



**2015-2016 CSCI EETF Assessment Year End Report, June, 2016**

Program Name(s)	EETF Faculty Rep	Department Chair
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**A. Program Student Learning Outcomes**

Current:

1. Think scientifically and employ sound scientific methodology.
2. Speak and write clearly about the content and theory of the field of psychology.
3. Apply psychological principles and prepare for careers.

Draft Proposal for Semesters (not approved yet):

1. Identify key concepts, principles, and applications of psychology's content domains.
2. Apply scientific reasoning to interpret psychological phenomena and to design and conduct basic psychological research.
3. Evaluate the ethicality of individual studies at each stage of the scientific process.
4. Demonstrate effective written communication skills.
5. Understand career options within psychology.

**B. Program Student Learning Outcome(s) Assessed**

We used an department-developed assessment tool to evaluate the 2nd of our current PLOs. It is also appropriate for evaluating the current version of the proposed 2nd PLO for our semester-based programs.

**C. Summary of Assessment Process**

The assessment is attached. The instructor of a Spring 2016 section of a Psychology lab course (PSYC 480x) asked enrolled students to complete the assessment. We evaluated the responses using the scoring sheet.

In the past, the department has conducted this assessment as a pre-post test, conducting it in our introductory research methods classes (PSYC 2020) in addition to the lab. This year, we were unable to conduct the assessment in 2020, so this year was only a "post" test.

**D. Summary of Assessment Results**

Only four students submitted the assessment, and one student failed to respond to three questions. The average of all the scores was 3.34 with a standard deviation across questions of .64. Of the 10 questions, 8 had average scores higher than 3.

Only two questions had average responses less than one standard deviation below the mean: question 1 ( $M = 2$ ) and question 5 ( $M = 2.5$ ). These questions required students to write a correctly formatted APA-style reference and describe the variables used in the study, respectively. Oddly, these are among the simplest of the questions in the assessment, requiring technical knowledge but less critical thinking than the other questions. However, it suggests that instructors should emphasize these basic topics in PSYC 3100: Experimental Psychology and review them in the labs.

More importantly, we need to create a more user-friendly assessment for this PLO. The current tool is thorough and requires students to think and write clearly, but it is time consuming to administer. Instructors have a difficult time adding it to classes, and students have little incentive to put so much time into an optional activity.

#### **E. Suggestions and Recommendations for the CSCI EETF in the Future**

Continue to discuss incentives for faculty and student participation in assessment.

Example from another program:

**D. Summary of Assessment Results**

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## **Pre-Post Test Assessment**

This assess a number of detailed specific skills including such things as conducting a suitable literature search, formulating a hypothesis, identifying and critiquing research designs and statistical procedures, etc. These learning outcomes are based on the American Psychological Association's "Guidelines for Learning Outcomes for the Undergraduate Psychology Major." Students summarize a research paper from a peer-reviewed journal being careful to answer specific questions (see below). Student performance is then assessed for each item using a five point scale. This assignment is administered during our introductory methods course in our curriculum (Psyc 2020) and also during one of our senior laboratory capstone courses (Psyc 480X). In between those two courses, all students would have taken our major experimental methods course (Psyc 3100). This provides feedback on the effect of the Department's strategy of providing students with intensive hands-on research experience in classes with a small student-faculty ratio substantially on students' essential scientific thinking and methodological skills.

10 Specific Areas Assessed in Psyc 2020 and Psyc 480X.

1. APA Reference Format
2. Identify Hypothesis
3. Identify Researcher's Rationale
4. Identify Data Collection Methods/Study Design
5. Identify All Important Variables
6. Reliability & Validity of All Measures
7. Identify Data Analysis Techniques (Statistics)
8. Appropriateness of Data Analysis Results to Hypothesis
9. Critique of Entire Research Report
10. Conduct Literature Search

## **PURPOSE**

The purpose of this activity is to assess some of your research methodological skills. The faculty members in the psychology department and CSUEB are ONLY interested in how much you know and are able to use these skills -- so we can better tailor our teaching depending on where there is the most need. Therefore, your responses/performance on this activity will NOT be part of your grade. After I collect your completed responses, I will analyze the data. The ONLY things faculty members will see are class summaries of responses to the items and class performance -- for the class as a whole (for example, averages or percentages).

## **INSTRUCTIONS**

Complete this assignment by first writing a summary and critique of the article by Choi and Menghrajani (2011) – with a focus on their Study 1 -- by providing answers to all of the following questions in your answer sheet (write the item number followed by your answer for each item). Don't forget to write your name in the answer sheet. Feel free to read and reread the article as many times as you want.

1. What is the full reference for the article? Write the reference in American Psychological Association reference format. (Just for this activity, use underlines instead of italics for places you need to use italics.)
2. What is the researcher's hypothesis?
3. What is the rationale for the researcher's hypothesis? Put another way, this question asks you to explain why the researchers chose to study this particular hypothesis.

## **ANSWER ITEMS 4~9 BASED ON YOUR READING OF THEIR STUDY 1 AS REPORTED IN THEIR ARTICLE (not their Study 2 or 3).**

4. How were the research participants/subjects obtained for this study (sampling procedures)?
5. Identify the important variables in this study? Then, identify each one as measured, manipulated, and/or controlled.
6. What can you say about the reliability and validity of each measurement tool used in this study?
7. How are the data presented, summarized, and analyzed? Put another way, report on what graphs were used, what summary statistics were used, and what inferential statistics were used, etc.
8. What do the results of the research say about the hypothesis? Put another way, do the results support the hypothesis, refute the hypothesis, or suggest the hypothesis needs to be revised, etc.?
9. What is your critical evaluation of the study? For example: is the research method appropriate or inappropriate to test the hypothesis; are the conclusions justified on the basis of the results; are the conclusions appropriate given the sampling procedures; what are the strengths and weaknesses of the study?
10. If you were to use the library to find three other peer-reviewed journal articles reporting research on the topic of the article you just reviewed, how would you do it? Please list and discuss the steps you would take.

## Scoring Pre-Post Test Student Assessment Assignment

Is reference complete and in APA format?

0	1	2	3	4
NOT AT ALL		PARTALLY CORRECT		CORRECT

Correctly identify the research hypothesis.

0	1	2	3	4
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Correctly describe the rationale for the hypothesis.

0	1	2	3	4
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### **THE FOLLOWING FIVE ITEMS FOCUS ON STUDY 1 REPORTED IN THE ARTICLE.**

Correctly describe the sampling procedure in Study 1.

0	1	2	3	4
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Correctly identify the important variables in Study 1.

0	1	2	3	4
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Correctly discussed the reliability and validity of the measures in Study 1.

0	1	2	3	4
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Identify procedures for analyzing collected data in Study 1.

0	1	2	3	4
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Are appropriate conclusions drawn from the data in Study 1?

0	1	2	3	4
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Critical evaluation of Study 1.

0	1	2	3	4
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Knows the steps for finding related articles.

0	1	2	3	4
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