

**2015-2016 Yearly Assessment Report Template
College of Arts and Sciences (CAS)**

NOTES:

- Yearly Assessment Reports for all CAS Majors and Graduate Programs are due by 07/01/16; early submissions are welcome.
- Reports, as well as two Curriculum Maps (one that maps Program Learning Outcomes to Institutional Learning Outcomes and one that maps Courses to Program Learning Outcomes) should be submitted as three separate documents to the Program Assistant; he/she will upload these three documents to Gnosis.
- This template is intended to be an outline for the Yearly Assessment Report; it is in word format so that faculty can modify and delete as needed, and use whatever space is necessary to respond to the questions

1. Identifying Information

Department: Psychology

Program Type: Major

College Division: Social Sciences

Name/Title/Email Address of Submitter: Marisa Knight/ Associate Professor and Chair/
mrknight@usfca.edu

2. Mission Statement:

The Bachelor of Arts in Psychology provides a foundation for traditional and non-traditional students who wish to become psychologists. It also prepares students to become lifelong learners by delivering analytical, quantitative, and problem-solving skills that lead to self-awareness, critical social/cultural engagement as well as employment in a variety of work settings.

Has this statement been revised in the last few years?

This statement has been revised. The department voted unanimously to approve it on March 4th, 2016.

3. (Optional) Program Goals:

1. To provide a curriculum that allows students to attain the skills and knowledge necessary for success in graduate study in psychology and related fields, as well as careers in various professions.
2. To foster an appreciation of Psychology as a scientific discipline by stimulating our students to respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes.
3. To provide a curriculum that allows students to deeply examine the biological, cognitive, developmental, social, and cultural aspects of behavior and psychological processes.
4. To foster an appreciation of how psychological principles can be applied to enhance understanding of the whole person, as an individual and as a member of a community, society, and culture.
5. To create opportunities for students to engage collaboratively with faculty in creative scholarly work that can add to Psychology's body of knowledge and that can foster personal, academic and professional growth.

Have these goals been revised in the last few years?

Our goals have undergone substantial revision in response to the feedback received on the assessment proposal submitted in the Fall of 2015. In response to the suggestion that our previous program plan had too many goals, we currently have 5 Department Goals (down from the original 11). In addition, the language and content of these goals have been changed to: a) provide a better match with the Guidelines for Program Level Student Learning Assurance published by the Office of Student Learning Assurance (2012-2015), and b) to provide a better match with USF's Institutional Learning Outcomes (ILOs). The department voted unanimously to approve our goals on March 4th, 2016.

4. Program Learning Outcomes (PLOs)

1. Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
2. Students will respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes.
3. Students will understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.

4. Students will apply psychological theory, methodology and findings to develop a greater understanding of the whole person, as an individual and as a member of a large community, society, and culture.

5. Students will be able to communicate effectively in a variety of formats.

6. Students will recognize, understand, and respect the complexity of sociocultural and international diversity.

Have these PLOs been revised in the last few years?

Our PLOs have undergone major revision in response to the feedback received on the assessment proposal submitted in the Fall of 2015. In response to the suggestion that our previous program plan had too many PLOs, we currently have 6 PLOs (down from the original 41 PLOs). In addition, the language and content of these goals have been revised in an attempt to put them in accordance with the Guidelines for Program Level Student Learning Assurance (2012-2015), to provide a better match with USF's ILOs, and to more closely align with the recommendations of the American Psychological Association (APA), which released new guidelines for undergraduate education in 2013. These new PLOs still await final approval by the department. Considering the scope of these changes, we consider the development of these PLOs to be a reasonably good start, but we will need time in the beginning of the Fall 2016 semester to discuss and/or revise them before they are finally approved.

5. Brief Summary of Most Recent Assessment Plan

We submitted our Assessment Proposal in the Fall of 2015 to the Office on Academic Effectiveness. In response to the feedback received, our goals and PLOs underwent substantial revision (please see above). We chose to address PLOs 2 and 3. We assessed these objectives using two direct measures of performance: 1) a series of story problems on the comprehensive final exam administered in five sections of Statistics (2 sections in the Fall of 2015 and 3 sections in the Spring of 2016) and 2) with a Research Design laboratory activity that includes descriptions of research for which students must identify various elements of research design in order to match the most appropriate statistic to each study. The Research Design assessment was piloted in one section of Research Design taught by a full time faculty member in the Spring of 2016.

In addition, two new Curriculum Maps were developed (one that maps Program Learning Outcomes to Institutional Learning Outcomes and one that maps Courses to Program Learning Outcomes).

Finally, we started to develop a Canvas site for our Department Assessment activities where all full-time faculty members will have access to a continuously updated database of assessment-related materials.

6. Academic Program Review

Date of most recent Academic Program Review's External Reviewer Visit:
April 6th – 8th, 2011

Date of most recent Action Plan Meeting:
To the best of my knowledge, there are no existing records for an Action Plan meeting in our department.

Brief Summary of the most recent Action Plan:
N/A

7. Methods

What did you do with regard to assessment of your program/department in 2015-2016?

Our department submitted an assessment proposal in December of 2015. The proposal outlined our plans for data collection and assessment in Spring 2016. We used our Program Assessment Plan, most recently revised in June of 2008 as a basis for our approach. This plan contained 11 goals and 41 PLOs. Our plan was to assess 3 major department goals, each of which had several PLOs. We planned to focus our assessment on the following foundation courses: General Psychology, Biological Psychology, Statistics, and Research Design. To carry out our assessment, we proposed the use of embedded items we had developed for this purpose that would be administered as a part of midterm and final exams. A very similar assessment plan was carried out in the 2008-2009 AY, which is the most recent formal assessment activity our department has records for.

We received feedback at the start of the Spring 2016 semester that our PLOs and Goals could benefit from revision in order to reduce their number and to make them more concise. We were further urged to provide more information on the development and selection of embedded items, how rubrics would be used to evaluate performance, and how to ensure reliability. Finally, it was suggested that our plan was too ambitious for one semester and to scale back to one PLO in one or two courses.

In response to the feedback from the Office on Academic Effectiveness, our goals and PLOs underwent substantial revision (please see above). We chose to address PLOs 2 and 3. We assessed these objectives using two direct measures of performance: 1) a series of story problems on the comprehensive final exam administered in five sections of Statistics (2 sections in the Fall of 2015 and 3 sections in the Spring of 2016) and 2) with a Research Design laboratory activity that includes descriptions of research for which students must identify various elements of research design in order to match the most appropriate statistic to each study. The Research Design assessment was carried out in one section of this course taught by a full time faculty member in the Spring of 2016.

In addition, two new Curriculum Maps were developed (one that maps Program Learning Outcomes to Institutional Learning Outcomes and one that maps Courses to Program Learning Outcomes).

Finally, we started to develop a Canvas site for our Department Assessment activities where all full-time faculty members will have access to a continuously updated database of assessment-related materials.

What were your questions?

Question 1: To what degree do our students develop, retain and apply critical thinking and a scientific approach to understanding human behavior and psychological processes?

Question 2: To what degree do our students understand and apply basic research methods in psychology?

We were further interested in attempting to use our data to better understand the degree to which conceptual knowledge of basic research methods and skills are retained, improved and generalized as students move from a lower level foundation course to the next foundation course in our sequence. In this case, we were interested in the transition from PSYC 260: Psychological Statistics to PSYC 265: Research Design.

How are these questions related to your most recent Academic Program Review and/or Action Plan?

The assessment plan we submitted earlier in Fall 2015 was directly related to the findings and suggestions in the most recent Academic Assessment Plan report submitted for the 2008-2009 AY. This plan was based on the use of embedded items and called for review of the items we had generated for the foundation courses, to extend the use of these items across multiple sections of the same course and to compare performance outcomes from the time 1 and time 2 measures to evaluate the reliability of our measures. In light of the feedback we received from the Office of Academic Assessment at the start of the Spring 2016 semester, and the major changes to our goals and PLOs, we determined that our embedded items approach would require more time for organizing and executing than what we had available to collect meaningful data. As a result, we decided to move in a different direction with our assessment plans. We still plan on using embedded items as one of several other direct assessment measures, but we are currently in the process of revising these items to better reflect our newly revised PLOs.

What PLOs are these questions related to?

The questions for the current assessment are related to PLOs 2 and 3.

What direct (most important) and/or indirect methods did you employ?

Methods:

PSYC 260: Statistics

We tracked performance on the comprehensive final exams administered at the end of each semester in 5 separate sections of Statistics (2 sections in Fall 2015, 3 Sections in Spring 2016). Two full-time faculty members taught these sections. Faculty reviewed and agreed upon curriculum and test content to verify test questions were appropriate to address PLOs 2 and 3. All students were given 1.5 hours to complete the final exam.

Students were presented with 13 story problems. For each scenario described in a given story problem, students were asked to select the appropriate inferential statistical test that would allow the researcher to test a hypothesis. Accurate solutions to each complex problem require that students come to well-reasoned conclusions, testing them against relevant criteria and standards used in the scientific approach and hypothesis testing. These are hallmarks of critical thinking. In order to select the correct inferential test, students are required to identify various elements of the problem as described in a real-world scenario and map them to corresponding elements of research design. For example, students need to accurately identify the nature of the variables measured (independent/dependent), whether the design is between- or within-subjects, and the specific design type (correlation, repeated measures, independent groups, etc.). The final step is to use this information to select the appropriate inferential analysis to be carried out. For each problem, we calculated the percentage of students who answered correctly. The percentages are broken down by section and by the inferential test the problem represented in Table 1 below.

PSYC 265: Research Design

We tracked performance during one lab session at the end of the Spring 2016 semester in 1 section of Research Design taught by one full-time faculty member. This was the a pilot test of a new measure we had adopted and modified specifically to address PLOs 2 and 3 and to correspond with and extend our performance assessment in Statistics. Instructions and a representative example problem from this activity are provided in Appendix A. Faculty reviewed and agreed upon curriculum and activity content to verify that this problem set was appropriate to address PLOs 2 and 3. All students were given 1.5 hours to complete this activity.

In this exercise, students were presented with 8 story problems. For each scenario described, similar to the problems presented on the Statistics final exam, students were asked to select the appropriate inferential statistical test that would allow the researcher to test the hypothesis proposed. Because solutions to each complex problem require multiple types of conceptual knowledge and skills, we broke these problems down into multiple

components and tracked student performance on each component separately (this information was not available on the Statistics final exam questions). The breakdown we used in the Research Design activity would allow us to better account for variability in performance outcomes by isolating the particular skills and concepts students were mastering and/or struggling with.

For each problem, we tracked student performance on the following concepts/skills:

- a) the nature of the variables (independent, dependent, quasi-independent)
- b) whether the design is between- or within-subjects
- c) the specific design type (correlation, repeated measures, etc.)
- d) the appropriate inferential analysis to be carried out

For each problem, we calculated the percentage of students who answered correctly. These percentages are broken down by component (a – d) and by the inferential test the problem represented in Table 2 below.

Rubric

We developed the following rubric to assist us in the evaluation of the extent to which PLOs 2 and 3 were being achieved:

High Priority for Department Discussion	Average	Good	Excellent
average accuracy below 72%	average accuracy 72% or above	average accuracy 80% or above	average accuracy 90% or above

8. Results

What were the direct data results?

Here is a table of results for Statistics:
Table 1.

	F2015_01	F2015_02	S2016_01	S2016_02	S2016_03	Cum. Average
Parametric	N = 31	N=28	N=28	N=23	N=29	
Single Sample t	100.00	32.14	78.57	39.13	28.57	55.68
Independent t	90.32	89.29	50.00	91.30	57.14	75.61
Dependent t	90.32		75.00			82.66
One Way ANOVA	85.48	91.67		85.51	80.95	85.90
Repeated Measures ANOVA	100.00	96.43	82.14	91.30	92.86	92.55
Two Way ANOVA	96.77		42.86			69.82
Pearson's r		92.86	67.86	89.13	89.29	84.78
Nonparametric						
Chi Squared	66.13	89.29	55.36	86.96	83.93	76.33
Mann Whitney U	91.94	73.22	82.14	67.39	78.57	78.65
Spearman's Rho	96.77	83.93		84.78	91.07	89.14
Cum. Average	90.86	81.10	66.74	79.44	75.30	

Data collected in Fall of 2015 and Spring of 2016 came from 2 Full Time (FT) faculty members. Section 01, in the Fall and Spring, was taught by the same FT Faculty member. The numbers in the cells represent the percentage of students who answered correctly in identifying the appropriate statistical test. The same faculty member taught Fall and Spring Sections 02 and 03. Blank cells indicate that this item was not tested on the final exam.

Here is a table of results for Research Design:

Table 2.

	Ident_IV	Ident_DV	BS/WS	DesignType	SelectTest	Cum Avg.
TEST TYPE	N=18	N=18	N=18	N=18	N=18	
Independent t-test	100	100	100	100	94.44	98.89
Dependent t-test	100	100	100	100	88.89	98.33
One-way ANOVA	100	100	100	94.44	94.44	97.78
Repeated measures ANOVA	98.15	94.44	94.44	94.44	77.78	94.81
Two-way ANOVA (2x2 design)	100	100	94.44	88.89	88.89	93.15
Two-way ANOVA (2x3 design)	94.44	100	94.44	72.22	77.78	91.11
Pearson's r	90.74	100	94.44	100	88.89	91.30
Chi-squared	85.19	94.44	88.89	66.67	77.78	88.70
CUMULATIVE AVERAGE	96.065	98.61	95.24	89.5825	86.11125	

Data generated from a single section of Research Design in Spring of 2016

What surprised you?

In the Statistics Data, the degree of variability in performance from semester to semester and also across the different inferential tests was somewhat surprising. Cumulative average accuracy rates fluctuated more than I would have expected. The data from the breakdown across semesters suggests that interpretations and/or conclusions based on

collapsed averages across all tests from a single semester are limited and must be interpreted with great caution and an appreciation for their tentative nature. These results will allow us to better ignore irrelevant details and see the bigger picture as we evaluate performance on each inferential test across multiple semesters. Ultimately, this method of organizing the data may help us to better isolate where things are going well and where there might be need for reflection, change or improvement.

In the Research Design data, the consistently excellent performance scores came as a surprise. However, this reflects only one section of RD as this was a pilot measure we were testing. Our goal moving forward is to develop a process whereby this measure can be consistently implemented across multiple sections of RD in the same semester. It will be interesting to see how the cumulative averages compare across sections and across semesters.

What aligned with your expectations?

Most of the cumulative averages are in the good to excellent range. There are also some performance averages that indicate the need for further reflection and room for improvement.

What do you understand these results to mean? What are the implications of the data?

Our purpose was to use the data we collected to address the following:

Question 1: To what degree do our students develop, retain and apply critical thinking and a scientific approach to understanding human behavior and psychological processes?

Question 2: To what degree do our students understand and apply basic research methods in psychology?

We were further interested in attempting to use our data to better understand the degree to which conceptual knowledge of basic research methods and skills are retained, improved and generalized as students move from a lower level foundation course to the next foundation course in our sequence. In this case, we were interested in the transition from PSYC 260: Psychological Statistics to PSYC 265: Research Design.

We used the following rubric to evaluate these questions:

High Priority for Department Discussion	Average	Good	Excellent
average accuracy below 72%	average accuracy 72% or above	average accuracy 80% or above	average accuracy 90% or above

Statistics Summary

The cumulative averages for each test show that performance on the following tests were in the “High Priority for Department Discussion” range: Single Sample t-test, Two Way ANOVA

The cumulative averages for each test show that performance on the following tests were in the “Average” range: Independent t-test, Chi-Squared, Mann-Whitney U

The cumulative averages for each test show that performance on the following tests were in the “Good” range: Dependent, One Way ANOVA, Pearson’s r, Spearman’s Rho

The cumulative averages for each test show that performance on the following tests were in the “Excellent” range: Repeated Measures ANOVA

Cumulative average performance from semester to semester on the measure as a whole (% of students answering correctly on all 13 items) ranged from “High Priority for Department Discussion” to “Excellent”.

With respect to questions 1 and 2, there are several inferential tests on which students are achieving satisfactory performance. There are also some inferential tests on which student performance suggests that some reflection and possible changes to instructional techniques may be worth consideration. We need a chance to review these findings as a department and to determine by consensus what we would consider “successful” performance. We also need to discuss and come to some agreement regarding how we should interpret the variable overall performance of students across semesters. We will use these results to help guide our decision making regarding: a) whether this particular measure or certain aspects of it should be revised and, given a satisfactory performance measure, b) changes to our curriculum and/or instructional techniques that will consistently move performance into satisfactory ranges of achievement for PLOs 2 and 3.

Research Design Summary

The cumulative averages show that performance was above the range for “High Priority for Department Discussion” and “Average” for all test items.

The cumulative averages for each test show performance on the following tests were in the “Good” range: Chi-Square

The cumulative averages show that performance on the following tests were in the “Excellent” range: Independent Samples t-test, Dependent Samples t-test, Repeated Measure ANOVA, Two Way ANOVA, Pearson’s r

The cumulative averages for each inferential test show performance on the following components of each problem were in the “Good” range: Identifying Design Type and Selecting Appropriate Statistical Test

The cumulative averages for each inferential test show performance on the following components of each problem were in the “Excellent” range: Identifying Independent Variables, Identifying Dependent Variables, Identifying Within- and Between-Subjects Designs

With respect to questions 1 and 2, our results suggest that students are achieving satisfactory performance on all inferential problems. The breakdown by skill/component shows some areas where improvements can be made (e.g., identifying design type and selecting tests for a very few select tests). Overall, the results suggest that students are able to retain and apply critical thinking and a scientific approach to understanding human behavior and psychological processes as operationalized in this measure. In addition, the data suggest that student show a satisfactory understanding and ability to apply basic research methods in Psychology as operationalized in this measure.

With respect to the degree to which conceptual knowledge of basic research methods and skills are retained, improved and generalized as students move from Statistics to Research Design, our data suggest not only retention, but also substantial gains on the various performance dimensions operationalized in this activity. Nevertheless, this conclusion should be regarded as tentative and limited given the fact that it comes from only one section of Research Design. If our department decides that this is a satisfactory performance measure with no need for revision, our plan is to use it in multiple Research Design sections and across different instructors. Examination of this larger data set will allow us to better gauge the reliability of the results obtained this spring and may also provide further insight into strengths and areas where we can make improvements.

9. Closing the Loop

What might you do as a result of these assessment results? What curricular or programmatic changes might you implement?

Possible Closing(s) of the Loop(s) (pick ≥ 1 and *briefly describe*):

As of now, the department chair is the only person who has reviewed these results. No course or program change proposals are planned at this time. We need a chance to review these findings as a department and to determine by consensus how we will define “successful” performance (or to use recommendations and guidelines communicated by the Office of Academic Effectiveness). We will use these results to help guide our decision making about how we will move toward achieving our goals. Key in this discussion will be whether we can agree that these current performance measures are working for us and whether we wish to continue using them as is, or if there are some changes we would like to implement.

We will also use our experience with this round of assessment to form a more complete set of strategies and measures to assess our other PLOs.

Have you or will you submit any course or program change proposals as a result of these results?

We will be discussing these results during our first fall semester faculty meeting and during our larger all-day department strategic planning meeting. Should these discussions prompt any course or program changes, we will notify the Office of Academic Effectiveness.

Thank you for your time and willingness to review our Assessment Report for the Fall 2015/Spring 2016 Academic Year. We welcome and look forward to your feedback and suggestions. If any additional information is needed from our department, please feel free to let me know.

Sincerely,

Marisa Knight

Appendix A

Laboratory 8:
Determining Design and Statistical Analysis

For each of the studies, please indicate the following:

- | | |
|---|--|
| 1. Independent variable(s) (IV). True/quasi? | 5. The level of measurement of the DV. |
| 2. Is there more than 1 IV? | 6. Between- (BS) or within-subjects (WS) design? |
| 3. The levels the IVs. | 7. What type of design is being used? |
| 4. Dependent variable (DV).
(for correlation, list all variables here) | 8. What is the appropriate statistic? |

**If a question isn't applicable to a particular design, please note that as well*

Study1: A team of cognitive psychologists conducted a study on the effects of sleep deprivation on short- term memory decay. Forty-eight subjects stayed in a lab for two days. Twenty-four of the subjects are randomly assigned to a condition in which they are not permitted to sleep during that period. The other twenty-four are allowed to sleep whenever they want. After 2 days, the subjects complete a task that involves reading a list of 20 words, then recalling as many words as possible.

1. _____ 5. _____

2. _____ 6. _____

3. _____ 7. _____

4. _____ 8. _____