented learning objectives, enhanced educational activities, and appropriate measures and assessment instruments has been developed as the basis for ongoing learning assessment. Diagram 3 outlines a coherent and ongoing Gen Ed course-embedded assessment for target competencies that are linked to campus-wide common learning objectives.

Diagram 3. General Education Course-Embedded Assessment



- c. Course-embedded assessment- This is the key for strengthening programs. The dynamic of course-embedded assessment promotes reflection at the micro level. Professors are empowered to make changes and participate in course improvement with a process they can impact directly.
- d. Required participation of all components - During 2011, 100% of the departments in the College of General Studies participated in documenting clear course goals and student learning objectives for a selected competency and established the foundations for a systematic and ongoing learning-assessment process.
- e. Ongoing assessment-education - A significant amount of time and effort has been devoted to workshops on assessment. Abundant and on-demand one-to-one guidance by the OEAE personnel on how to develop learning objectives, how to

design scoring instruments, such as rubrics, and how to align objectives to course educational strategies has been available. See [Appendix 17](#) – Assessment Workshop for a summary of these activities, including a one-day workshop sponsored by the DAA, offered by Dr. Virginia Anderson of Towson University in September, 2011, and continuous activities offered by the Center for Academic Excellence (CEA), the OEAE, the Library System, and the Libraries of Architecture, Natural Science, Business, and General Studies.

- f. **Emphasis and Prioritization** – The prioritization scheme is structured in cycles. Although assessment is carried out for all competencies, emphasis in particular ones is assigned by cycles. This way the impact of the effort is more widely spread and the participation of a critical mass of professors is made possible. This approach also promotes a synergistic allocation of resources for assessment. For example, in one cycle, the top priority has been assigned to the development and assessment of information competencies from the beginning of a student’s experience in the freshman year, across colleges and schools, as the base for further developing and strengthening the academic programs. The courses selected to integrate information competency experiences are:
- general education courses for first-year students in the College of General Studies, Honors Spanish, Humanities, Physical Science, Biological Science, and Intermediate English with Technology;²
 - first-year courses in Management and Accounting in the College of Business Administration (ADMI 4005, CONT 3106);
 - a first-year course in Art in the School of Architecture (Gen Ed course ARQ 3121);
 - first year courses in Chemistry (QUIM 3001) and Biology (BIOL 3102) in the College of Natural Sciences.

3. Status, Results and Outcomes – Gen Ed courses³

The implementation of the Campus assessment process in Gen Ed courses has rendered the following important systemic outcomes:

- a. **Documentation of the process** - By being able to access approved syllabi that have been placed on departmental Web pages, faculty and students learn what is expected, contributing to the standard implementation of the curricular plan.
- b. **A common metric** - A common scoring instrument has been created in 83% of the cases.

² The 2011 process expanded the pilot project already established with the Library System and the College of General Studies in 2009-2010. A faculty committee with participation of the Library System and the General Studies Library directors was created to advance integration of information competencies (PICIC) in 2009. Model activities and interdepartmental discussions were generated. The expanded institutional project in 2011 has as its goal to engage newly admitted students in the 2011 cohort and cohorts hereafter in information competencies.

³ Six departments in the College of General Studies offer core general-education courses. Departments selected a competency to assess: The Departments of English and Spanish selected communications, Biological Science and Physical Science chose scientific reasoning and research skills, Humanities selected critical thinking, and Social Science chose social responsibility. This approach will be followed in the second semester in other Gen Ed courses.

- c. A sense of community - Curriculum committees have engaged in a curricular-management process that enhances their educational strategies and fosters student learning, as much as it creates a sense of community among faculty.
- d. Closing the loop for transformation - Transforming actions are detailed in [Appendix 18](#) – Assessment implementation and transforming actions by department. The diversity among academic disciplines in the College generates a variety of instructional approaches and activities that enrich students’ experiences.
- e. Institutionalization – A five-year cycle and calendar for the Gen Ed competencies has been recommended in order to continue the process in future years. See [Appendix 19](#) – Status implementation course embedded assessment General Education courses College of General Studies for the Status of Implementation of Course-embedded Assessment in Gen ED Courses.

Table 4 presents results for the assessment of student learning of Gen Ed courses in this cycle.

Table 4 - Student Learning Achievements as Directly Assessed Using a Common Rubric/Content Area College of General Studies

| Competency | Met Expected Outcome (for a given criteria, at least 70% of students obtained satisfactory or better on a common rubric) | Not Met Expected Outcome (for a given criteria, less than 70% of students obtained satisfactory or better) | Number of Sections and Students assessed in Pilot |
|--|--|---|---|
| 1.Scientific Reasoning and Research – Biological Science Department (CIBI) | Post test Second Cycle (December 2011) % met expected outcome in each of the criteria: Observation (71.8%), Data gathering (93.2%) | Criteria: Problem Statement (55.4%), Data Analysis (66.5%), Formulate Hypothesis (69.3%), Conclusion (50.8%). | 11 sections 177 students |
| 2.Scientific Reasoning and Research – Physical Science Department pilot project (CIFI) | % met expected outcome in criteria: Problem Statement (75%), Data gathering (77%), Writing skills(84%) (post test). | Criteria: Formulating Hypothesis (67%) , Conclusion(60%) and Data Analysis(44%) | 4 sections 59 students |
| 3. Written communication English Department–pilot project | ENGL (3101-02) More than 75% of students met each of these criteria: Content, Organization, and Mechanics. | Criteria: Vocabulary (45%) and Grammar (42%) | 4 sections (36%) 61 students |

| Competency | Met Expected Outcome (for a given criteria, at least 70% of students obtained satisfactory or better on a common rubric) | Not Met Expected Outcome (for a given criteria, less than 70% of students obtained satisfactory or better) | Number of Sections and Students assessed in Pilot |
|------------|---|--|---|
| | <p>CIFI 3037</p> <p>Met each of the criteria: Need for information (100%), Identify a variety of sources (82.4%), Summarize main ideas (94.1%)</p> | <p>Criteria: Search strategies (64.7%), Evaluation of information criteria (47.1%), Ethical and legal aspects (29.4%)</p> | <p>1 sections, 17 students</p> |
| | <p>ENGL 3123 % met each of the criteria: Need for information (92%), Variety of formats and types of information (85%), and Search strategies(77%).</p> | <p>Criteria: Summarizes main ideas (63%), Evaluation of Information and Sources (48%), Ethical use of information (52%).</p> | <p>4 sections 48 students</p> |

4. Status, Results and Outcomes – Gen Ed competencies at the institutional level (across Colleges and Schools)

Gen Ed competencies are also measured across colleges and Schools. The examples of assessment results presented below show the efforts that the different Colleges are making in order to insure that students are developing these competencies, and also show the strengthening of Gen Ed competencies across their curriculum. Table 5 presents a summary of the assessment efforts the in the undergraduate programs.

a. Information Competencies in other Freshman Courses

In order to advance the goal of engaging newly admitted students (freshmen) with information competencies starting with their first year on Campus, freshman courses in the Colleges of Natural Sciences and Business Administration and in the School of Architecture have been selected in a joint project with the libraries to integrate information competencies. Table 5 presents an overall summary based on *the number of freshman students enrolled (out of 1745 students in the 2011 cohort) that experienced a focus on information competencies in at least one course*. Table 5 accounts for freshman students across the selected courses in the College of General Studies, and in first year courses in the Colleges of Natural Sciences and Business Administration and the School of Architecture. In summary, at least 64%⁵ (1120 of 1745) benefitted from information-competency experiences during the first

⁵ Percentages are based on counts of students only in the selected courses.

semester of 2011-2012, thereby advancing the goal of impacting the 2011 cohort during their first year. Follow up will continue during second semester to guarantee extension to most freshman students, for this is a high-priority common goal for the Campus.

Table 5. Freshman Students (2011-2012 Cohort) Experiencing Information-Competency Educational Activities in their First Semester Across Colleges and Schools

| Student Classification | Head count - 2011 cohort |
|-------------------------------|---------------------------------|
| Natural Science | 479 |
| Business | 210 |
| Social Science | 115 |
| Education | 89 |
| Humanities | 81 |
| Communications | 42 |
| General Studies | 46 |
| Architecture | 42 |
| Other programs* | 16 |
| Total | 1120 |

*Include Nursing and Engineering Transfer Students, PEACE.

In addition, analysis of the data showed that approximately 55% of these students applied information competencies in one first-year course, while 45% are already applying these competencies in two or more courses.

See in [Appendix 21](#) – Assessment in freshmen courses info competencies libraries, for details by Unit on information competencies integrated into freshman courses, results, and various transforming actions in the Colleges of Natural Sciences and Business Administration and in the School of Architecture.

b. Quantitative Reasoning (Logical-Mathematical)

A committee composed of faculty members from different colleges, which included Natural Sciences, Education, Business Administration, General Studies, and Social Sciences, collaborated in designing a test to measure students’ logical-mathematical reasoning skills (See [Appendix 22](#) – UPR RP Logical-Mathematical reasoning definition and objectives). The test was drafted according to a test specification table with test items aligned to learning objectives. A pilot version of the Campus General Logical-Mathematical Reasoning Test (CG-LMRT,

hereafter) was administered on December 2010; a revised version was administered during the week of May 16 to 21, 2011, to all 34 sections (521 students) of Mathematics courses that comply with the general-education requirement, with the exception of Business-School and College-of-Natural-Sciences students. Since 16% of the students achieved the expected performance level, findings were discussed with the Department of Mathematics Chairperson and with faculty members in a departmental meeting. As part of closing the loop, agreements were reached to implement a series of out-of-class tutoring sessions as support for the learning process. Also, during the second semester of 2011-2012, course modifications and tutor training will be addressed. (See [Appendix 44](#) – Quantitative reasoning findings and actions)

With respect to quantitative reasoning in Business Administration, a different test was designed to measure logical-mathematical reasoning skills, which was administered to students who take the Pre-Calculus course (Quantitative Methods). Faculty members who teach the course prepared the test. Test results are comparable to the ones observed in the CG-LMRT administration. A revised version of the CBA-LMRT was approved and administered as a Departmental final examination in all course sections⁶, allowing the use of calculators, as is permitted in classes. This time, students achieved the expected outcome proposed by the quantitative methods faculty. Although these findings significantly surpass previous semester results, the CBA-LMRT will be administered again in May 2012 in order to compare results under similar administration conditions (i.e., as a final departmental exam in which the use of calculators is permitted). Quantitative reasoning in the College of Natural Sciences will be evaluated using a different approach. Specially designed test items in partial and final examinations of the Calculus-requirement course will be used to assess this learning outcome during the second semester of 2011-2012.

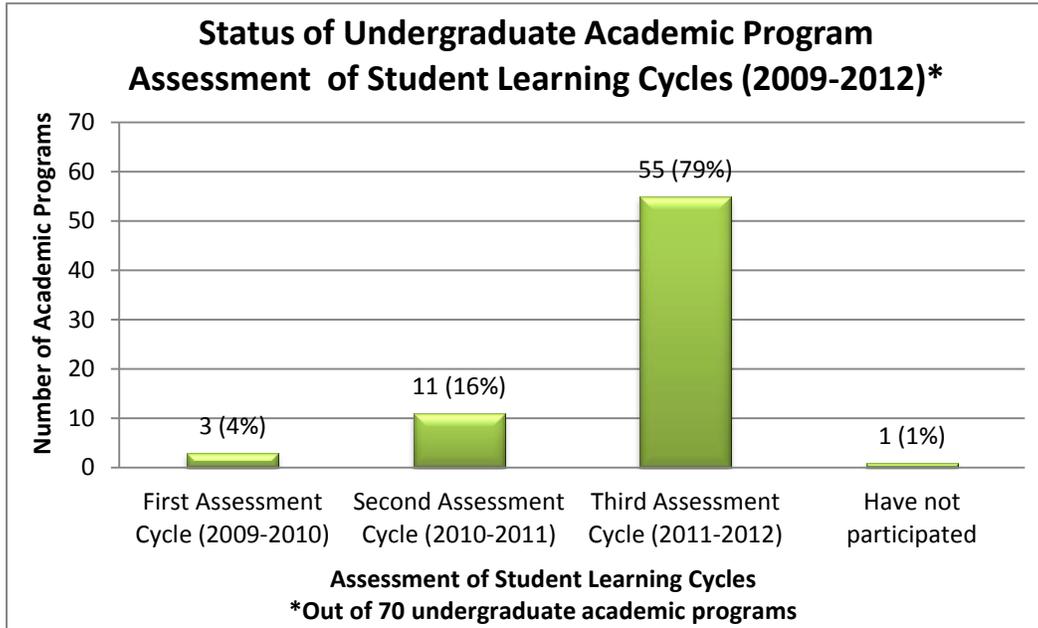
5. Assessment of Student Learning in Gen Ed Competencies in Undergraduate Academic Programs

a. Introduction

Program participation in assessment has grown tenfold in 3 years. As of February 2012, 79% of the undergraduate academic programs are undergoing their third assessment cycle and 16% of them are in their second cycle as shown in Graph 1. All academic programs have appointed Assessment Coordinators to be in charge of developing and coordinating assessment efforts. Some Colleges have appointed Coordinators to overview the assessment process in their academic programs.

⁶ As discussed in assessment literature (Banta & Palomba, 1999; Suskie, 2009; Walvoord & Anderson, 2010), students perform better on course-embedded assignments, especially when they count towards their grade.

Graph 1: Undergraduate Academic Program Assessment Cycles



The number of Gen Ed competencies assessed was increased, thereby increasing the participation of faculty in the process. All the activities, as well as undergraduate academic-program plans, annual reports, curricular matrices, five-year plans, and other relevant information regarding the process of undergraduate assessment of student learning on Campus, including assessment of Gen Ed competencies, are shared with faculty and students through the OEAE's blog (<http://oeaeuprrp.blogspot.com/>). During this period, 2010-2011, emphasis was given to a data-driven decision-making process that stressed the following needs:

- a. to submit quality-assessment documents – Assessment of Student Learning Plan, Annual Report, Curricular Matrix, and Five-Year Plan (See [Appendix 23](#) – Assessment of student learning documents undergraduate academic programs);
- b. to revise the Five-Year Plan and Curricular Matrix in light of previous assessment results, if needed;
- c. to implement and assess transforming actions that resulted from the previous year's assessment process in each academic program, to ensure improvement of student learning;
- d. to promote an increase in participation from all stakeholders;
- e. to use multiple measures to assess one learning outcome and measure it in more than one instance;
- f. to assist Assessment Coordinators, professors and teaching assistants in developing adequate assessment instruments.

Strengthening general education at the University of Puerto Rico is the result of a systematic, well thought-out planning process, implemented in a comprehensive manner.

b. Direct evidence of how the UPR-RP Campus is strengthening development and assessment of competencies at the program level and the assessment culture on the campus

Table 6 summarizes the learning outcomes assessed related to Gen Ed competencies, the number of academic programs that assessed a learning outcome, the percentage of learning objectives met and samples of proposed transforming actions. A detailed description of assessment results and transforming actions by academic programs and learning outcomes are presented in [Appendix 20](#) – Table assessment findings and transforming actions colleges and academic programs 10 2011.

As it can be observed on Table 6, a high percentage of learning objectives were met during the 2010-2011 academic year, with the exception of social responsibility. Also, for most competencies, the majority of academic programs used multiple measures to assess a learning outcome, especially when compared to their previous findings. (See [Appendix 56](#) – Table of assessment findings and transforming actions by colleges and academic programs 08 10). The number of programs assessing research, creation and information literacy is lower compared to other competencies. However, the number of programs that are planning to assess these learning outcomes will increased significantly in the third assessment cycle.

Table 6. Summary of Assessment Results by Gen Ed Competency: Undergraduate Academic Programs

| Learning outcome assessed | Number of Academic Programs that assessed this learning outcome | Percentage of learning objectives met ⁷ | Number and percentage of programs that used multiple measures to assess a learning outcome | Samples of proposed transforming actions |
|---------------------------|---|--|--|--|
| Effective Communication | 50 | 86% | 39 (78%) | Increase the number of written reports assigned; revise course content and syllabi; writing should be highlighted in all |
| Critical Thinking | 49 | 72% | 29 (59%) | |
| Research and Creation | 23 | 79% | 6 (26%) | |

⁷ This percentage equals the number of learning objectives met divided by the number of learning objectives measured as gathered from the Table of Assessment Findings and Transforming Actions by Colleges and Academic Programs (Academic Year 2010-2011). A learning objective was considered to be met if the expected performance level was achieved in more than half of the criteria assessed. Although each academic program establishes their own expected outcome, most of them select a minimum performance level of 70% or higher for each learning outcome assessed.

| Learning outcome assessed | Number of Academic Programs that assessed this learning outcome | Percentage of learning objectives met ⁷ | Number and percentage of programs that used multiple measures to assess a learning outcome | Samples of proposed transforming actions |
|--|---|--|--|--|
| Social Responsibility | 46 | 68% | 28 (61%) | assignments and exams; develop rubrics and make them available to students prior to course assignments; increase the number of class exercises regarding critical analysis of a text; increase the number of research activities in courses. |
| Information Literacy | 31 | 83% | 3 (10%) | |
| Content Knowledge, Skills, and Dispositions in the Academic Programs | 51 | 76% | 48 (94%) | |

Table 7 - Examples of Improvement in Institutional Intended Student Learning Outcomes related to Assessment Results regarding Competencies in Undergraduate Academic Programs

| Learning Outcome Assessed | Course | % students that met the expected outcome in the first or second semester 2009-2010 | % students that met the expected outcome in the first semester 2010-2011 | % students that met the expected outcome in the second semester 2010-2011 |
|---|-----------|--|--|---|
| Research skills - Biology ⁸ | BIOL 3101 | 51 % | 77.5% in the first semester, first instance | 93.9 % in the second semester, first instance |
| | BIOL 3350 | 79 % | 92.9 % in the first semester second Instance | 99 % in the second semester, second instance. |
| Written communication skills - Biology | BIOL 3101 | 42 % | 75.3 % | 82.7 % in the first instance and 95.9 % in the second instance. |
| Critical thinking skills - Geography ⁹ | GEOG 4550 | 89 % | 90 % | 91.5 % |

⁸ To confirm these findings, the program proposed that data gathered from the following year's results be compared in order to determine if findings are due to raters' subjectivity when applying the rubric or to curricular changes that could have a positive effect on student learning outcomes.

⁹ This program reports that the observed increase in the assessment results could be due to the implementation of transforming actions, resulting from assessment efforts carried out last year, such as the increase in the number and type of written assignments that students need to submit for this course.

| Learning Outcome Assessed | Course | % students that met the expected outcome in the first or second semester 2009-2010 | % students that met the expected outcome in the first semester 2010-2011 | % students that met the expected outcome in the second semester 2010-2011 |
|--|-----------|--|--|---|
| Critical thinking skills - Political Science | CIPO 3035 | 67.3 % | 81.6 % | Not measured |
| Oral communication skills – Art History | ARTE 4242 | 51 % | 89 % | Not measured |

The results presented in Tables 6 and 7 are direct evidence of how the UPR-RP Campus is strengthening development and assessment of competencies at the program level and consequently the assessment culture on Campus.

Additional learning outcomes can be found in the Table of Assessment Findings and Transforming Actions by Colleges and Academic Programs (See [Appendix 20](#) – Table assessment findings and transforming actions colleges and academic programs 10 2011). Most of the programs proposed transforming actions, when needed. Besides the ones presented in Table 6, other samples of transforming actions proposed by academic programs related to Gen Ed competencies are the following:

- *Business administration* – Communities of practice for learning goals have been created to carry out the closing-the-loop stage of assessment. Some of the actions proposed include a curriculum review as well as student learning experiences, where needed. Some courses started using laboratories and mentorships to support student learning.
- *Interdisciplinary Program in Natural Sciences* – An Introduction to Research course for junior students will be developed to prepare students for the capstone experience as well as to improve their research skills.
- *Information and Journalism* – There is a plan to develop a supplementary writing laboratory course to strengthen journalistic writing style.
- *Political Science* – It has been suggested that academic counseling should be continuously carried out in order for students to understand the importance of enrolling in core courses in a sequential order to develop essential skills that are relevant and useful for advanced courses.
- *Performing Arts* – There are plans to promote the relevance of teamwork to excellent theatrical performance.
- *History of the Americas and Europe* – Several writing and style workshops will be offered to students that demonstrate deficiencies when developing a critical essay.

Additional transforming actions proposed by academic programs are available in the Table of Assessment Findings and Transforming Actions by Colleges and Academic Programs (See [Appendix 20](#) – Table assessment findings and transforming actions colleges and academic programs 10 2011).

c. Highlights of improvement

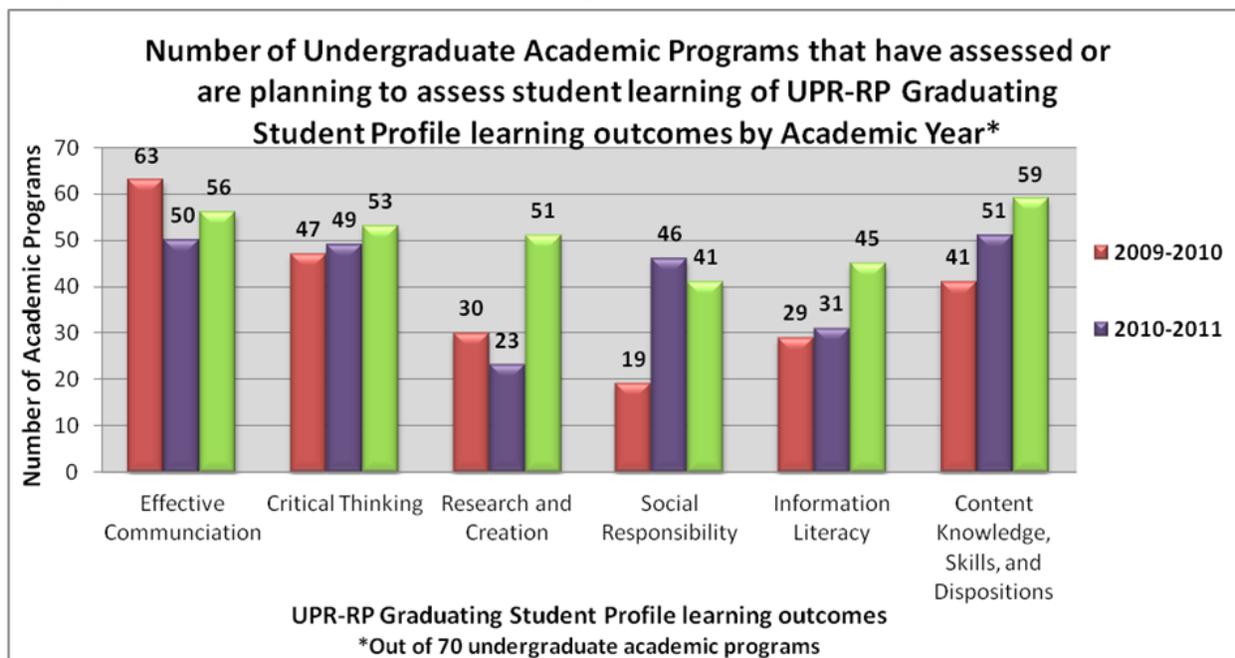
The ongoing Campus commitment to the assessment process is evidenced through the following actions:

- College Assessment Coordinators have been appointed.
- Budget resources have been allocated for assessment activities, such as released time or compensations for Program Assessment Coordinators.
- Faculty participation in the assessment process has increased.
- Associate Deans of Academic Affairs and Department Chairpersons are constantly engaged in student-assessment discussions and activities, supporting the assessment of the student learning process in their programs.
- A higher commitment among faculty members is evidenced by the number of multiple measures used, and in the increase in instances in which a learning outcome was measured.
- An increase in dissemination of assessment results in forums such as faculty meetings, departmental websites and workshops has been noted.

d. Academic year 2011-2012 (Third Assessment Cycle)

As of October, 2012, 61 out of 70 (87%) undergraduate academic programs submitted their Assessment-of-Student-Learning Plans for the 2011-2012 academic years. As of February 2012, 44 programs (63%) advanced their assessment findings for the first semester, which are in the process of been analyzed. Undergraduate academic programs must submit an annual report by June 29, 2012, indicating their findings and presenting their proposed transforming actions. Graph 2 presents the number of programs that assessed the main-campus Gen Ed learning outcomes in the last two assessment cycles (2009-2010, 2010-2011) and are planning to assess them in the current one (2011-2012).

Graph 2: Assessment of Student Learning Outcomes by Academic Year



e. Prospective Assessment Plans - at the program level

- Academic programs will review this year's (2011-2012) Assessment of Student Learning Plan, the Five-Year Assessment Plan, and the Curricular Matrix, according to the assessment experiences of these last three years.
- Academic programs will implement transforming actions resulting from this year's assessment processes (2011-2012) in next year's (2012-2013) assessment plans.
- Academic programs will strengthen the assessment of students' social responsibility, and information literacy skills.
- A Best-Assessment-Practices Forum will be organized and presented to the academic community in a campus activity.
- A web-based assessment tool will be designed to facilitate gathering and analyzing assessment data.
- A committee will be named to design and administer a written-communication test to a sample of sections of senior students as well as to incoming students in August 2012.

This report evidences that the process of assessment of student learning is ongoing and systematically carried out in the Undergraduate Academic Programs and at the Institutional Level for general-education competencies. Moreover, the foundations for an ongoing assessment of learning in the general-education component are in place.

The goal has been set to impact all newly admitted students in their freshman year with the systematic development of major general-education competencies, particularly

information literacy, critical thinking, oral and written communication, scientific reasoning, research skills, and social responsibility. This approach emphasizes Campus commitment to developing and assessing these competencies in an integrated manner across the entire undergraduate experience, and to instill selected educational values from the beginning of students' experiences on campus. Documentation of the process is being accomplished through various means, such as departmental web pages, assessment instruments approved by faculty, and official assessment reports which are distributed and discussed. (See [Appendix 18](#) – Assessment implementation and transforming actions by department).

Evaluation, modification, and extension of the general-education-component pilot projects are being carried out during the second semester of 2011-2012 for further development in the next academic year to cover all sections of selected courses. Analysis of learning results will guide processes and course modifications in order to reach all students through their general-education experience, and once projects are fully developed by December, 2013, assessment will be implemented in 5 year cycles.

Faculty participation has been active and supportive, a major ingredient for establishing a systematic assessment process.

Once the academic programs submit their Assessment-of-Student-Learning Annual Reports by the end of June 2012, the corresponding analysis of all the assessment results and transforming actions will take place during the first semester of the 2012-2013 academic year to insure that all academic programs close their assessment loops and begin another assessment cycle.

Standard 14 Assessment of Student Learning

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| Development and implementation of an organized and sustained assessment process to evaluate and improve student learning in all the graduate programs, including evidence of the use of appropriate direct and indirect methods of assessment |
|---|

The Office of the Dean of Graduate Studies and Research (DEGI) is in charge of the assessment of student learning at the graduate level. The Río Piedras Campus has a total of 39 graduate programs, of which fourteen are subject to accreditation by professional accreditation boards, 35 are not, and all programs are at different stages in terms of the assessment of student learning. Diagram 4 shows the different levels of support provided by the DEGI to assist graduate programs in the assessment of student learning.