Report on Student Outcome Assessment

Competence in the Discipline of Psychology, Inquiry and Analysis, & Competence in Thesis Work

Department of Psychology

Academic Year 2012-2013

July 1, 2013

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Office of Academic Program Assessment, Office of Academic Affairs
The 2012-2013 ANNUAL ASSESSMENT REPORT TEMPLATE

All annual assessment reports should be submitted by the academic unit (College/Department/Program) to the College Dean for review and onward transmittal to Academic Affairs. Reports are due in Academic Affairs no later than **July 1 each year** in electronic format.

Please directly answer the following questions and make sure the answers to each question are written in a way that is easy for the general public and for the students, faculty, staff, and administrators **to understand and to use**. To ensure that the various readers have enough information to **evaluate all parts of the report** -- the learning outcomes, the methods/data, the criteria/standards of performance, the interpretations, and the conclusions -- please make sure you provide explicit information including how you have selected your sample (e.g. students or their work) and how you have analyzed and interpreted the data. There is no specific length expectation, although conciseness should be the goal.

1. As a result of last year's assessment effort, have you implemented **any changes for your assessment including learning outcomes, assessment plan, assessment tools (methods, rubrics, curriculum map, or key assignment etc.), and/or the university baccalaureate learning goals?**
      a. If so, what are those changes? How did you implement those changes?
      b. How do you know if these changes have achieved the desired results?
      c. If no, why not?

2. As a result of last year's assessment effort, have you implemented **any other changes at the department, the college or the university, including advising, co-curriculum, budgeting and planning?**
      a. If so, what are those changes? How did you implement those changes?
      b. How do you know if these changes have achieved the desired results?
      c. If no, why not?

3. What **PROGRAM** (not course) learning outcome(s) have you assessed this academic year?

4. What method(s)/measure(s) have you used to collect the data?

5. What are the criteria and/or standards of performance for the program learning outcome?

6. What data have you collected? What are the results and findings, including the percentage of students who meet each standard?
      a.   In what areas are students doing well and achieving the expectations?
      b.   In what areas do students need improvement?

7. As a result of this year's assessment effort, do you anticipate or propose any changes for your program (e.g. structures, content, or learning outcomes)?
      a. If so, what changes do you anticipate? How do you plan to implement those changes?
      b. How do you know if these changes will achieve the desired results?

8. Which program learning outcome(s) do you plan to assess next year? How?

1. As a result of last year's assessment effort, have you implemented any changes for your assessment including learning outcomes, assessment plan, assessment tools (methods, rubrics, curriculum map, or key assignment etc.), and/or the university baccalaureate learning goals?
      a. If so, what are those changes? How did you implement those changes?
      b. How do you know if these changes have achieved the desired results?
      c. If no, why not?

As a result of last year's assessment effort, the Psychology Department has completely revised its assessment plan to incorporate more explicitly the Baccalaureate Learning Goals (BLG), the Association of American Colleges and Universities' (AAC&U) VALUE rubrics, and feedback from the Office of Academic Program Assessment (OAPA) regarding the IPP report submitted last academic year (2011-2012), which also served as last year's assessment report.

OAPA commended Psychology programs for the clarity of their learning outcomes, how well the learning outcomes aligned with the BLGs, the quality of assessment data collection and analysis (e.g., assessing theses using VALUE rubrics, assessing specific skills using pre-post surveys), and the use of assessment data to inform curricular decisions.

Moving forward, the OAPA recommends that the Psychology Department adopt program-level assessment methods (as opposed to course-level assessment methods), solicit information regarding the long-term effects of the learning outcomes on alumni surveys, consider developing separate alumni surveys for BA and MA alumni, establish benchmark levels of achievement for all programs, describe the norming process for VALUE rubric use in greater detail, and develop separate assessment plans for the certificate and minor programs.
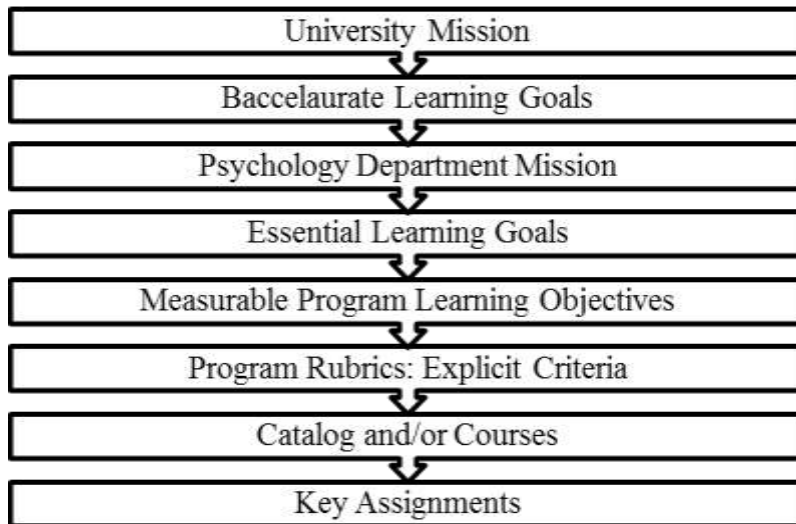
Based on their thorough review, the OAPA determined that the Psychology major program, the general MA program, and the I/O MA program were between the "emerging" and "developed" levels, according to WASC's "Rubric for Assessing the Quality of Academic Program Learning Outcomes." The Psychology minor and the ABA certificate are in the "initial" level, as separate assessment plans for either program had not yet been developed at the time of the IPP reports. The ABA MA program did not have data available for evaluation by the OAPA, and so was not ranked. However, data will be available for future reviews.

Based on the feedback provided above, the bulk of this year's assessment efforts have been aimed at developing a new 5-year assessment plan targeting program-level (rather than course-level) assessment methods, including developing separate assessment plans for the certificate and minor programs. The assessment plan development process is described in detail below.

2013-2018 Assessment Plan

Based on the feedback provided by the OAPA, descriptions from the WASC Rubric for Assessing the Quality of Academic Program Learning Outcomes, faculty discussion during the 2011 and 2012 summer retreats, and the WASC Educational Seminars Retreat on Student Learning and Assessment Level I, the Psychology Department has developed a new 5-year Assessment Plan, described in detail below and available in full in Appendix A.

WASC recommended following a specific set of criteria when developing program assessment, beginning with the university's mission and concluding with key assignments:

University Mission
Baccelaurate Learning Goals
Psychology Department Mission
Essential Learning Goals
Measurable Program Learning Objectives
Program Rubrics: Explicit Criteria
Catalog and/or Courses
Key Assignments

The Psychology Department has followed this recommendation. We began by reviewing the California State University, Sacramento's mission statement and the recently adopted the BLGs. Next, we revised our department's mission statement at the 2012 summer retreat (see Appendix A). Consistent with our mission and with the university BLGs, the department has adopted the following as our essential learning goals:

- *Competence in the discipline of Psychology.*
- *Knowledge of human cultures and the physical and natural world through study in Psychological science.*
- *Intellectual and practical skills, including: inquiry and analysis, critical, philosophical, and creative thinking, written and oral communication, quantitative literacy, information literacy, teamwork, and problem solving, practiced extensively across the curriculum, in the context of progressively more challenging problems, projects, and standards of performance.*
- *Personal and social responsibility, including: civic knowledge and engagement-- local and global, intercultural knowledge and competence, ethical reasoning and action, foundations and skills for lifelong learning anchored through active involvement with diverse communities and real-world challenges.*
- *Integrative learning, including: synthesis and advanced accomplishment across general and specialized studies.*

From the list of learning goals above, we have identified specific learning outcomes to assess for each program in Psychology over the next 5-years (described in detail below). In order to assess these learning outcomes in a manner consistent with the university mission, we have revised the AAC&U VALUE rubrics to be consistent with the discipline of Psychology (see Appendix B) and we have adopted these rubrics for use in course and program assessment. Furthermore, a sub-set of the learning outcomes that we will assess in Psychology over the next 5 years have been

identified as priorities for the university as well (critical thinking, quantitative literacy, and written communication).

Next, we created curriculum maps for each of our programs in order to identify courses in which specific learning goals have been introduced, developed and practiced with feedback, and mastered. For example, in the undergraduate major we expect that students will achieve learning outcomes at the level of introduction in lower division coursework, those outcomes will be developed in upper division course work, and students will demonstrate mastery at the level appropriate for graduation in capstone courses. At the next department retreat we will establish benchmarks of performance at levels appropriate for each of our programs in order to provide a standard by which to compare student performance on key assignments.

Per recommendations by the University Assessment Coordinator, our program assessment efforts will include both qualitative and quantitative data using both direct and indirect methods of measurement. We also intend to use signature assignments from capstone courses wherever possible. Thus, we have also created measurement maps in order to gather data on appropriate measurement tools for each learning outcome (see Appendix A).

Based on these preliminary steps, we have created assessment plans for each of our programs. In the drafts of the plans described below, the learning outcomes are identified for each program, as well as the specific year that each learning outcome will be assessed. Each program has a corresponding detailed plan, in which the specific method(s) of data collection and analysis, timeline, and team members are identified and described. The detailed plans are available in the full Assessment Plan (Appendix A).

These plans are presented as drafts and should be considered initial steps in the assessment process. For each plan the Assessment Coordinator will annually review the initial draft of the assessment plan with the department, who will offer suggestions and revisions before confirming and implementing the plans. Thus, the details of these plans may change from this initial stage.

Initial Draft of Five Year Assessment Plan: Psychology Major

L.O./Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Competence	Capstone: 190 pre-post, Psych GRE score	Capstone: 190 pre-post, Psych GRE score	Capstone: 190 pre-post, Psych GRE score	Capstone: 190 pre-post, Psych GRE score	Capstone: 190 pre-post, Psych GRE score
Critical Thinking	Capstone: 107 paper, Exit survey	Capstone: 107 paper, Exit survey			
Inquiry & Analysis		Capstone: 102 paper, 102 final exam	Capstone: 102 paper, 102 final exam		
Written Communication				Capstone: 102 paper, GRE writing score	Capstone: 102 paper, GRE writing score

Initial Draft of Five Year Assessment Plan: ABA Certificate

L.O./Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Competence	171 pre-post; pass rate for BCaBA exam	171 pre-post; pass rate for BCaBA exam	181 pre-post; pass rate for BCaBA exam	184 pre-post; pass rate for BCaBA exam	171 pre-post; pass rate for BCaBA exam
Clinical Skills	191 oral presentations; pass rate for BCaBA exam	191 oral presentations; pass rate for BCaBA exam			
Critical Thinking		191 class debates; Exit survey	191 class debates; Exit survey		
Ethical Reasoning				191 class debates; pass rate for BCaBA exam	191 class debates; pass rate for BCaBA exam

Initial Draft of Five Year Assessment Plan: General Psychology MA

L.O./Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Competence	Core course signature assignment from content courses taught this semester	Core course signature assignment from content courses taught this semester	Core course signature assignment from content courses taught this semester	Core course signature assignment from content courses taught this semester	Core course signature assignment from content courses taught this semester
Critical Thinking	Capstone: thesis, Exit survey	Capstone: thesis, Exit survey			
Inquiry & Analysis		Capstone: thesis, Exit survey	Capstone: thesis, Exit survey		
Quantitative Literacy			Capstone: thesis, 203 final exam, Exit survey	Capstone: thesis, 203 final exam, Exit survey	
Written Communication				Capstone: thesis, 200 final paper, Exit survey	Capstone: thesis, 200 final paper, Exit survey

Initial Draft of Five Year Assessment Plan: I/O Psychology MA

L.O./Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Competence	Core course signature assignment from content courses taught this semester, Exit survey	Core course signature assignment from content courses taught this semester, Exit survey	Core course signature assignment from content courses taught this semester, Exit survey	Core course signature assignment from content courses taught this semester, Exit survey	Core course signature assignment from content courses taught this semester, Exit survey
Critical Thinking	Capstone: thesis, Exit survey	Capstone: thesis, Exit survey			
Inquiry & Analysis		Capstone: thesis, Exit survey	Capstone: thesis, Exit survey		
Written Communication				Capstone: thesis, 200 final paper, Exit survey	Capstone: thesis, 200 final paper, Exit survey

Initial Draft of Five Year Assessment Plan: ABA Psychology MA

L.O./Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Competence	274 pre-post	281 pre-post	284 pre-post	274 pre-post	281 pre-post
Critical Thinking	Capstone: thesis; Exit survey				
Ethical Reasoning		291 class debates; Exit survey			
Inquiry & Analysis			Capstone: thesis; Exit survey		
Problem Solving				291 class debates; Exit survey	
Written Communication					Capstone: thesis; Exit survey

2. As a result of last year's assessment effort, have you implemented any other changes at the department, the college or the university, including advising, co-curriculum, budgeting and planning?
> **a. If so, what are those changes? How did you implement those changes?**
> **b. How do you know if these changes have achieved the desired results?**
> **c. If no, why not?**

The Psychology Department is currently in the process of conducting a self-study of the curriculum and will be making recommendations and changes based on the results. These changes will likely impact assessment efforts, but the specifics cannot be determined at this time.

3. What PROGRAM (not course) learning outcome(s) have you assessed this academic year?

The Psychology Department assessed Competence in the Discipline of Psychology and Inquiry & Analysis for its undergraduate major in the 2012-2013 academic year. The department also assessed competence in domains related to thesis work for its graduate programs.

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Competence in the Discipline of Psychology: Undergraduate Major

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Competence in the Discipline of Psychology was determined by conducting pre- and post-testing in the following courses: PSYC 2 (Introductory Psychology), PSYC 135 (Psychology of Multicultural Groups), PSYC 137 (Stress Management), and PSYC 151 (Psychological Aspects of Death and Dying).

Introductory Psychology
Psychology 2 is the current lower division introductory course in the curriculum for the Psychology Department. It, or its equivalent, is required of all psychology majors at CSUS. Its course description is as follows: "Provides a general overview of theory and research concerning psychological processes at the basic, individual and social levels. Topics will include physiological psychology, personality, social psychology, maladaptive behavior, individual differences, and selected other topics." In addition to playing its role in the major, Psychology 2 is also represented in the General Education curriculum of the University, participating in Area D of GE. The following course specific learning objectives are specified for the course:
1. Students will improve in an understanding of the unique perspective taken by the discipline of psychology in its study of society and human behavior.
2. Students will improve in an understanding of the inquiry methods used by psychologists.
3. Students will improve in an understanding of the diversity that exists in human societies.
4. Students will demonstrate an understanding of the contribution to human society of at least two of the following groups: women, ethnic, religious, socio-economic, gays and lesbians, persons with disabilities.

Psychology of Multicultural Groups
Psychology 135 is an upper division elective course focusing on diverse cultural groups. Its course description is as follows: "Examines the role of culture, race, ethnicity, gender, and social class in human development and behavior within diverse cultural groups. Presents sociocultural and ecological perspectives on human development, i.e., that individuals must be understood in the context of his or her culturally patterned social relations, practices, institutions, and ideas. Explores psychological issues that pertain to the major ethnic minority groups in the U. S." In addition to playing its role as an elective course counting toward the major, Psychology 135 is also represented in the General Education curriculum of the University, participating in Area E of GE. The following course specific learning objectives were specified for Psychology 135:
1. Students will be able to recognize and critically examine the social, cultural, political forces and trends in societies and how they interact with psychological and physiological processes.

2. Students will be able to recognize and critically examine micro and macro level factors (i.e., individual, family, community, institution) related to human development and behavior across the life span.
3. Students will be able to recognize and critically examine their own individual behavior in relationship to the social and cultural environment, their cultural worldview and values, the nature of human relationships within multicultural societies, culturally-related stressors such as acculturation and discrimination, and the diversity of family structures.

Stress Management

Psychology 137 is an upper division elective course in stress management. Its course description is as follows: "Examination of the causes and manifested effects of various stressors such as physical, chemical, microbiological, socio-cultural, and psychological. Techniques for recognizing and coping with frustration and stress will be explored. Emphasis on the development of skills to handle commonly encountered stress producing situations." In addition to playing its role as an elective course counting toward the major, Psychology 137 is also represented in the General Education curriculum of the University, participating in Area E of GE. The following course specific learning objectives were specified for Psychology 137:
1. Demonstrating an understanding of the physiology and mental states of stress reactions.
2. Demonstrating an understanding of the stress management techniques of controlled breathing, meditation, biofeedback, and yoga.
3. Demonstrating an understanding of the particular stresses in the lives of students, women, minority groups, gays and lesbians, elderly, and persons with disabilities.

Psychological Aspects of Death and Dying

Psychology 151 is an upper division elective course in death and dying. Its course description is as follows: "Examination of the beliefs, attitudes, and behaviors associated with death and dying. Topics covered include children's and adults' concepts of dying and death; causes and types of death; self-destructive behavior; grief and mourning in the dying person and their survivors; euthanasia and other legal and ethical issues; cross-cultural and historical perspectives." In addition to playing its role as an elective course counting toward the major, Psychology 151 is also represented in the General Education curriculum of the University, participating in Area E of GE. The following course specific learning objectives were specified for Psychology 151:
1. Demonstrating an understanding of the physiology and biology of death and the dying process.
2. Demonstrating an understanding of the psychological and social implications of death and dying for the dying individual and for the bereaved.
3. Demonstrating an understanding of the particular experiences in the lives of students.

4. What method(s)/measure(s) have you used to collect the data?

As specified in our University-approved Assessment Plan, the course specific learning objectives for PSYC 2, 135, 137, and 151 were to be assessed using a pretest-posttest design. In such a design, students are administered a test very early in the semester covering knowledge that is

scheduled to be taught in the course. Such a test is presumably administered within the first week or so of the semester. At the end of the course, the students are administered either the same test or an equivalent test. The test format under the University-approved Assessment Plan was to be multiple choice. Each instructor developed his or her class-specific multiple choice test.

The hypothesis under evaluation was that the performance of the students would significantly increase from the pretest to the posttest. The level of statistical significance was to be determined at the time of the assessment because it was unclear at the time the assessment plan was developed what the sample size would be. Sample size is one of the factors affecting statistical power, and adjusting the statistical significance level is one way to compensate for lack of power. Implicit in the assessment plan was that the strength of the effect of the course was of interest as well. The Assessment Plan stated: "The level of significance does not determine the strength of difference in scores on the two exams." Thus, it is presumed that the Psychology Department has committed itself to evaluate not only the statistical significance of the difference between the pretest and posttest scores but also to evaluate the strength of the effect of the course as well. In the present study, the strength of the effect will be evaluated using two somewhat different but related metrics. These metrics are used extensively in behavioral research and evaluation studies, and are summarized very briefly here:

- *Eta Squared,* also known as R^2, is a squared correlation coefficient. It represents the proportion of total variance in the data that can be attributed to the treatment effect. In the present case, the treatment effect is the effect of the course. Eta squared is computed in an analysis of variance context by dividing the sum of squares of the treatment effect by the total sum of squares. According to Gamst, Meyers, and Guarino (2008) eta squared values of .09, .14, and .22 can be described in the behavioral sciences are approximating small, medium, and large effects.

- *Cohen's **d**,* developed by Cohen (1969, 1988), quantifies how clearly two means can be distinguished given that each is associated with a certain amount of variability. One can think of this as evaluation of a signal-to-noise ratio of sorts in that greater overlap of the variances surrounding the two means makes it more difficult to separate them. In the present case, the two means are the pretest and posttest means. Cohen's **d** is computed by dividing the mean difference by the average standard deviation around the means. Cohen proposed that, all else equal, **d** values of .2, .5, and .8 can be thought of as small, medium, and large effect sizes, respectively. For example, if the mean difference spans a distance of almost a full standard deviation unit, then the two means can be quite easily distinguished and so we would judge the effect size to be large.

The data collection period subsumes the fall 2012 and spring 2013 semesters. Data were collected from Psych 2 for four sections in the fall and three sections in the spring (810 students completed both the pretest and the posttest). Data were collected from Psych 135 for three sections in the fall and one section in the spring (133 students completed both the pretest and the posttest). Data were collected from Psych 137 for one section in the spring (17 students completed both the pretest and the posttest). Data were collected from Psych 151 for one section in the fall (32 students completed both the pretest and the posttest). Instructors administered the pretest in the

first week of classes and administered the posttest during the final two weeks of classes or during the final exam.

5. What are the criteria and/or standards of performance for the program learning outcome?

Criteria for improvement in Competence in the Discipline were determined by statistically significant improvement from pretest to posttest.

6. What data have you collected? What are the results and findings, including the percentage of students who meet each standard?
      a. In what areas are students doing well and achieving the expectations?
      b. In what areas do students need improvement?

Student test scores were entered into a data file with the requirement that each must have a pretest score and a corresponding posttest score. Thus, students who were lacking either a pretest score (e.g., they were absent on the day of pretest, they added the class after the pretest was administered) or a posttest score (e.g., they were absent on the day of posttest, they dropped the class sometime after taking the pretest) could not be included in the data analysis.

To allow different classes to be combined, all of test scores in our assessment process were converted to percentage correct responses. Table 1 presents the means (Ms) and standard deviations (SDs) of the pretest and posttest scores for each class.

The difference between the pretest and posttest means were evaluated with a one-way within subjects analysis of variance design. Results of the analysis indicated that the amount of improvement in test scores from the pretest to the posttest was statistically significant for all courses. That is, the chance of the difference occurring by chance alone, assuming the null hypothesis is valid, was less than one in a thousand for all four courses.

Although the magnitude of the mean difference might occur very infrequently based only on chance, it is also useful to determine the strength of effect that the course exerted in producing a statistically significant mean difference. This was evaluated using both the eta squared and Cohen's **d** statistics. Eta squared values ranged from to .70 to .96, representing a very large effect. Cohen's **d** values ranged from 1.32 to 1.85, also representing a very large effect.

Table 1
Means and Standard Deviations for Pretest and Posttest Scores for PSYC 2, 135, 137, 151

	PSYC 2		PSYC 135		PSYC 137		PSYC 151	
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Pretest	48.99%	16.40%	55.29%	20.13%	40.54%	13.66%	37.70%	10.45%
Posttest	69.82%	14.95%	79.33%	14.65%	71.77%	19.53%	53.81%	13.66%
ANOVA	$F(1, 807) = 996.97$		$F(1, 132) = 190.19$		$F(1, 16) = 85.09$		$F(1, 31) = 33.20$	
P value	< .001		< .001		< .001		< .001	
Eta sq	.96		.96		.70		.96	
Cohen's d	1.33		1.37		1.85		1.32	

Based on the statistical analysis, it can be concluded that the instructional process underlying Psychology 2, 135, 137, and 151 significantly and substantially increases the knowledge of the students about the subject matter covered in the course. It is therefore very effective in meeting its course specific learning objectives.

Inquiry & Analysis: Undergraduate Major and GE

The Department of Psychology adapted the AAC&U Inquiry & Analysis VALUE RUBRIC to represent its own discipline and curriculum orientation. In the departmental context, the inquiry and analysis arena was thought of as research scholarship including the domains of empirical as well as archival research. The department officially adopted the revised rubric during the 2012-2013 academic year (see Figure 1).
Six aspects or dimensions of the research process are identified:
- Topic Selection
- Existing Knowledge, Research, and/or Views
- Design Process
- Analysis
- Conclusions
- Limitations and Implications

Each of these aspects or dimensions is associated with a set of behavioral anchors ranging from *Benchmark* as the weakest level of performance to *Capstone* as the strongest level of performance.

The Department of Psychology made a determination to apply the Inquiry & Analysis rubric to the final paper submission for PSYC 102, Foundations of Psychological Research II, for the 2012-2013Academic Year. The catalog description for the course reads: "Students plan and conduct projects in psychology using experimental, quasiexperimental and correlational methods; they evaluate published research and write proposals and reports for course projects, with attention to such issues as the reliability and validity of the behavioral methods used, the degree to which statistical assumptions can be met, the adequacy of statistical power, and the internal and external validity of the project. Techniques for research design and analysis are examined, including analysis of variance, multiple comparison tests, factorial designs, simple effects, the use of repeated measurements, mixed designs, analysis of covariance and multiple regression; other multivariate methods may also be discussed." The spring 2013 semester was the last semester that this course was offered as an advanced methodology course. Beginning in the fall 2014 semester, the course will move to the capstone category.

Department of Psychology VALUE Rubrics
INQUIRY AND ANALYSIS

	Capstone 4	Milestone 3	Milestone 2	Benchmark 1*
Topic Selection	Identifies an innovative, focused, and manageable topic that addresses potentially significant yet previously less-explored aspects of the topic.	Identifies a focused and manageable/doable topic that appropriately addresses relevant aspects of the topic.	Identifies a topic that while manageable/doable, is overly narrowly focused and leaves out relevant aspects of the topic or is overly general.	Identifies a topic that is too narrowly focused or too general to be manageable or doable.
Existing Knowledge, Research, and/or Views	Synthesizes in-depth information from relevant, valid and reliable sources representing various points of view/approaches.	Presents in-depth information from relevant, valid and reliable sources representing various points of view/approaches.	Presents information from relevant, valid and reliable sources representing only limited points of view/approaches.	Presents information from sources that lack validity or reliability or represents limited points of view/approaches.
Design Process	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology or theoretical frameworks may be synthesized from relevant subdisciplines.	Critical elements of the methodology or theoretical framework are appropriately understood and developed; however, more subtle elements are ignored or unaccounted for.	Basic methodology or theoretical framework is understood; however, critical elements are missing, under developed, or unfocused.	Inquiry design demonstrates a misunderstanding of the methodology or theoretical framework.
Analysis	Identifies and completes most appropriate analytical procedure for methodology. Organizes and interprets evidence to evaluate hypotheses and reveal insightful patterns, differences, or similarities related to focus.	Identifies and completes appropriate analytical procedure. Organizes evidence to evaluate hypotheses and reveal important patterns, differences, or similarities related to focus.	Identifies and completes acceptable analytical procedure. Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities.	Has difficulty identifying and completing acceptable analytical procedure. Lists evidence, but it is not organized and/or is unrelated to focus.
Conclusions	Synthesizes evidence, relates to body of literature and states a conclusion that is a logical extrapolation from the inquiry findings.	States a conclusion focused solely on the inquiry findings. The conclusion arises specifically from and responds specifically to the inquiry findings.	States a general conclusion that, because it is so general, also applies beyond the scope of the inquiry findings.	States an ambiguous, illogical, or unsupportable conclusion from inquiry findings.
Limitations and Implications	Insightfully discusses in detail relevant and supported limitations and implications.	Discusses relevant and supported limitations and implications.	Presents relevant and supported limitations and implications.	Presents limitations and implications, but they are possibly irrelevant and unsupported.

*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

Figure 1. *Department of Psychology Value Rubrics: Inquiry and Analysis*.

4. What method(s)/measure(s) have you used to collect the data?

Three sections of PSYC 102 were taught during the 2012-2013 academic year (two in the fall and one in the spring). Each professor requires students to conduct a research project throughout the semester. Some students have the option of working in teams of two, while others are required to work independently. Students create a research question based on their interests and their review of the Psychological literature, design a research project to test their hypothesis(es), collect data from human participants, and analyze the data using statistical software. Each professor assigns a final APA research paper, wherein students model professional journal submissions by describing the extant literature and providing a rationale for the present study in an Introduction section, describing the methodology of the project they designed in a Method section, describing their statistical analysis of the data in a Results section, and discussing the results, limitations, and implications in a Discussion section. While some students choose to work in pairs on their research projects, all students submit individual papers at the end of the term.

At the end of the semester, professors teaching PSYC 102 randomly selected four final papers to evaluate for program assessment. The Assessment Coordinator collected the 12 papers (four papers from each of three professors), removed the students' names and any other identifying

information from the papers, and assigned each paper a random number for review. Next, the twelve papers and a copy of the Inquiry & Analysis rubric (see Figure 1) were sent to the PSYC 102 instructors and to the Assessment Coordinator. PSYC 102 instructors comprised the assessment review team because each has a vested interest in improving the course as it moves into the capstone category. Each reviewer evaluated each paper against the criteria set forth in the rubric.

5. What are the criteria and/or standards of performance for the program learning outcome?

Standards of performance for program learning have not yet been set for Inquiry & Analysis. However, this will be a topic of discussion at the department retreat in the summer, in preparation for the 2013-2014 assessment efforts, and among PSYC 102 instructors over the 2013-2014 academic year. Inquiry & Analysis is not set to be assessed again until the 2014-2015 academic year, which provides one year for PSYC 102 instructors to evaluate the results of the current assessment effort and make any changes necessary for the transition into capstone.

6. What data have you collected? What are the results and findings, including the percentage of students who meet each standard?
   c. **In what areas are students doing well and achieving the expectations?**
   d. **In what areas do students need improvement?**

The mean individual ratings for each faculty rater are shown in Table 2, together with their standard deviation. As can be seen, the mean ratings were virtually always between the scale values of 3 and 4, the two highest categories in the evaluation rubric. This indicates a substantial amount of rater agreement in the evaluation process.
The level of excellence indicated by the ratings is to be expected in a high quality research-oriented program. Most of the students who enroll in PSYC 102 intend to pursue graduate school, and so tend to be hard-working, motivated, and intrinsically interested in the subject matter of the course. The results speak to a high level of competence exhibited by the students as well as their faculty instructors.

Table 2
Individual Rater Means and Standard Deviations

	Topic		Lit Review		Design		Analyses		Conclusions		Limitations	
Rater	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
1	3.08	.29	2.67	.65	3.08	.52	3.08	.29	2.92	.29	2.83	.39
2	2.92	.67	2.83	.84	3.58	.52	2.75	.62	3.00	.60	2.42	.79
3	3.58	.67	3.50	.67	3.17	.84	3.25	.75	3.00	.85	3.17	.72
4	3.17	.39	3.33	.78	3.25	.45	3.83	.39	3.25	.62	3.00	.43

Although it may be clear from the individual rater results, Table 3 presents the means and standard deviations of the composite ratings. For this compilation, the evaluations for each dimension were averaged across the 12 ratings made by the four raters. Overall, the six dimensions were evaluated at approximately the same level of performance (around a 3.0 on the 4-point response scale). In fact, the reviewers rated the papers as largely meeting the Milestone 3

qualities or better. When broken down by dimension, 91.7% performed at the Milestone 3 or higher quality for Topic, 72.9% for Literature Review, 91.7% for Design, 89.6% for Analyses, 83.3% for Conclusions, and 72.9% for Limitations. These means and frequencies can be interpreted as reflecting a high level of competence of the paper authors.

Table 3
Composite Rater Means and Standard Deviations

Dimension	M	SD
Topic	3.19	.57
Literature Review	3.08	.79
Design	3.27	.61
Analyses	3.23	.66
Conclusions	3.04	.62
Limitations	2.85	.65

Competence in Thesis Work: Graduate Programs

Competence in thesis work was determined by collecting data from faculty thesis committee members, who evaluated students' theses on the following learning outcomes: Reviewing, and Evaluating Information from the Psychological Literature; Generating and Articulating Research Problems and Designing Sound Research Studies; Analyzing and Interpreting the Results of Data and Drawing Inferences and Conclusions from Empirical Results; and Writing Psychological Reports and Giving Professional-level Oral Presentations. The Department of Psychology continually applies the assessment form upon completion of the students' oral defense of his or her thesis. The Thesis/Project Competencies Assessment Form is below (see Figure 2).

Nine aspects or dimensions of the thesis/project process are identified:
- Literature Review
- Presentation of Context for the Thesis/Project
- Description of Research Problem/Purpose
- Methodology Addressing Problem/Purpose
- Data or Conceptual Analysis
- Conclusions Drawn from Analysis
- Writing of the Thesis/Project
- Oral Presentation of Work
- Responses to Questions During the Oral Defense

Each of these aspects or dimensions is associated with a set of behavioral anchors ranging from *Below Minimal Competence* as the weakest level of performance to *High Level of Competence* as the strongest level of performance.

Student Name: _____

Thesis/Project Competencies Assessment Form
Psychology Department
California State University, Sacramento

Instructions to thesis/project chair and committee members: Please fill out this evaluation at the completion of the oral defense. There is no need to put any identifying information on this form. The data will be aggregated and used to generate summary statistics for the graduate student outcomes assessment. Please return the completed form to the Assessment Coordinator. Thank you very much for your cooperation.

Assessment Scale

The following response scale should be used to evaluate the dimensions covered in the Evaluation Chart below.

Scale Label	Behavioral Anchor
Below Minimal Competence	Student has not demonstrated the minimal level of competence for master's students in psychology on this dimension.
Minimal Competence	Student has demonstrated the minimal level of competence for master's students in psychology on this dimension.
Satisfactory Competence	Student has demonstrated a satisfactory level of competence for master's students in psychology on this dimension.
High Level of Competence	Student has demonstrated a higher level of competence than is ordinarily expected of master's students in psychology on this dimension.

Evaluation Chart

Consider all of the Master's level psychology students you have known in your capacity as a professor at CSUS. With respect to that population of students, please place a check mark in the box representing the demonstrated level of each dimension listed below.

Dimension	Below Minimal Competence	Minimal Competence	Satisfactory Competence	High Level of Competence
Literature review				
Presentation of context for thesis/project				
Description of research problem/purpose				
Methodology addressing problem/purpose				
Data or conceptual analysis				
Conclusions drawn from analysis				
Writing of thesis/project				
Oral presentation of work				
Responses to questions during the oral defense				

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(Revised 11/27/05)

Figure 2. *Department of Psychology Thesis/Project Competencies Assessment Form.*

4. What method(s)/measure(s) have you used to collect the data?

Each student in the Psychology MA programs is required to conduct a thesis or project as his or her culminating experience. Students typically choose the thesis, wherein they create a research question based on their interests and their review of the Psychological literature, design a research project to test their hypothesis(es), collect data, analyze the data, and draw conclusions based on the results. Students are required to write an APA research paper describing their project, wherein students model professional journal submissions by describing the extant literature and providing a rationale for the present study in an Introduction section, describing the methodology of the project they designed in a Method section, describing their statistical analysis of the data in a Results section, and discussing the results, limitations, and implications in a Discussion section. Students also publically defend their thesis to a committee of three faculty members. Once oral presentations are scheduled, faculty committee members receive the assessment form and complete the form after the oral defense.

5. What are the criteria and/or standards of performance for the program learning outcome?

Standards of performance for program learning have also not yet been set for thesis work in the graduate program. However, this will be a topic of discussion at the department retreat in the summer, in preparation for the 2013-2014 assessment efforts.

6. What data have you collected? What are the results and findings, including the percentage of students who meet each standard?
        e. In what areas are students doing well and achieving the expectations?
        f. In what areas do students need improvement?

The mean individual ratings for each faculty rater cannot be determined for thesis assessment, as different raters review each thesis. Table 4 presents the means and standard deviations of the composite ratings for 11 students. For this compilation, the evaluations for each dimension were averaged across the three ratings made by each rater of each thesis. Theses without all three ratings were excluded from analyses. Overall, the nine dimensions were evaluated at approximately the same level of performance (around a 3.2 on the 4-point response scale). In fact, the reviewers rated the theses as largely meeting the "Satisfactory" or "High" level of competence. When broken down by dimension, 93.9% performed at the Satisfactory or High level of competence for Literature Review, 93,9% for Context, 93.9% for Purpose, 93.9% for Method, 93.9% for Analyses, 93.9% for Conclusions, 90.9% for Writing, 97% for Oral Presentation, and 87.9% for Responses to Questions. These means and frequencies can be interpreted as theses meeting culminating requirements for graduation, often at a level exceeding requirements.

Table 4

Composite Rater Means and Standard Deviations

Dimension	M	SD
Literature Review	3.27	.57
Context	3.21	.55
Purpose	3.21	.55
Methodology	3.21	.55
Analyses	3.27	.57
Conclusions	3.18	.53
Writing	3.21	.60
Oral Presentation	3.24	.50
Question Responses	3.21	.65

7. As a result of this year's assessment effort, do you anticipate or propose any changes for your program (e.g. structures, content, or learning outcomes)?
a. If so, what changes do you anticipate? How do you plan to implement those changes?
b. How do you know if these changes will achieve the desired results?

The results of the Inquiry & Analysis assessment efforts will be used in the coming year to spark discussion among PSYC 102 instructors for course and assignment revision. The current assessment data should be interpreted as preliminary data that allow the department to determine where students perform currently, before the course moves into the capstone category. Faculty will use these data to determine performance standards moving forward, and papers will be reassessed in the 2014-2015 academic year to determine whether further revisions are needed.

The results of the graduate thesis assessment efforts will be used in the coming year to spark discussion among faculty to determine performance standards moving forward.

8. Which program learning outcome(s) do you plan to assess next year? How?

The Psychology Department will assess the following learning outcomes in the 2013-2014 academic year for each of its programs:

Method / Program	Major	ABA Certificate	General Psych MA	I/O Psych MA	ABA Psych MA
Competence in the Discipline	Capstone course: PSYC 190 pre-post testing PSYC GRE scores	Advanced course: PSYC 171 pre-post testing BCaBA exam pass rate	Core course: PSYC 210 final paper Graduating student exit survey	Core course: PSYC 260 final paper Graduating student exit survey	Core course: PSYC 291 final paper Graduating student exit survey
Critical Thinking	Capstone course: PSYC 107 debate paper Graduating student exit survey	Advanced course: PSYC 191 oral presentations BCaBA exam pass rate	Capstone: thesis paper Graduating student exit survey	Capstone: thesis paper Graduating student exit survey	Capstone: thesis paper Graduating student exit survey

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