## Assessment Overview

**Discipline/Program Name:** Psychology  
**Assessment Year:** 2008 - 2009

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Outcome Type</th>
<th>Methodology</th>
<th>n</th>
<th>History</th>
<th>Benchmark</th>
<th>Results</th>
<th>Strength of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research Methodology</td>
<td>Discipline</td>
<td>Pre-Post Test</td>
<td>105</td>
<td>7 Years</td>
<td>Statistically Significant Improvement</td>
<td>Significant Improvement p &lt; .05</td>
<td>Strong</td>
</tr>
<tr>
<td>2. Critical Thinking</td>
<td>GE</td>
<td>Pre-Post Test</td>
<td>105</td>
<td>6 Years</td>
<td>Statistically Significant Improvement</td>
<td>Significant Improvement p &lt; .01</td>
<td>Strong</td>
</tr>
<tr>
<td>3. Technology</td>
<td>GE</td>
<td>Pre-Post Test</td>
<td>105</td>
<td>1 Year</td>
<td>Statistically Significant Improvement</td>
<td>Significant Improvement p &lt; .01</td>
<td>Strong</td>
</tr>
</tbody>
</table>
| 4. Student Success and Persistence | Other | Analysis of Institutional Data | 1349 | 1 Year | | Success: 70%  
Persistence: 85% | Success and Persistence Surpassed Benchmarks | Neutral |

### Describing the Learning Outcome That You Have Measured

| Outcome Type | Methodology | Measurement Standard | # of Years This Outcome Has Been Assessed | Report the Results of Your Data Analysis | Success: 70%  
Persistence: 85% | Success and Persistence Surpassed Benchmarks | Strong: Exceeds Benchmark  
Neutral: Meets Benchmark  
Weak: Misses Benchmark |
|--------------|-------------|----------------------|------------------------------------------|------------------------------------------|--------------------------------|-------------------------------------------------|-------------------------------------------------|

### Program / Discipline Assessment Report

**Program/Discipline:** Psychology  
**Responsibility:** Cheyne L. Bamford, Ph.D.

**Psychology Department Mission Statement**

In a continually assessed learning-centered environment, it is the psychology department's mission to offer transfer level courses that enable students to improve their learning, master psychological theories and concepts, develop critical thinking abilities and achieve their personal and academic goals.

**Program/Discipline's Assessment History:**

By using the assessment process as an evaluative technique, how has it previously affected your program's curricula and/or teaching strategies?

The Assessment Project in psychology has increased awareness of the psychology curriculum in general and has emphasized the instruction of scientific methodology, unifying themes in psychology, critical thinking and technology. This year’s assessment has provided information about psychology students’ success and persistence rates. The feedback from previous years’ assessment data has affected discipline-wide teaching strategies in both online and face-to-face psychology classes. Past assessment analyses have contributed to curriculum decisions, textbook adoptions, adjunct hiring, and the selection of classroom materials and media.
By using the assessment process as an evaluative technique, what changes to student learning have been noted?

Historical Context.

Objective Assessments of Intended Learning Outcomes

Table 1 presents the pre- and posttest means from the objective assessments conducted by the Psychology Department over the last eight years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Methodology</th>
<th>Themes</th>
<th>Critical Thinking</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-'02 Pre-Test</td>
<td>3.61</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>4.15</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>02-'03 Pre-Test</td>
<td>3.82</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Post-Test</td>
<td>4.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03-'04 Pre-Test</td>
<td>4.17 3.48</td>
<td>2.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>4.14 4.06</td>
<td>2.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04-'05 Pre-Test</td>
<td>3.48 3.40</td>
<td>1.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>4.11 3.81</td>
<td>2.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05-'06 Pre-Test</td>
<td>3.55 3.08</td>
<td>2.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>3.78 3.87</td>
<td>2.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06-'07 Pre-Test</td>
<td>3.93 3.57</td>
<td>2.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>3.99 3.59</td>
<td>2.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07-'08 Pre-Test</td>
<td>3.86 3.86</td>
<td>2.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>4.00 4.10</td>
<td>3.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08-'09 Pre-Test</td>
<td>3.58</td>
<td>2.12 3.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Test</td>
<td>4.01</td>
<td>3.12 4.90</td>
<td></td>
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</tbody>
</table>

Table 1: Historical Comparison of the Mean Performance (Pretest and Posttest) for Each Intended Learning Outcome

Student learning has been assessed for eight years in the psychology discipline. Some variability in the scientific methodology and unifying themes data has been observed, while great consistency has been observed in the assessment of critical thinking. The technology learning outcome and the student success and persistence outcome were measured for the first time this year.

What unintended consequences, if any, have occurred because of the assessment process?
Not applicable.
Who receives information about your department’s assessment and why?
The results of this year’s assessment will be shared with all psychology faculty (both full-time and adjunct), the division dean, and the assessment committee. These parties all contribute to the development of the psychology curriculum. Hard copies of this report will be distributed to all PSY instructors, and the results will be discussed at PSY departmental meetings. The results will also be discussed at Assessment Workshops, and will be used to stimulate curriculum changes and future assessment. Analysis of these results will be included in any revisions of the PSY strategic plan.

Issues that will be discussed include:
1. Improving the PSY assessment procedure, and maintaining the early delivery of the assessment tool in order to avoid compromising the pre-test data.
2. Implementing instructional methods to continue to improve students' comprehension of technology, especially for PSY 102 students.
3. Investigating differences in instruction and learning across course sections—teaching styles, testing, student motivation, etc.
4. Developing strategies to achieve higher rates of student success and persistence, and the setting of appropriate benchmarks for those outcomes.
5. Extending the assessment to include additional psychology concepts: development, language, intelligence, physiology, learning and memory, motivation and emotion, sensation and perception.
6. Ensuring the assessment of online sections and PSY 235 Human Growth and Development classes to better measure student learning across the psychology discipline.
7. Encouraging compliance of instructors in the administration of the assessment tool. An instructors’ failure to administer the assessment or submit the data severely limits the effectiveness of the department’s assessment process.

Following the discussion of these issues, recommended changes in the psychology curriculum will be implemented. Acting on feedback from this assessment data will close the loop, and allow present and future assessments to direct the development of the psychology curriculum.

Part 1: Previous Academic Year Assessment Summary
Previous Academic Year: 2008-09

<table>
<thead>
<tr>
<th>Outcome #: 1</th>
<th>Outcome Title: Scientific Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome Type: Discipline</td>
<td>Outcome Description: This learning outcome is assessed by measuring PSY students’ comprehension of the scientific method. Psychology is a behavioral science and relies upon the principles of the scientific method in research investigations.</td>
</tr>
</tbody>
</table>

Benchmark for success
1) Please specify what percentage of the sample size is expected to meet or exceed your benchmark.
2) What is the rationale for choosing this measure?

1. The present study employed a repeated-measures design, and a statistically significant improvement (p < .05) in student performance across the pre and post-tests for the methodology learning outcome was predicted.
2. Achieving this benchmark would confirm that the students’ comprehension of concepts related to the scientific method improved after receiving instruction in those concepts.

Description of assessment process:
1) What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review, etc.)?

1. The assessment method for this intended learning outcome was the direct measurement of student performance based on paired pre and post tests of student learning. This year, assessment data was collected from students in PSY 101 and PSY 102 (General Psychology I and II).
2) How do these methods show students are learning?
3) What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why?
4) How many students made up the sample size?

2. A significant improvement in student performance across the pre and post-tests would confirm that the students’ comprehension of concepts related to the scientific method improved after receiving instruction in those concepts.
3. The scientific methodology learning outcome is measured yearly. This timetable allows for an efficient research cycle, with data collected in the spring and analyzed in the fall.
4. 105 students from PSY 101 and PSY 102 completed both the pre- and post-tests.

Results
What were the results of the assessment process? (List results for each method, if more than one were used.)

Assessment of the Scientific Methodology Learning Outcome
SPSS for Windows was used to compare methodology pre- and posttest means in a repeated-measures design. Data from both the methodology pre-test and the methodology post-test were collected and entered into SPSS, with data included for analysis only if scores for both tests were available. Students with missing data were disregarded for analysis. Scores for both the pre-test and the post-test were collected for 105 students enrolled in PSY 101 and PSY 102. For the methodology data, the mean score of the post-test ($M = 4.01$) was significantly greater than the mean score of the pre-test ($M = 3.58$), $F(1,104) = 6.78$, $p < .05$. See the “'08 – '09 Methodology Assessment” graph below. The mean matching score on the pre-test of critical thinking ability increased by approximately a half a point on the post-test that followed course instruction, a statistically significant improvement. In terms of percentage scores, the average methodology pretest score was 60%, while the average methodology posttest score was 67%. Additionally, no main effect was observed for psychology course as a between subjects variable. The lack of a main effect of psychology course indicates that there were no significant differences in student performance on the critical thinking assessments across psychology courses (PSY 101 and PSY 102). Similarly, no main effect was observed for class section as a between subjects variable. The lack of a main effect of class section indicates that there were no significant differences in student performance on the methodology assessment across sections, regardless of course number or instructor.
What did the department learn?
1) How did group performance compare to the benchmark?
2) How does the data compare to the previous year, if applicable?
3) If multiple measures were used, how do they compare to each other?

1. The assessment of methodology revealed a significant improvement in student learning across the semester, and this finding suggests that instruction contributed to students’ improved performance on the methodology assessment at post-test.
2. In the ’01-’02 academic year, psychology students' comprehension of methodology concepts was evaluated. In the ’03-’04, ’04-’05, ’05-’06, ’06-’07, ’07-’08 and ’08-’09 academic years, that methodology assessment was replicated. Referring to the “Historical Comparison of Methodology Assessments” graph, it can be observed that student performance did not vary significantly across the pre and post tests in ’03-’04, ’06-’07 and ’07-’08 while student performance in methodological concepts increased significantly across the pre and post tests in ’01-’02, ’04-’05, and ’08-’09.
3. Not Applicable. A single direct measure of methodology learning was employed.

Student performance summary
1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)?

1. The Psychology department rates the ’08 – ’09 student learning in methodology as strong. The assessment of the methodology learning outcome revealed that students achieved the benchmark of significantly improved methodology scores across the semester. The results of the ‘08 – ’09 assessment support the hypothesis that students’ methodology comprehension would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the methodology data can be attributed to academic experiences stimulated by the psychology curriculum. The observed significant improvement in methodology comprehension confirms that student learning occurred as a result of receiving instruction in methodology concepts.
2. Overall, the pattern of results observed in this year's methodology assessment suggests that the psychology department directly facilitates the development of scientific methodology comprehension. Scientific methodology is a discipline-related learning outcome, and is a fundamental set of concepts for the psychology discipline and all sciences. The instruction in ACC's psychology courses is a contributor to learning that is absolutely necessary for empirical analysis and all scientific pursuits.

<table>
<thead>
<tr>
<th>Outcome #: 2</th>
<th>Outcome Type: General Ed</th>
</tr>
</thead>
<tbody>
<tr>
<td>If General Education outcome (choose by bolding): Communication; Critical Thinking; Quantitative Reasoning; Use of Technology; Diversity and Global Awareness; Leadership and Teamwork</td>
<td>Benchmark for success</td>
</tr>
</tbody>
</table>

1) Please specify what percentage of the sample size is expected to meet or exceed your benchmark. 
2) What is the rationale for choosing this measure? 

<table>
<thead>
<tr>
<th>Description of assessment process:</th>
<th>Outcome Title: Critical Thinking</th>
</tr>
</thead>
</table>

1. What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review, etc.)? 
2) How do these methods show students are learning? 
3) What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why? 
4) How many students made up the sample size? 

<table>
<thead>
<tr>
<th>Results</th>
<th>Assessment of the Critical Thinking Learning Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the results of the assessment process? (List results for each method, if more than one were used.)</td>
<td>SPSS for Windows was used to compare critical thinking pre- and posttest means in a repeated-measures design. Data from both the critical thinking pre-test and the critical thinking post-test were collected and entered into SPSS, with data included for analysis only if scores for both tests were available. Students with missing data were disregarded for analysis. Scores for both the pre-test and the post-test were collected for 105 students enrolled in PSY 101 and PSY 102. For the critical thinking data, the mean score of the post-test (M = 3.12) was significantly greater than the mean score of the pre-test (M = 2.12), F(1,97) = 36.85, p &lt; .01. See the “’08 – ’09 Critical Thinking Assessment” graph below. The mean matching score on the pre-test of critical thinking ability increased by a full point on the post-test that followed course instruction, a statistically significant improvement. In terms of percentage scores, the average critical thinking pretest score was 35%, while the average critical thinking posttest score was 52%. Additionally, no main effect was observed for psychology course as a between subjects variable. The lack of a main effect of...</td>
</tr>
</tbody>
</table>
psychology course indicates that there were no significant differences in student performance on the critical thinking assessments across psychology courses (PSY 101 and PSY 102). However, a significant main effect $F(1,97) = 7.36, p < .05$ was observed for class section as a between subjects variable. See the “Critical Thinking X Section Interaction” graph below. The main effect of class section indicates that there were significant differences in student performance on the critical thinking assessment across sections, regardless of course number.
What did the department learn?

1) How did group performance compare to the benchmark?
2) How does the data compare to the previous year, if applicable?
3) If multiple measures were used, how do they compare to each other?

1. The critical thinking assessment revealed a significant improvement in student learning across the semester, and suggests that instruction contributed to improved performance in critical thinking skills.
2. In the '03-'04 academic year, psychology students' critical thinking abilities were evaluated, and that critical thinking assessment was replicated in the subsequent five academic years. Referring to the “Historical Comparison of the Critical Thinking Assessment” graph, it can be observed that student performance in the development of critical thinking abilities increased significantly across the pre and post tests in '03-'04, '04-'05, '05-'06, '06-'07, '07-'08 and '08-'09. The Assessment Project in psychology has increased awareness of the psychology curriculum in general and has emphasized the instruction of methodology, themes, critical thinking, and technology. The improvement in student learning over time (that can be attributed to academic experience) indicates that the assessment driven emphasis on critical thinking has significantly improved student learning consistently over the last six years.
3. Not Applicable. A single direct measure of critical thinking was employed.
### Student performance summary

1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)?
2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?

1. The Psychology department rates the ’08 – ’09 student learning in critical thinking as strong. Students achieved the benchmark of significantly improved performance in critical thinking at the end of the semester. The results of the ’08 – ’09 assessment support the hypothesis that students’ critical thinking abilities would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the critical thinking data can be attributed to academic experiences stimulated by the psychology curriculum. The significant improvement in students’ critical thinking abilities indicates that student performance improved after receiving instruction in those concepts.

2. Overall, the pattern of results observed in this year's assessment of critical thinking suggests that the psychology department excels in the development of critical thinking abilities. Because critical thinking is also a General Education outcome, the psychology discipline is a contributor to the skills that are integral to transfer students’ upper division success and coursework completion. However, the significant interaction between class section and critical thinking revealed that some sections displayed strong gains across the semester in their critical thinking skills while other sections improved only slightly in their critical thinking skills. This finding requires an investigation into the differences in instruction and learning across class sections—teaching styles, testing, student motivation, etc.

### Outcome #: 3

<table>
<thead>
<tr>
<th>Outcome Type: General Education</th>
<th>Outcome Title: Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>If General Education outcome (choose by bolding): Communication; Critical Thinking; Quantitative Reasoning; Use of Technology; Diversity and Global Awareness; Leadership and Teamwork</td>
<td>Outcome Description: This learning outcome is assessed by measuring PSY students’ recognition of technological terms that are commonly found in the psychological literature. Many types of psychological research rely upon these technologies, and many forms of therapy incorporate these technologies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benchmark for success</th>
<th>1) Please specify what percentage of the sample size is expected to meet or exceed your benchmark. 2) What is the rationale for choosing this measure?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The present study employed a repeated-measures design, and a statistically significant improvement (p &lt; .05) in student performance across the pre and post-tests for the technology learning outcome was predicted. 2. Achieving this benchmark would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of assessment process:</th>
<th>1. The assessment method for this intended learning outcome was the direct measurement of student performance based on paired pre and post tests of student learning. This year, assessment data was collected from students in PSY 101 and PSY 102 (General Psychology I and II). 2. A significant improvement in student performance across the pre and post-tests would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts. 3. The technology learning outcome will be measured yearly, starting with this year. This timetable allows for an efficient research cycle, with data collected in the spring and analyzed in the fall. 4. 105 students from PSY 101 and PSY 102 face to face classes completed the technology pre- and post-tests.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review, etc.)? 2) How do these methods show students are learning? 3) What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why? 4) How many students made up the sample size?</td>
<td>1. The assessment method for this intended learning outcome was the direct measurement of student performance based on paired pre and post tests of student learning. This year, assessment data was collected from students in PSY 101 and PSY 102 (General Psychology I and II). 2. A significant improvement in student performance across the pre and post-tests would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts. 3. The technology learning outcome will be measured yearly, starting with this year. This timetable allows for an efficient research cycle, with data collected in the spring and analyzed in the fall. 4. 105 students from PSY 101 and PSY 102 face to face classes completed the technology pre- and post-tests.</td>
</tr>
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</table>

1. The Psychology department rates the ’08 – ’09 student learning in critical thinking as strong. Students achieved the benchmark of significantly improved performance in critical thinking at the end of the semester. The results of the ‘08 – ’09 assessment support the hypothesis that students’ critical thinking abilities would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the critical thinking data can be attributed to academic experiences stimulated by the psychology curriculum. The significant improvement in students’ critical thinking abilities indicates that student performance improved after receiving instruction in those concepts.

2. Overall, the pattern of results observed in this year's assessment of critical thinking suggests that the psychology department excels in the development of critical thinking abilities. Because critical thinking is also a General Education outcome, the psychology discipline is a contributor to the skills that are integral to transfer students’ upper division success and coursework completion. However, the significant interaction between class section and critical thinking revealed that some sections displayed strong gains across the semester in their critical thinking skills while other sections improved only slightly in their critical thinking skills. This finding requires an investigation into the differences in instruction and learning across class sections—teaching styles, testing, student motivation, etc.

### Outcome Type: General Education

<table>
<thead>
<tr>
<th>If General Education outcome (choose by bolding): Communication; Critical Thinking; Quantitative Reasoning; Use of Technology; Diversity and Global Awareness; Leadership and Teamwork</th>
<th>Outcome Title: Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome Description: This learning outcome is assessed by measuring PSY students’ recognition of technological terms that are commonly found in the psychological literature. Many types of psychological research rely upon these technologies, and many forms of therapy incorporate these technologies.</td>
<td>Benchmark for success</td>
</tr>
<tr>
<td>1) Please specify what percentage of the sample size is expected to meet or exceed your benchmark. 2) What is the rationale for choosing this measure?</td>
<td>1) The present study employed a repeated-measures design, and a statistically significant improvement (p &lt; .05) in student performance across the pre and post-tests for the technology learning outcome was predicted. 2. Achieving this benchmark would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts.</td>
</tr>
<tr>
<td>Description of assessment process:</td>
<td>1. The assessment method for this intended learning outcome was the direct measurement of student performance based on paired pre and post tests of student learning. This year, assessment data was collected from students in PSY 101 and PSY 102 (General Psychology I and II). 2. A significant improvement in student performance across the pre and post-tests would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts. 3. The technology learning outcome will be measured yearly, starting with this year. This timetable allows for an efficient research cycle, with data collected in the spring and analyzed in the fall. 4. 105 students from PSY 101 and PSY 102 face to face classes completed the technology pre- and post-tests.</td>
</tr>
<tr>
<td>1) What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review, etc.)? 2) How do these methods show students are learning? 3) What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why? 4) How many students made up the sample size?</td>
<td>1. The assessment method for this intended learning outcome was the direct measurement of student performance based on paired pre and post tests of student learning. This year, assessment data was collected from students in PSY 101 and PSY 102 (General Psychology I and II). 2. A significant improvement in student performance across the pre and post-tests would confirm that the students’ recognition of technological concepts improved after receiving instruction in those concepts. 3. The technology learning outcome will be measured yearly, starting with this year. This timetable allows for an efficient research cycle, with data collected in the spring and analyzed in the fall. 4. 105 students from PSY 101 and PSY 102 face to face classes completed the technology pre- and post-tests.</td>
</tr>
</tbody>
</table>
Assessment of the Technology Learning Outcome

SPSS for Windows was used to compare technology pre- and posttest means of student performance in a repeated-measures design. Data from both the technology pre-test and the technology post-test were collected and entered into SPSS, with data included for analysis only if scores for both tests were available. Students with missing data were disregarded for analysis. Scores for both the pre-test and the post-test were collected for 105 students enrolled in PSY 101 and PSY 102. For the technology data, the mean score of the post-test ($M = 4.90$) was significantly greater than the mean score of the pre-test ($M = 3.78$), $F(1,97) = 11.54, p < .01$. The mean matching score on the technology pre-test increased by more than a full point on the post-test that followed course instruction, a statistically significant improvement. See the “’08 – ’09 Technology Assessment” graph below. In terms of percentage scores, the mean technology pretest score was 38%, while the mean posttest score was 49%. Additionally, a significant main effect $F(1,97) = 3.74, p < .01$ was observed for class section as a between subjects variable. The main effect of class section indicates that there were significant differences in student performance on the technology assessment across sections, regardless of course number. Finally, a significant interaction $F(1,97) = 4.80, p < .05$ between technology and course was observed. The interaction between technology and course revealed that PSY 101 students improved more dramatically in their technology recognition than PSY 102 students did. See the “Technology X Course Interaction” graph below.
What did the department learn?
1) How did group performance compare to the benchmark?
2) How does the data compare to the previous year, if applicable?
3) If multiple measures were used, how do they compare to each other?

Student performance summary
1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)?
2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?

1. The technology assessment revealed a significant improvement in student learning across the semester, and suggests that instruction contributed to improved performance in technology concept recognition. However, the significant interaction between class section and critical thinking revealed that PSY 101 students sharply improved across the semester in their recognition of technology concepts while PSY 102 students improved only slightly in their technology recognition.
2. Not applicable. This is the first year of measuring the technology learning outcome.
3. Not applicable. A single direct measure of technology learning was employed.

The Psychology department rates the ’08 – ’09 student learning in technology as strong. The assessment of the technology learning outcome revealed that students achieved the benchmark of significantly improved technology scores across the semester. The results of the ‘08 – ’09 assessment support the hypothesis that students’ technology recognition would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the technology data can be attributed to academic experiences stimulated by the psychology curriculum. The observed significant improvement in technology recognition confirms that student learning occurred as a result of receiving instruction in technology concepts.

2. Overall, the pattern of results observed in this year's assessment of the technology learning outcome suggests that the psychology department excels in the instruction of technology concepts. Because technology is also a General Education outcome, the psychology discipline is a contributor to the skills that are integral to transfer students’ upper division success and coursework completion. However, the significant interaction between course and technology revealed that PSY 101 and PSY 102 differed in their technology learning, with PSY 101 students displaying much better learning than PSY 102 students. Clearly, an explanation for the modest
gains in technology recognition observed in PSY 102 classes (relative to PSY 101 classes) should be investigated and the future instruction of technology in PSY 102 should be supported and emphasized.

<table>
<thead>
<tr>
<th>Outcome #:</th>
<th>4</th>
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<tbody>
<tr>
<td><strong>Outcome Title:</strong></td>
<td>Student Success and Persistence in Psychology</td>
</tr>
<tr>
<td><strong>Outcome Type:</strong></td>
<td>Other Analysis of Institutional Data</td>
</tr>
<tr>
<td><strong>Outcome Description:</strong></td>
<td>This learning outcome is assessed by analyzing institutional data to determine PSY students’ success rates and persistence rates. The psychology department seeks to maintain a high level of student success and a high level of student persistence in psychology classes.</td>
</tr>
</tbody>
</table>

**Benchmark for success**

1. Student success is defined by a grade of “C” or better in any psychology course. The benchmark for any given semester for student success in psychology is 70% or better. Student persistence is defined as the completion of any psychology class with any grade. The benchmark for any given semester for student persistence in psychology is 85% or better. This benchmark can also be described as a withdrawal rate of less than 15%.
2. The institution measures year-to-year persistence and defines it as the proportion of full-time students who enrolled for the first time at the beginning of one academic year and who (1) were still enrolled for at least one credit at the beginning of the next academic year (fall-to-fall) and who (2) had not yet completed a degree or certificate. At ACC, the 2006 cohort persistence rate was 45%, indicating that 45% of the students who had previously enrolled at the college continued to be enrolled one year later. The Psychology department encourages student success and persistence, with the belief that students that persist through a single semester of study are likely to continue to enroll at the college and continue to persist in their academic pursuits. Note that an 85% semester persistence rate in psychology classes compares very favorably to a 45% year-to-year persistence rate at the institution.

**Description of assessment process:**

1. An analysis of institutional data was used to determine PSY students’ success rates and persistence rates across all psychology classes. This year, institutional data was collected from face to face and online sections of PSY 101 and PSY 102 (General Psychology I and II), PSY 116 (Stress Management), PSY 205 (Psychology of Gender), PSY 226 (Social Psychology), PSY 235 (Human Growth and Development), PSY 238 (Child Development), and PSY 249 (Abnormal Psychology).
2. Persistence to completion in a psychology class affords the student exposure to the entire class curriculum. Success in the class implies that the student has mastered the course competencies and has received a passing grade of “C” or better.
3. The student success and persistence data is analyzed in both the fall and spring semesters.
4. Success and persistence data was analyzed for 647 students in fall ’08 and 702 students in spring ’09. Data was analyzed for both face to face and online classes.
Results
What were the results of the assessment process? (List results for each method, if more than one were used.)

Assessment of the Student Success and Persistence Learning Outcome
Student success and persistence is an assessment outcome that relies upon institutional data. Data were analyzed for all sections of all psychology classes.

PSY Student Success and Persistence Fall ’08 and Spring ‘09

<table>
<thead>
<tr>
<th></th>
<th>Success</th>
<th>Failure</th>
<th>Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2008</td>
<td>71.3%</td>
<td>16.5%</td>
<td>87.8%</td>
</tr>
<tr>
<td>Spring 2009</td>
<td>71.5%</td>
<td>17.1%</td>
<td>88.6%</td>
</tr>
</tbody>
</table>

What did the department learn?
1) How did group performance compare to the benchmark?
2) How does the data compare to the previous year, if applicable?
3) If multiple measures were used, how do they compare to each other?

1. In both fall ’08 and spring ’09, the student success rate surpassed the 70% benchmark (fall: 71.3%, spring: 71.5%) In both fall ’08 and spring ’09, the student persistence rate surpassed the 85% benchmark (fall: 87.8%, spring: 88.6%).
2. Not applicable. This is the first year of measuring the student success and persistence outcome.
3. Not applicable. A single measure of student success and persistence was employed. However, student success and persistence was measured in both fall ’08 and spring ’09, and very similar rates of success and persistence were observed across semesters (see “PSY Student Success and Persistence Fall ’08 and Spring ‘09” table).

Student performance summary
1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)?
2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?

1. The Psychology department rates the ’08 – ’09 student success and persistence as neutral.
2. Overall, the pattern of results observed in this year’s student success and persistence assessment suggests that the psychology department produces a high rate of student success and encourages student persistence. At present, the success rate is slightly exceeding the 70% benchmark. A 75% student success rate would be ideal, and is achievable. The student persistence rate is currently exceeding the 85% benchmark, and a 90% benchmark is within reach and could be achieved with a dedicated departmental effort. Strategies to achieve these new benchmarks will be discussed within the psychology department.
Part 2: Current Academic Year Assessment Plan

Current Academic Year: 2009-2010

Intended Learning Outcomes (only include if they differ from those noted in Part 1)

Intended Learning Outcomes:
1. Scientific Methodology – Discipline Outcome
2. Critical Thinking – General Education Outcome
3. Technology – General Education Outcome
4. Student Success and Persistence – Other Outcome

Assessment Method(s) (only include if they differ from those noted in Part 1)
1. Scientific Methodology: Pre–Post Test
2. Critical Thinking: Pre-Post Test
3. Technology: Pre-Post Test
4. Student Success: Analysis of PSY student success rates and student persistence rates

Benchmarks (only include if they differ from those noted in Part 1)
1. Scientific Methodology: Statistically significant improvement across the pre-post tests
2. Critical Thinking: Statistically significant improvement across the pre-post tests
3. Technology: Statistically significant improvement across the pre-post tests
4. Student Success: Surpassing an 80% success rate with success defined as a passing grade (C or better)

Have you submitted a separate budget worksheet? (Choose by bolding; for information about this worksheet, please refer to the specific budgeting e-mail sent by the committee chairperson.)

Yes      No

Please submit this report (including both last year's summary and this year's plan) in a Word document to the Program Assessment committee chairperson (Cheyne Bamford: cheyne.bamford@arapahoe.edu). If you have any questions about the process, please contact the chairperson.