

## Core Curriculum Annual Assessment

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| Year                                    | 2022-23   |
| Course number and Name:                 | PSYC 2317   |
| Component area:                         | Communication, Critical Thinking, Empirical & Quantitative Skills |
| Number of sections offered:             | 8   |
| Number of students enrolled:            | 347   |
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### Summary of Continuous Improvement Efforts since Last Report

*Provide a brief description of how assessment results have been used for core course improvement. Point to a specific example of how an assessment provided the department with data it could use for improvement and what that improvement was, if possible, also show evidence of the improvement. You may look at data from the two previous academic years to support this case.*

Respond here:

#### What the Prior Review Told Us

For the prior two review periods, the Psychology department used the same benchmark for each of the component areas in the PSYC 2317 assessment. That benchmark was 50% of students obtain an average score of at least 3 out of 4 across all rubric measures pertaining to each component area. In the prior review period, students only just met the benchmark for 2 of the 3 component areas (Critical Thinking, Empirical & Quantitative Skills).

#### What We Planned to do

In response to these results, the Psychology department held a workshop to: 1) standardize grading procedures across all faculty teaching PSYC 2317, 2) develop clearer questions so that students better understood what the assessment asked them to do, and 3) provide more course assignments that require students to practice component area skills prior to the assessment project.

#### The Results of Our Interventions

These interventions improved performance on Empirical & Quantitative Skills component area from 52.1% to 69.9% meeting the benchmark. The interventions did not affect performance on the Critical Thinking component area. In the current review cycle 50.7% of students met the benchmark (versus 50.9% previously).

#### What we will do Next

Based on the 22-23 review cycle results, we need to make changes in the course that will improve performance on the Critical Thinking component area. Specifically, we need to help students better understand the difference between “statistically significant” and inferring causality; get them to show all their

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calculations; and better explain the logic behind choosing among the various inferential tests they learn about in the course. Adding assignments that have them practice these exact skills should improve performance on the next review.

Given that students generally performed well on the Communication and the Empirical & Quantitative Skills component areas, we will raise the benchmarks for those to 60%.

### Course highlights Since Last Report

*Identify and briefly discuss any changes made to the course since the last report.*

Respond here: As mentioned above, the assessment project was further clarified for students and assignments utilizing weak component areas were added to the course.

**Table 1. Assessment Results and Analysis for Current Cycle**

| Stage 1: PLAN  |   |   | STAGE 2: DO  |  | Stage 3: STUDY   |  |
|--|---|---|--|--|--|--|
| General Education Competencies Addressed in this Course: | Assessment Method(s) – e.g. pre/post tests, embedded questions, portfolio evaluation, rubric-scored essay; list only activities for which you are reporting assessment data | Proficiency – e.g. the proficient student will correctly answer 5 out of the 6 embedded questions on the final exam | Benchmark – e.g. 80% of students taking the final exam will correctly answer 5 of the 6 embedded questions on the final exam | Results of course assessment(s)  | Analysis of results – e.g. strengths and weaknesses<br>What does this data tell you? How will you use this data? How were data from the last cycle used to make changes during this cycle, and what were the results of those changes? | Recommendations for Course based on assessment   |
| Communication (required)                                 | <b>Assessment Method</b><br><br>The assessment instrument is a scenario-based   | <b>Proficiency</b><br><br>A score of 3-acceptable or 4-exemplary on a 4-point scale for the                         | <b>Benchmark</b><br><br>50% of students will receive a score of 3 or higher on a 4 points scale for                          | <b>Results of course assessment(s)</b><br><br>90.5% of students achieved a score of 3 or higher on a | <b>Analysis of results</b><br><br><u>Previously</u> , 70.2% of students receive a score of 3 or higher on a 4  | <b>Recommendations for Course based on assessment</b><br><br>Given that the benchmark of 50% |

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|                              | data analysis project that requires students to choose/defend statistical selection, perform appropriate computations and statistic analyses, graph summary results, and interpret/ explain statistical results using an appropriate vocabulary. | communication component. Score is averaged across three communication measures (syntax/mechanics , context/purpose, content development).<br><br>1= Poor<br>2=Marginal<br>3=Acceptable<br>4=Exemplary   | the average on the three questions related to communication measures (syntax/mechanics , context/purpose, content development).  | 4 points scale for the average on the three questions related to communication measures (syntax/mechanics , context/purpose, content development).   | points scale for the average on the three questions related to communication measures (syntax/mechanics , context/purpose, content development).   | was exceeded in previous assessment cycle, recommendation is to raise the benchmark to at least 60%.  |
| Critical Thinking (required) | <b>Assessment Method</b><br><br>The assessment instrument is a scenario-based data analysis project that requires students to choose/defend statistical selection, perform appropriate   | <b>Proficiency</b><br><br>A score of 3- acceptable or 4- exemplary on a 4- point scale for the critical thinking component. Score is averaged across three critical thinking measures (explanation of issues, influence of context and assumptions, | <b>Benchmark</b><br><br>50% of students will receive a score of 3 or higher on a 4 points scale for the average on the three questions related to critical thinking measures (explanation of issues, influence of context and assumptions, | <b>Results of course assessment(s)</b><br><br>50.7% of students received a score of 3 or higher on a 4 points scale for the average on the three questions related to critical thinking measures (explanation of issues, influence of context and assumptions, | <b>Analysis of results</b><br><br><u>Previously</u> , 50.9% of students received a score of 3 or higher on a 4 points scale for the average on the three questions related to critical thinking measures (explanation of issues, influence of context and assumptions, | <b>Recommendations for Course based on assessment</b><br><br>While the target was (just barely) met, performance on the three measures for critical thinking were NOT equal. In particular, the measure for context and assumptions was |

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|   | computations and statistical analyses, graph summary results, and interpret/explain statistical results using an appropriate vocabulary.  | conclusions & outcomes).<br><br>1= Poor<br>2=Marginal<br>3=Acceptable<br>4=Exemplary   | conclusions & outcomes).  | conclusions & outcomes).  | conclusions & outcomes).<br><br><u>Changes from previous cycles:</u><br>While faculty teaching this course did meet briefly in the past to discuss the critical assessment items, it is clear additional focus in this area is needed.                                  | consistently lower than the other two measures. To improve student performance on this measure faculty who teach this course will meet for a workshop that will focus on understanding the weaknesses seen across all the course sections and formulating a written action plan to address these weaknesses. |
| <b>Select One:</b><br>_X_ Empirical & Quantitative Skills<br>___ Teamwork<br>___ Social responsibility<br>___ Personal Responsibility | <b>Assessment Method</b><br><br>The assessment instrument is a scenario-based data analysis project that requires students to choose/defend statistical selection, perform appropriate computations | <b>Proficiency</b><br><br>A score of 3-acceptable or 4-exemplary on a 4-point scale for the empirical & quantitative skills dimension. Score is averaged across three measures (representation, calculation, and applications & analysis). | <b>Benchmark</b><br><br>50% of students will receive a score of 3 or higher on a 4 points scale for the average on the three questions related to empirical & quantitative skills (communication measures (representation, calculation, and | <b>Results of course assessment(s)</b><br><br>69.9% of students received a score of 3 or higher on a 4 points scale for the average on the three questions related to empirical & quantitative skills (communication measures (representation, calculation, and | <b>Analysis of results</b><br><br><u>Previously</u> , 52.1% of students received a score of 3 or higher on a 4 points scale for the average on the three questions related to empirical & quantitative skills (communication measures (representation, calculation, and | <b>Recommendations for Course based on assessment</b><br><br>While the benchmark was met, scores on one of the three measures for the empirical and quantitative dimension falls consistently below scores on the other two measures. Based  |

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|  | and statistical analyses, graph summary results, and interpret/explain statistical results using an appropriate vocabulary. | 1= Poor<br>2=Marginal<br>3=Acceptable<br>4=Exemplary | applications & analysis). | applications & analysis). | applications & analysis).<br><br><u>Changes from previous cycles:</u><br>While faculty teaching this course did meet briefly in the past to discuss the empirical/quantitative items, it is clear additional focus in this area is needed. | on informal discussions among faculty members and conversations with students it 'appears' that too many students do not understand the level of performance expected on this dimension. We proposed to create additional instructions to be added to the project to ensure consistency across course sections and instructors. These instructions would explicitly clarify the performance expectations and, hopefully, provide an actionable path for student improvement. |
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### OBSERVATIONS FROM THE ASSESSMENT

- 1) The measure that is lowest for Empirical/Quantitative is related to "showing all of the formulas" and "showing your work." These omissions are most frequently seen for both the descriptive statistics (question #1) – with the range seeming to be the most 'completely ignored' statistic. Too many

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students, though not as many as seen with the inferential statistic, also leave off some of the formulas used for the t-test. Seems that this could be addressed by making the instructions clearer (as Dr. Shelton does with his written instructions added to the project).

- 2) The measure that is lowest for Critical Thinking is the related to the students' defense/explanation for the appropriate inferential statistic (inferential t-test). It is the same sort of 'lack of awareness' that we saw in some of the graduate students when they failed to recognize the importance of statistical assumption and the type of research question (descriptive, correlational, inferential).
- 3) Students are great about using the phrase "statistically significant difference", "real difference" or something like this. What they are not so great about is stating, in a simple manner, what this means. They too often leave off any statement about the treatment "causing" the difference between the groups or about ruling out "sampling error or chance" as their chosen explanation for the difference between the groups.

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Table 2. Continuous Improvement Results Since Last Report

| STAGE 4: ACT   |  |   |
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| <b>Actions/Goals based on data results</b><br><i>*copy last cycles actions/goals and report on progress toward continuous improvement on those here</i>  | <b>Status</b><br><i>C=Complete</i><br><i>P=Progressing</i><br><i>N=No action taken</i> | <b>Discussion of status</b><br><i>If C, describe efforts that led to accomplishment of actions/goals</i><br><i>If P, provide update on progress made toward accomplishing actions/goals and what tasks remain</i><br><i>If N, discuss why action toward accomplishing actions/goals has been delayed and what work will be initiated toward accomplishment.</i> |
| <p>In previous cycles, we held a workshop for all course instructors to address project-related-content delivery and standardization of project instruction. This approach appears to have improved performance on the Empirical &amp; Quantitative Skills. Performance on Critical Thinking was not affected.</p> | <p>C</p>   | <p>Faculty developed a more specific rubric for grading the assessment. Each faculty member also added specific instructions and explanations to the assessment materials so that students better understood what they were asked to do.</p>  |