Psychological Themes: Students will demonstrate an ability to categorize the seven major unifying themes in psychology and discriminate the characteristics of each theme.

Assessment Author(s)
Cheyne Bamford

Measure 1 Type:
Direct

Pre-Post tests

Measure 1 Description:
Psychological Themes: Students will demonstrate an ability to identify the seven major unifying themes in psychology and discriminate the characteristics of each theme. This learning outcome measured students' knowledge of seven major unifying themes in the field of psychology. These unifying themes might be described as enduring issues in psychology. The seven unifying themes are:

1. Psychology is empirical.
2. Psychology is theoretically diverse.
3. Psychology evolves in a sociohistorical context.
4. Behavior is determined by multiple causes.
5. Our behavior is shaped by our cultural heritage.
6. Heredity and environment jointly influence behavior.
7. Our experience of the world is highly subjective.

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) and PSY 235 (Human Growth and Development). A significant improvement in student performance across the pre and post-tests would confirm that the students’ understanding of concepts related to the unifying themes in psychology improved after receiving instruction in those concepts.

Measure 1 Sample Size:

177

1) Describe the benchmark for this measure.

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 unifying themes learning outcome was predicted.

2) What is the rationale for choosing this benchmark?

Achieving this benchmark would confirm that students’ understanding of unifying themes in psychology improved after receiving instruction in those concepts.

Measure 2 Type:

Indirect

Survey or questionnaire

Measure 2 Description:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. For each survey item, students responded to a 5-point Likert scale labeled "Strongly Disagree," "Disagree," "Neutral," "Agree" and "Strongly Agree."

Measure 2 Sample Size:

177

1) Describe the benchmark for this measure.

It was predicted that 70% of the respondents would "agree" or "strongly agree" that "My psychology class(es) at ACC have facilitated my understanding of the unifying themes in psychology (empiricism, theoretical diversity, sociohistorical context, multifactorial causation, cultural heritage, heredity and environment and subjectivity of experience)."

2) What is the rationale for choosing this benchmark?

This benchmark represents the large majority (70%) of students agreeing that the psychology class contributed to their student learning.

This discipline outcome was

Missed benchmark

Measure 1 Results:
SPSS for Windows was used to compare themes pre- and posttest means of student performance in a repeated-measures design. Data from both the themes pre-test and the themes 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 177 students enrolled in PSY 101, PSY 102 and PSY 235. For the themes data, the mean score of the post-test (M = 4.16) did not significantly differ from the mean score of the pre-test (M = 3.84), \( F(1,176) = 1.89, p = .171 \). See the Psychological Themes Learning Outcome graph below. The mean matching score on the pre-test of unifying themes increased by approximately one third of a point on the post-test that followed course instruction. In terms of percentage scores, the average themes pretest score was 55%, while the average posttest score was 59%.

Additionally, a significant main effect of PSY course was observed as a between subjects variable, \( F(2,172) = 4.061, p < .05 \). The main effect of psychology course indicates that there were significant differences in student performance on the psychological themes measure across psychology courses (PSY 101, PSY 102 and PSY 235).
Measure 2 Results:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. 88% of the respondents "agreed" or "strongly agreed" that "My psychology class(es) at ACC have facilitated my understanding of the unifying themes in psychology (empiricism, theoretical diversity, sociohistorical context, multifactorial causation, cultural heritage, heredity and environment and subjectivity of experience)." Results for the four student survey questions are presented below:
The Unifying Themes component of the student survey surpassed the benchmark of 70%, with 88% of students stating that they "agree" or "strongly agree" that their psychology class contributed to their understanding of the unifying themes in psychology.

1) How did unit/department performance compare to the benchmark?

The themes assessment indicated that changes in student learning that were observed across the semester did not achieve statistical significance. Therefore, the benchmark was not achieved this year. The unifying themes measure demonstrated a non-significant improvement in student learning this year.

2) How does the data compare to the previous year, if applicable?

In the '02-'03 academic year, students' comprehension of unifying themes in psychology was evaluated. The themes assessment was replicated in the '03-'04, '04-'05, '05-'06, '06-'07, '07-'08, '10-'11, '12, '13 and '14 academic years. Referring to the Themes Assessment History graph, it can be observed that student performance in the comprehension of psychology themes increased significantly across the pre and post tests in '02-'03, '03-'04, '04-'05, '05-'06, '10-'11, '12, '14, and '15. Student performance did not vary significantly
across the pre and post tests in '06 - '07, '07 - '08, '13 and '16.

3) If multiple measures were used, how do they compare to each other?

Although the direct measure of unifying themes in psychology did not demonstrate a significant improvement in student learning across the pre- and post-tests, the change was in the right direction and demonstrated a non-significant improvement in student learning. The indirect measure of student learning, the Unifying Themes...
component of the student survey, surpassed the benchmark of 70%, with 88% of students stating that they "agree" or "strongly agree" that their psychology class contributed to their understanding of the unifying themes in psychology.

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong exceeds benchmark, neutral meets benchmark, or weak misses benchmark)?

Missed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?

The Psychology department rates the '16 student learning in psychological themes as weak (missed benchmark). The assessment of the unifying themes outcome revealed that students failed to achieve the benchmark of significantly improved unifying themes scores across the semester. Overall, the pattern of results observed in this year's assessment of themes suggests that the Psychology Department must emphasize students' development of themes comprehension. Psychological themes is a discipline-related learning outcome, and is a fundamental set of concepts for the psychology discipline. The data from the themes assessment failed to achieve the stated benchmark of significantly improved performance across the semester, and the unifying themes component of the psychology curriculum will require attention and revision. The Psychology Department will continue to revise the curriculum for themes instruction, as the benchmark for student learning was not achieved in this year's themes assessment.

The results of this year's assessment will be shared with all psychology faculty (both full-time and adjunct), the Psychology Department chair, the LCBSS dean, and the assessment committee. These parties all contribute to the development of the psychology curriculum. 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 Psychology Program Review.

Issues that will be discussed include:

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<tbody>
<tr>
<td>1.</td>
<td>Improving the PSY assessment procedure, and maintaining the early delivery of the assessment tool in order to avoid compromising the pre-test data.</td>
</tr>
<tr>
<td>2.</td>
<td>Implementing instructional methods to continue to improve students' development of research methodology and information management abilities.</td>
</tr>
<tr>
<td>3.</td>
<td>Modifying the psychology curriculum to further emphasize quantitative reasoning in psychology, and encouraging additional emphasis on quantitative reasoning within the PSY 101 and PSY 235 courses.</td>
</tr>
<tr>
<td>4.</td>
<td>Investigating differences in instruction and learning across course sections, teaching styles, testing, student motivation, etc.</td>
</tr>
<tr>
<td>5.</td>
<td>Developing strategies to achieve higher rates of student success and persistence, and the setting of appropriate benchmarks for those outcomes.</td>
</tr>
<tr>
<td>6.</td>
<td>Extending the assessment to include additional psychology concepts: development, language, intelligence, physiology, learning and memory, motivation and emotion, sensation and perception.</td>
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<tr>
<td>7.</td>
<td>Encouraging compliance of instructors in the administration of the assessment tool. An instructor's failure to administer the assessment or submit the data severely limits the effectiveness of the department's assessment process.</td>
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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.

3) How will your assessment results enable you to improve institutional processes or academic instruction in order to support, facilitate and/or stimulate student learning?

The Psychology Department must emphasize students' development of psychological themes comprehension. The unifying themes component of the psychology curriculum will require attention and revision. The Psychology Department will continue to revise the curriculum for themes instruction, as the benchmark for student learning was not achieved in this year's themes assessment.

Further Action:

Describe the action plan:

The Psychology Department must emphasize students' development of psychological themes comprehension. The unifying themes component of the psychology curriculum will require attention and revision. The Psychology Department will continue to revise the curriculum for themes instruction, as the benchmark for student learning was not achieved in this year's themes assessment.

Person/ Group responsible for action

Cheyne Bamford

Priority

Medium

Discipline Outcome

Student Success and Persistence: Students will be encouraged to pursue success in psychology department offerings and to persist to completion in the PSY classes in which they enroll.

Assessment Author(s)

Cheyne Bamford
Measure 1 Type:
Indirect

Institutional data

Measure 1 Description:
Student Success and Persistence in Psychology. Students will be encouraged to pursue success in psychology department offerings and to persist to completion in the PSY classes in which they enroll. 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. 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). 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.

Measure 1 Sample Size:
1919

1) Describe the benchmark for this measure.
Student success is defined by a grade of "C" or better in any psychology course. The benchmark for student success in psychology is 70% of students achieving a "C" 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) What is the rationale for choosing this benchmark?
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 a 90% semester persistence rate in psychology classes compares very favorably to a 45% year-to-year persistence rate at the institution.

This discipline outcome was
Surpassed benchmark

Measure 1 Results:
Student success and persistence is an assessment outcome that relies upon institutional data. Data were analyzed for all sections of all psychology courses.
The student success rate surpassed the 70% benchmark in AY 16 (77%). The persistence rate surpassed the 85% benchmark in AY 16 (90%).
1) How did unit/department performance compare to the benchmark?

The student success rate surpassed the 70% benchmark in AY 16 (77%). The persistence rate surpassed the 85% benchmark in AY 16 (90%).

2) How does the data compare to the previous year, if applicable?

Both student success and persistence benchmarks have been consistently surpassed in the Psychology discipline, as indicated by data from the last four years (see below).

<table>
<thead>
<tr>
<th></th>
<th>Success</th>
<th>Failure</th>
<th>Persistence</th>
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<tbody>
<tr>
<td>AY 13</td>
<td>1995</td>
<td>198</td>
<td>2286</td>
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<td>AY 14</td>
<td>1830</td>
<td>220</td>
<td>2150</td>
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<tr>
<td>AY 15</td>
<td>1632</td>
<td>221</td>
<td>1963</td>
</tr>
<tr>
<td>AY 16</td>
<td>1471</td>
<td>155</td>
<td>1721</td>
</tr>
</tbody>
</table>
3) If multiple measures were used, how do they compare to each other?

Not applicable. A single indirect measure of Student Success and Persistence was employed.

1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong exceeds benchmark, neutral meets benchmark, or weak misses benchmark)?

Surpassed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?

The Psychology department rates the '16 student success and persistence as strong (exceeds benchmark). 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 has surpassed the 70% benchmark, and has been stable at 75% for the last several years. The student persistence rate is currently exceeding the 85% benchmark, and a 90% persistence rate has been achieved for every year except '15.

3) How will your assessment results enable you to improve institutional processes or academic instruction in order to support, facilitate and/or stimulate student learning?

The high rates of student success and persistence in the psychology discipline provides empirical evidence of student learning that can be attributed to the influence of psychology instruction. Therefore, the psychology department will continue to emphasize quality instruction and student success.

Further Action:

Further Action Unnecessary

Describe the action plan:

It has been demonstrated that students are succeeding and persisting within the curriculum that is provided by the psychology department. Therefore, no action will be taken this year to modify the present emphasis on student success and persistence that is maintained by the psychology department.

Discipline Outcome
Technology: Students will differentiate the various technologies employed within the psychology discipline and identify the appropriate applications of those technologies.

Assessment Author(s)
Cheyne Bamford

Measure 1 Type:
Direct

Measure 1 Description:
Technology: Students will differentiate the various technologies employed within the psychology discipline and identify the appropriate applications of those technologies.
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) and PSY 235 (Human Growth and Development). A significant improvement in student performance across the pre and post-tests would confirm that students' understanding of technology concepts improved after receiving instruction in those concepts.

Measure 1 Sample Size:
177

1) Describe the benchmark for this measure.
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 technology outcome was predicted.

2) What is the rationale for choosing this benchmark?
Achieving this benchmark would confirm that students' mastery of technology concepts improved after receiving instruction in those concepts.

Measure 2 Type:
Indirect

Survey or questionnaire

Measure 2 Description:
A student survey was administered to assess student perceptions about student learning in the psychology discipline. For each survey item, students responded to a 5-point Likert scale labeled "Strongly Disagree," "Disagree," "Neutral," "Agree" and "Strongly Agree."

**Measure 2 Sample Size:**

177

1) Describe the benchmark for this measure.

It was predicted that at least 70% of the respondents would "agree" or "strongly agree" that "my psychology class(es) at ACC have helped me differentiate the various technologies employed within the psychology discipline and identify the appropriate applications of those technologies."

2) What is the rationale for choosing this benchmark?

This benchmark represents the large majority (70%) of students agreeing that the psychology class contributed to their student learning.

**This discipline outcome was Surpassed benchmark**

**Measure 1 Results:**

SPSS for Windows was used to compare technology pre- and posttest means of student performance in a repeated-measures design. Data from the technology pre-test and post-test were collected and entered into SPSS, with data included for analysis only if scores for both tests were available. Scores for both the pre-test and the post-test were collected for 177 students enrolled in PSY 101, PSY 102 and PSY 235. For the technology data, the mean score of the post-test (M = 5.05) was significantly greater than the mean score of the pre-test (M = 4.28), F(1,176) = 12.072, p < .001. The mean matching score on the technology pre-test increased by more than three quarters of a point on the post-test that followed course instruction, a statistically significant improvement. See the Technology Discipline Outcome graph below. In terms of percentage scores, the mean technology pretest score was 43%, while the mean posttest score was 51%.
A main effect was observed for psychology course as a between subjects variable, $F(2, 172) = 4.374, p < .05$. The effect of psychology course indicates that there were significant differences in student performance in the technology measure across psychology courses (PSY 101, PSY 102 and PSY 235).

Additionally, a main effect was observed for teaching modality as a between subjects variable, $F(1, 172) = 23.934, p < .001$. The effect of teaching modality indicates that there were significant differences in student performance in the technology measure across delivery modalities (face-to-face and online delivery).
Measure 2 Results:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. 76% of the respondents "agreed" or "strongly agreed" that "My psychology class(es) at ACC have helped me differentiate the various technologies employed within the psychology discipline and identify the appropriate applications of those technologies." Results for the four student survey questions can be viewed below:
The Technology component of the student survey surpassed the benchmark of 70%, with 76% of students stating that they "agree" or "strongly agree" that their psychology class contributed to their understanding of technology in the psychology discipline.

1) How did unit/department performance compare to the benchmark?

The Technology assessment revealed a significant improvement in student learning across the semester, and suggests that instruction contributed to improved performance in student's comprehension of Technology concepts.

2) How does the data compare to the previous year, if applicable?

Referring to the Technology Assessment History table and graph, it can be observed that student performance in the comprehension of Technology concepts increased significantly across the pre- and post-tests in '08-'09, '09-'10, '10-'11, '15 and '16.
3) If multiple measures were used, how do they compare to each other?

For the direct measure of student learning of the technology outcome, a statistically significant improvement in technology learning was observed across the semester. For the indirect measure of student perception of psychology learning, the Technology component of the student survey met the benchmark of 70%, with 71% of students stating that they "agree" or "strongly agree" that their psychology class(es) contributed to their comprehension of technology in the psychology discipline. Both measures compare favorably.
1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong exceeds benchmark, neutral meets benchmark, or weak misses benchmark)?

Surpassed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?

The Psychology department rates the ’16 student learning in technology as strong (surpassed benchmark). Overall, the pattern of results observed in this year's technology assessment suggests that the psychology department excels in the instruction of technology. Technology is a discipline-related learning outcome, and is a fundamental set of concepts for the psychology discipline. The results of this year's assessment will be shared with all psychology faculty (both full-time and adjunct), the Psychology Department chair, the LCBSS dean, and the assessment committee. These parties all contribute to the development of the psychology curriculum. 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, including Assessment Poster Sessions and will be used to stimulate curriculum changes and future assessment. Analysis of these results will be included in any revisions of the Psychology Program Review.

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' development of research methodology and information management abilities.

3. Modifying the psychology curriculum to further emphasize quantitative reasoning in psychology, and working to change the student perception of the teaching of quantitative reasoning in psychology.

4. Investigating differences in instruction and learning across course sections, including teaching styles, testing, student motivation, etc.

5. Developing strategies to achieve higher rates of student success and persistence, and the setting of appropriate benchmarks for those outcomes.

6. Extending the assessment to include additional psychology concepts: development, stress and health, intelligence, physiology, learning and memory, motivation and emotion, sensation and perception, psychopathology and psychotherapy.

7. Encouraging compliance of instructors in the administration of the assessment tool. An instructor's 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.

3) How will your assessment results enable you to improve institutional processes or academic instruction in order to support, facilitate and/or stimulate student learning?

The discovery of a significant improvement in student learning across the pre- and post-tests in the technology assessment provides empirical evidence of student learning that can be attributed to the influence of
psychology instruction. Therefore, the psychology department will continue to emphasize the quality instruction of technology.

Further Action:
Further Action Unnecessary

Describe the action plan:
It has been demonstrated that students are benefiting from the technology instruction that is provided by the psychology department. Therefore, no action will be taken to modify the technology component of the psychology curriculum this year.

Learning Outcome
Quantitative Reasoning: Students will display quantitative reasoning abilities in the calculation of statistical procedures and the comprehension of quantitative psychological phenomena.

Assessment Author(s)
Cheyne Bamford

Measure 1 Type:
Direct

Pre-Post tests

Measure 1 Description:
Quantitative Reasoning: Students will display quantitative reasoning abilities in the calculation of statistical procedures and the comprehension of quantitative psychological phenomena. This learning outcome is assessed by measuring PSY students' ability to display quantitative reasoning abilities in psychology-related examples of data analysis, statistical calculations, and understanding of quantitative psychological phenomena. Many types of psychological research rely upon quantitative reasoning abilities for data analysis and calculation. 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) and PSY 235 (Human Growth and Development). A significant improvement in student performance across the pre and post-tests would confirm that the students' quantitative reasoning abilities improved after receiving instruction in those concepts.
Measure 1 Sample Size:
177

1) Describe the benchmark for this measure.

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 quantitative reasoning learning outcome was predicted.

2) What is the rationale for choosing this benchmark?

Achieving this benchmark would confirm that students' quantitative reasoning abilities improved after receiving instruction in those concepts.

Measure 2 Type:
Indirect

Pre-Post tests

Measure 2 Description:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. For each survey item, students responded to a 5-point Likert scale labeled "Strongly Disagree," "Disagree," "Neutral," "Agree" and "Strongly Agree."

Measure 2 Sample Size:
177

1) Describe the benchmark for this measure.

A student survey was administered to assess student perceptions about student learning in the psychology discipline. It was predicted that at least 70% of the respondents would "agree" or "strongly agree" that "my psychology class(es) at ACC have facilitated my quantitative reasoning abilities in the calculation of statistical procedures and the comprehension of quantitative psychological phenomena."

2) What is the rationale for choosing this benchmark?

This benchmark represents the large majority (70%) of students agreeing that the psychology class contributed to their student learning.

This learning outcome was
Surpassed benchmark

Measure 1 Results:

Quantitative Reasoning
SPSS for Windows was used to compare quantitative reasoning pre- and posttest means of student performance in a repeated-measures design. Data from both the quantitative reasoning pre-test and the
quantitative reasoning 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 139 students enrolled in PSY 101, PSY 102 and PSY 235. For the quantitative reasoning data, the mean score of the post-test ($M = 5.42$) was significantly greater than the mean score of the pre-test ($M = 4.84$), $F(1,176) = 17.096, p < .001$. The mean matching score on the quantitative reasoning pre-test increased by approximately a half point on the post-test that followed course instruction, a statistically significant improvement. See the Quantitative Reasoning Learning Outcome graph below. In terms of percentage scores, the mean quantitative reasoning pretest score was 48%, while the mean posttest score was 54%.

A main effect was observed for psychology course as a between subjects variable, $F(2,172) = 4.008, p < .05$. The effect of psychology course indicates that there were significant differences in student performance in the quantitative reasoning measure across psychology courses (PSY 101, PSY 102 and PSY 235).
Additionally, a main effect was observed for teaching modality as a between subjects variable, \( F(2,172) = 3.905, p < .05 \). The effect of teaching modality indicates that there were significant differences in student performance in the quantitative reasoning measure across delivery modalities (face-to-face and online delivery).

Measure 2 Results:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. 71% of the respondents "agreed" or "strongly agreed" that "My psychology class(es) at ACC have facilitated my quantitative reasoning abilities in the calculation of statistical procedures and the comprehension of quantitative psychological phenomena." Results for the four student survey questions can be viewed below:
The Quantitative Reasoning component of the student survey met the benchmark (70%), with 71% of students stating that they "agree" or "strongly agree" that their psychology class contributed to their development of quantitative reasoning.

1) How did unit/department performance compare to the benchmark?

The quantitative reasoning assessment revealed a significant improvement in student learning across the semester, and suggests that instruction contributed to improved performance in students quantitative reasoning abilities.

2) How does the data compare to the previous year, if applicable?

Referring to the Quantitative Reasoning Assessment History table and graph, it can be observed that student performance in the development of quantitative reasoning abilities increased significantly across the pre- and post-tests in '12, '13, '14, '15 and '16.
3) If multiple measures were used, how do they compare to each other?

For the direct measure of student learning of quantitative reasoning, a statistically significant improvement in quantitative reasoning was observed across the semester.

For the indirect measure of student perception of psychology learning, the Quantitative Reasoning component of the student survey surpassed the benchmark (70%), with 71% of students stating that they "agree" or "strongly agree" that their psychology class(es) have facilitated quantitative reasoning abilities in the calculation of statistical procedures and the comprehension of quantitative psychological phenomena.

The two measures of student learning compare favorably.
1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong exceeds benchmark, neutral meets benchmark, or weak misses benchmark)?

Surpassed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?

The Psychology department rates the '16 student learning in quantitative reasoning as strong (surpassed benchmark). The assessment of the quantitative reasoning learning outcome revealed that students achieved the benchmark of significantly improved quantitative reasoning scores across the semester. The results of the '16 assessment support the hypothesis that students' quantitative reasoning would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the quantitative reasoning data can be attributed to academic experiences stimulated by the psychology curriculum. The observed significant improvement in quantitative reasoning confirms that student learning occurred as a result of receiving instruction in quantitative reasoning.

Overall, the pattern of results observed in this year's assessment of the quantitative reasoning learning outcome suggests that the psychology department excels in the instruction of quantitative reasoning skills. Because quantitative reasoning is also a Student Learning Outcome, the psychology discipline is a contributor to the skills that are integral to transfer students' upper division success and coursework completion.

The results of this year's assessment will be shared with all psychology faculty (both full-time and adjunct), the Psychology Department chair, the LCBSS dean, and the assessment committee. These parties all contribute to the development of the psychology curriculum. 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 Psychology Program Review.

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' development of research methodology and information management abilities.

3. Modifying the psychology curriculum to further emphasize quantitative reasoning in psychology, and encouraging additional emphasis on quantitative reasoning within the PSY 101 and PSY 235 courses.

4. Investigating differences in instruction and learning across course sections, teaching styles, testing, student motivation, etc.

5. Developing strategies to achieve higher rates of student success and persistence, and the setting of appropriate benchmarks for those outcomes.

6. Extending the assessment to include additional psychology concepts: development, language, intelligence, physiology, learning and memory, motivation and emotion, sensation and perception.

7. Encouraging compliance of instructors in the administration of the assessment tool. An instructor's 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.

3) How will your assessment results enable you to improve institutional processes or academic instruction in order to support, facilitate and/or stimulate student learning?

The discovery of a significant improvement in student learning across the pre- and post-tests in the quantitative reasoning assessment provides empirical evidence of student learning that can be attributed to the influence of psychology instruction. Therefore, the psychology department will continue to emphasize quality instruction of quantitative reasoning.

Further Action:
Further Action Unnecessary

Describe the action plan:

It has been demonstrated that students are benefiting from the instruction in quantitative reasoning that is provided by the psychology department. Therefore, no action will be taken to modify the quantitative reasoning component of the psychology curriculum this year.

Learning Outcome

Communication: Students will differentiate the cognitive and behavioral components of human language, social interaction and communication from the perspective of the psychology discipline.

Assessment Author(s)
Cheyne Bamford

Measure 1 Type:
Direct

Pre-Post tests
Measure 1 Description:
Communication: Students will differentiate the cognitive and behavioral components of human language, social interaction and communication from the perspective of the psychology discipline. 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) and PSY 235 (Human Growth and Development). A significant improvement in student performance across the pre and post-tests would confirm that the students’ understanding of communication concepts improved after receiving instruction in those concepts.

Measure 1 Sample Size:
177

1) Describe the benchmark for this measure.
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 communication learning outcome was predicted.

2) What is the rationale for choosing this benchmark?
Achieving this benchmark would confirm that students' mastery of communication concepts improved after receiving instruction in those concepts.

Measure 2 Type:
Indirect
Survey or questionnaire

Measure 2 Description:
A student survey was administered to assess student perceptions about student learning in the psychology discipline. For each survey item, students responded to a 5-point Likert scale labeled "Strongly Disagree," "Disagree," "Neutral," "Agree" and "Strongly Agree."

Measure 2 Sample Size:
177

1) Describe the benchmark for this measure.
It was predicted that at least 70% of the respondents would "agree" or "strongly agree" that "my psychology class(es) at ACC have helped me differentiate the cognitive and behavioral components of human language, social interaction and communication from the perspective of the psychology discipline."

2) What is the rationale for choosing this benchmark?
This benchmark represents the large majority (70%) of students agreeing that the psychology class(es) contributed to their student learning.
This learning outcome was surpassed benchmark.

Measure 1 Results:

SPSS for Windows was used to compare communication pre- and posttest means of student performance in a repeated-measures design. Data from the communication pre-test and post-test were entered into SPSS, with data included for analysis only if scores for both tests were available. Scores for both the pre-test and the post-test were collected for 107 students enrolled in PSY 101, PSY 102 and PSY 235. For the communication data, the mean score of the post-test ($M = 6.31$) was significantly greater than the mean score of the pre-test ($M = 5.82$), $F(1,176) = 5.870$, $p < .05$. The mean matching score on the communication pre-test increased by approximately a half point on the post-test that followed course instruction, a statistically significant improvement. See the Communication Learning Outcome graph below. In terms of percentage scores, the mean quantitative reasoning pretest score was 58%, while the mean posttest score was 63%.

A main effect was observed for psychology course as a between subjects variable, $F(2,172) = 11.417$, $p < .001$. The effect of psychology course indicates that there were significant differences in student performance in the communication measure across psychology courses (PSY 101, PSY 102 and PSY 235).
Additionally, a main effect was observed for teaching modality as a between subjects variable, $F(2,172) = 30.237, p < .001$. The effect of teaching modality indicates that there were significant differences in student performance in the communication measure across delivery modalities (face-to-face and online delivery).

Measure 2 Results:

A student survey was administered to assess student perceptions about student learning in the psychology discipline. 91% of the respondents "agreed" or "strongly agreed" that "My psychology class(es) at ACC have helped me differentiate the cognitive and behavioral components of human language, social interaction and communication from the perspective of the psychology discipline." Results for the four student survey questions are presented below:
The Communication component of the student survey surpassed the benchmark (70%), with 91% of students stating that they "agree" or "strongly agree" that their psychology class contributed to their understanding of communication concepts in psychology.

1) How did unit/department performance compare to the benchmark?

The Communication assessment revealed a significant improvement in student learning across the semester, and suggests that instruction contributed to improved performance in student’s comprehension of communication concepts.

2) How does the data compare to the previous year, if applicable?

This is the second year of the Communication Learning Outcome assessment in Psychology. Referring to the Communication Assessment History table and graph, it can be observed that student performance in the comprehension of Communication concepts increased significantly across the pre- and post-tests in ’15 and ’16.
3) If multiple measures were used, how do they compare to each other?

For the direct measure of student learning of communication, a statistically significant improvement in communication was observed across the semester.
For the indirect measure of student perception of psychology learning, the Communication component of the student survey surpassed the benchmark (70%), with 91% of students stating that they "agree" or "strongly agree" that their psychology class(es) contributed to their understanding of language, social interaction and communication from the psychology perspective.
The two measures of student learning compare favorably.
1) Based on the findings, how does the unit/department rate performance in regards to this outcome (strong exceeds benchmark, neutral meets benchmark, or weak misses benchmark)?

Surpassed benchmark

2) How does this assessment affect plans for this coming year in terms of strategic planning, budget planning, administrative and educational support unit planning, and assessment planning?

The Psychology department rates the '16 student learning in communication as strong (surpassed benchmark). Overall, the pattern of results observed in this year's communication assessment suggests that the psychology department excels in the instruction of communication. Communication is a learning outcome, and is emphasized across the institution.

The results of this year's assessment will be shared with all psychology faculty (both full-time and adjunct), the Psychology Department chair, the LCBSS dean, and the assessment committee. These parties all contribute to the development of the psychology curriculum. 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, including Assessment Poster Sessions and will be used to stimulate curriculum changes and future assessment. Analysis of these results will be included in any revisions of the Psychology Program Review.

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' development of research methodology and information management abilities.

3. Modifying the psychology curriculum to further emphasize quantitative reasoning in psychology, and working to change the student perception of the teaching of quantitative reasoning in psychology.

4. Investigating differences in instruction and learning across course sections, including teaching styles, testing, student motivation, etc.

5. Developing strategies to achieve higher rates of student success and persistence, and the setting of appropriate benchmarks for those outcomes.

6. Extending the assessment to include additional psychology concepts: development, stress and health, intelligence, physiology, learning and memory, motivation and emotion, sensation and perception, psychopathology and psychotherapy.

7. Encouraging compliance of instructors in the administration of the assessment tool. An instructor's 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.

3) How will your assessment results enable you to improve institutional processes or academic instruction in order to support, facilitate and/or stimulate student learning?
The assessment of the communication learning outcome revealed that students achieved the benchmark of significantly improved communication scores across the semester. The results of the ’16 assessment support the hypothesis that students’ comprehension of communication concepts would improve with instruction. The statistically significant improvement in academic performance that was observed across the semester in the communication data can be attributed to academic experiences stimulated by the psychology curriculum. The observed significant improvement in communication confirms that student learning occurred as a result of receiving instruction in communication concepts.

Overall, the pattern of results observed in this year’s assessment of the communication learning outcome suggests that the psychology department excels in the instruction of communication concepts. Because communication is also a Student Learning Outcome, the psychology discipline is a contributor to the skills that are integral to transfer students’ upper division success and coursework completion.

Further Action:

Further Action Unnecessary

Describe the action plan:

It has been demonstrated that students are benefiting from the communication instruction that is provided by the psychology department. Therefore, no action will be taken to modify the communication component of the psychology curriculum this year.