Department of Psychology Assessment Report 2014

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1. Department Mission:

Mission Statement

The Department of Psychology at UWSP aims to provide an excellent, well-rounded undergraduate education in psychology that is grounded in scientific study and directed toward the application of psychological knowledge in the professions and in life.

Vision Statement

The Department of Psychology will:

- Recruit and foster a highly-trained group of faculty members knowledgeable in psychology and specialized in one of the major subdisciplines in the field;
- Provide up-to-date knowledge and training in the theory and practice of psychology and its various subdisicplines;
- Educate psychology majors who are well-equipped to utilize the methods of inquiry, data collection and analysis in psychological investigation;
- Continue on-going development of state-of-the-art laboratories and research and training facilities in the discipline; and
- Apply psychological knowledge and methods to sustain efforts directed toward the betterment of the community.

2. Brief Description of Departmental Improvements/Changes:

Since the last assessment report in 2004, the Department of Psychology has made a number of changes in our program. These include changes to course offerings, structure of the major, and student organizations. One of the significant changes we made was to develop a student organization called the Psychology Peer Mentoring Program (PPMP). This student organization was designed to address the weakness in advising we discovered from our exit survey for seniors in our last assessment report. The PPMP is an organization in which students teach students about opportunities like clubs, research experience, and internships available in the psychology major.

Another significant change we made was to the research methods requirement in our major. Instead of offering an upper division course (PSYC 389 –Experimental psychology), which covered advanced statistics and research design, we now offer a 200 level course geared toward the sophomore level. This new class covers research design at a fundamental level and introduces the material early in a student's education to prepare them for other courses in psychology. In addition to these changes, the members of our department are more heavily collaborating on determining our appropriate program learning outcomes and how to measure the PLOs and GEP learning outcomes associated with our department's course offerings.

3. Program Learning Outcomes:

Theory and content

1. Students should be able to explain the characteristics of psychology as a scientific discipline as distinct from other disciplines.
2. Students should be able to explain the primary emphases of major theoretical perspectives in psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).
3. Students should be able to use major theories, concepts, and operational definitions to describe and interpret human mental processes and behavior comprehensively.

Research methods

4. Students should be able to compare and contrast different research methods, including quantitative and qualitative methods, depending on the nature of the research question being asked and the goals of the research.
5. Students should be able to demonstrate effective writing skills in various formats (e.g., essays, tests, papers) using APA style effectively in empirically based reports, literature reviews, and theoretical papers.

Critical thinking skills

6. Student should evaluate and challenge the quality of information, by being critical of claims that are not based on empirical evidence, are based on speculation, do not come from credible sources, or claims that are weak, contradictory, and inappropriate.
7. Students should make connections between diverse facts, theories, and observations and weigh evidence to determine how well evidence supports conclusions.
8. Students should demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity, and intellectual engagement.

4. National/Professional Standards

The psychology department program learning outcomes were adapted from the American Psychological Association's "Guidelines for the Undergraduate Psychology Major." The APA provides 10 major goals of an undergraduate major in psychology and each goal has approximately 4-7 suggested learning outcomes.

Incorporating all of these goals as our learning outcomes would be unreasonable. Thus, our assessment committee surveyed the faculty to determine which learning outcomes were part of what we consider our "enduring understandings" as suggested by Paula DeHart during an assessment workshop. From this survey, we identified 8 learning outcomes which suited the philosophy of our department. We also surveyed the department in order to determine which learning outcomes were addressed in courses at the beginning, intermediate, and advanced levels in order to create our curriculum map.

5. New/updated curriculum map

At what level is the objective taught? B=beginning, I=intermediate, A=advanced

Learning Outcomes	PSYC 110 Introduction to Psychology	PSYC 200 & 300 level content courses	PSYC 400 & 490 Capstone/WE
Theory and Content			
Students should be able to explain the characteristics of psychology as a scientific discipline as distinct from other disciplines.	B	I	A
Students should be able to explain the primary emphases of major theoretical perspectives in psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).	B	I	A
Students should be able to use major theories, concepts, and operational definitions to describe and interpret human mental processes and behavior comprehensively.	B	I	A
Research Methods			
Students should be able to compare and contrast different research methods, including quantitative and qualitative methods, depending on the nature of the research question being asked and the goals of the research.	B	I	A
Students should be able to demonstrate effective writing skills in various formats (e.g., essays, tests, papers) using APA style effectively in empirically based reports, literature reviews, and theoretical papers.	B	I	A
Critical thinking			
Student should evaluate and challenge the quality of information, by being critical of claims that are not based on empirical evidence, are based on speculation, do not come from credible sources, or claims that are weak, contradictory, and inappropriate.	B	I	A
Students should make connections between diverse facts, theories, and observations and weigh evidence to determine how well evidence supports conclusions.	B	I	A
Students should demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity, and intellectual engagement.	B	I	A

6. Assessment Strategies/Measures/Techniques/Methods

Direct Measures

1. **Cumulative Content Exam**

   The cumulative content exam is a test developed by members of the psychology department. It is designed to measure general knowledge in all of the major areas of psychology. The format of the exam consists of 50 multiple-choice questions organized by content area (Abnormal, Developmental, Social, Personality, Physiological Psychology, Perception, Cognitive Psychology, Learning, Statistics, and Research Methods in Psychology). The exam is designed to measure the knowledge that a graduating psychology major should have which extends beyond simply taking an introductory course in psychology.

2. **Psychology Critical Thinking Test (Based on Lawson, 1999)**

   The Psychology Critical Thinking Test is a 14 question short answer exam. The questions seek to assess whether students can identify various methodological flaws in descriptions of research conclusions.

3. **Authentic Assessments (Embedded in Course)**

   Two authentic/embedded assessments were used to assess learning outcomes depending on instructor data. These assessments come from PSYC 401: Introduction to Counseling and Psychotherapy and PSYC 490: Topics in Psychology – Evolutionary Psychology (which is a capstone course).

How measurements map onto PLOs

Learning Outcomes	Measurements Used to Assess Learning Outcome
Theory and Content	
Students should be able to explain the characteristics of psychology as a scientific discipline as distinct from other disciplines.	Content Exam
Students should be able to explain the primary emphases of major theoretical perspectives in psychology (e.g., behavioral, biological, cognitive, evolutionary, humanistic, psychodynamic, and sociocultural).	Content Exam
Students should be able to use major theories, concepts, and operational definitions to describe and interpret human mental processes and behavior comprehensively.	Content Exam
Research Methods	
Students should be able to compare and contrast different research methods, including quantitative and qualitative methods, depending on the nature of the research question being asked and the goals of the research.	Critical Thinking in Psychology Test PSYC 401: Introduction to Counseling and Psychotherapy Methodological Critique (embedded assessment)
Students should be able to demonstrate effective writing skills in various formats (e.g., essays, tests, papers) using APA style effectively in empirically based reports, literature reviews, and theoretical papers.	
Critical thinking	
Student should evaluate and challenge the quality of information, by being critical of claims that are not based on empirical evidence, are based on speculation, do not come from credible sources, or claims that are weak, contradictory, and inappropriate.	Critical Thinking in Psychology Test PSYC 490: Seminar: Topics in Psychology – Evolutionary Psychology Review Paper (embedded assessment)
Students should make connections between diverse facts, theories, and observations and weigh evidence to determine how well evidence supports conclusions.	Critical Thinking in Psychology Test
Students should demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity, and intellectual engagement.	Critical Thinking in Psychology Test

7. Assessment results/findings/interpretation:

Please see the appendix for detailed information about data collection and results.

Theory and Content PLOs

Content exam. Students who took upper division classes in psychology scored higher on the entire psychology content exam than students who had only taken PSYC 110: Introductory Psychology. Furthermore, upperclassmen who had taken a class in a specific area of psychology scored higher on a subdiscipline subtest than a student who was introduced to that subdiscipline in Introduction to Psychology. For example, students who had taken a class in developmental psychology scored higher on the developmental psychology section of the test than a student who had been only introduced to developmental psychology in their Introduction to Psychology class.

Since the content exam was created by the department, there are no standards for what is considered an acceptable score at the beginning, intermediate, and advanced levels. Our department has decided to set this year's data as a baseline with the goal of helping students to achieve a higher score on the exam in the future which are indicated in the table below.

Level	Score on Psychology Content Exam		
	Beginning (0-44%)	**Intermediate (45-55%)**	**Advanced (56-100%)**
Introduction to Psychology n = 98	62 (63%)	29 (30%)	7 (7%)
Upperclass Students n = 60	11 (18%)	15 (25%)	34 (57%)

Research Methods PLOs

PSYC 401: Introduction to Counseling and Psychotherapy Methodological Critique (embedded assessment). Students in PSYC 401 study the research methods for examining the effectiveness of different schools of psychotherapy. Their paper is a methodological critique of the design of studies of effectiveness for a particular therapy of their choice. A two-page take home final exam asks students to design a study comparing the therapy they researched to another therapy studied in class. They have to build on a study they previously read, integrating into their design other very specific elements, such as a study of cross cultural differences or dual diagnosis. The embedded assessment included 183 graded final take home essays from nine 401 sections taught over a five year period. Proficiency in research design would be indicated by an average score of B-or 82%.

The average grades (with standard deviation) in % correct were:

Sp 08 (1)	Sp 08 (2)	Fall 08 (1)	Fall 08 (2)	Fall 09	Sp 10	Fall 10	Sp 13 (1)	Sp 13 (2)
84.67	92.50	88.24	91.00	87.78	91.36	91.11	89.58	89.41
8.96	6.58	7.05	6.86	10.03	5.49	6.05	5.95	7.84

Critical Thinking PLOs

Critical Thinking in Psychology Test. Research Methods in Psychology students scored significantly higher (M = 27.28 out of a possible high score of 42, SD = 6.22) on the Critical Thinking in Psychology Test than Introduction to Psychology students, M = 21.19, SD = 6.34, $t(118)$ = 5.31, $p < .001$. In addition, our results are comparable to the findings of Williams et al. (2003) who compared students in a Human Development course using the same critical thinking test both prior to specific critical thinking instruction (M = 20.00, SD = 6.44) and after instruction (M = 24.72, SD = 5.28).

As the following table indicates, approximately half of the Introduction to Psychology students showed critical thinking skills at the beginning level and half at the intermediate level. In comparison, Research Methods Students showed critical thinking skills primarily at the intermediate level with a significant minority scoring in the advanced range.

Course	Score on Critical Thinking in Psychology Test			
	No skill (0-6)	Beginning (7-20)	Intermediate (21-34)	Advanced (35-42)
Introduction to Psychology Students n = 63	0 (0%)	27 (43%)	35 (56%)	1 (1%)
Research Methods Students n = 57	0 (0%)	11 (19%)	38 (67%)	8 (14%)

PSYC 490: Seminar: Topics in Psychology – Evolutionary Psychology Review Paper (embedded assessment). We used student papers from Lewis' Evolutionary Psychology class to measure PLO #6 (Students should make connections between diverse facts, theories, and observations and weigh evidence to determine how well evidence supports conclusions). Students performed much better on the sections of the paper which required them to summarize research studies (M = 87%). They did not perform as well when they were asked to use the research studies to make connections and weigh the evidence between these studies to support a conclusion (M = 78%).

Criteria	Intermediate (70-79%)	Advanced (80-100%)
Summarizing research	5 (25%)	15 (75%)
Making connections and weighing evidence	12 (60%)	8 (40%)

Note: n = 20 for all cells.

8. Dissemination of findings

The assessment report was presented to faculty at a meeting of the Department of Psychology on March 12, 2014. Feedback was obtained to plan future assessments and to discuss the implications of the findings. An electronic copy of this report will be archived on CD-Rom, Sharepoint, and a hard copy will be maintained in a Department Assessment Binder that contains the Department of Psychology's past assessment reports and department reviews. The archived assessment reports will be placed in the possession of the chairperson of the Department of Psychology Assessment Committee.

9. Implications

Theory and Content PLOs. The results from the Content Exam indicate that we are successful in meeting these learning objectives in our major. Nonetheless, the results from the Content Exam suggest that some of our students are not achieving as high of a level of mastery as we would expect. The Department of Psychology Assessment Committee will discuss possible changes to implement in the curriculum to bring more of our upper-class students into the advanced level of mastery.

Research Methods and Critical Thinking PLOs. The results from the Critical Thinking in Psychology test also indicate that we are successful in meeting the Critical Thinking PLOs in our major. In fact, we appear to be teaching critical thinking at a level higher than we expected in our Introduction to Psychology class.

The PSYC 490 embedded assessment suggests one area where we may work on improving students' ability to evaluate and challenge the quality of information. Our department also plans to create more embedded assessments in our capstone courses.

10. Reflections on the Department assessment process

The Critical Thinking in Psychology Test provided an important and useful method for assessing what our department indicated was our central focus in the major: research methods and critical thinking in psychology. Collecting the data for the Critical Thinking Test was time consuming and resource intensive, however. In order to obtain data from 120 volunteers, two undergraduate research assistants assisted in collecting and scoring the data. Introduction to Psychology students were run in groups of up to 10 at a time, but more often only 3-5 students signed up for a given time. Collecting the data took two semesters, but a significant source of time was spent developing a

scoring key to code the data and then to actually score the data, given 14 open-ended questions per test.

From discussions that have occurred during departmental faculty meetings, a number of faculty have voiced their disappointment that our departmental learning outcomes do not include one that focuses on the application of psychological principles to address real world problems. Our department plans to reassess our departmental learning outcomes in the near future.

11. Plan for the next assessment reporting cycle

The following table describes our tentative assessment plan for the next assessment cycle for our department program learning outcomes.

New PLOs	Assessment Method	Year 1	Year 2	Year 3	Year 4	Year 5
Knowledge base in Psychology	Content Exam	**X**		**X**		
Scientific Inquiry and Critical Thinking	Critical Thinking Test		**X**		**X**	
Ethical and Social Responsibility in a Diverse World	Indirect Assessments Survey*			**X**		
Communication	Embedded PSYC 490 Capstone Classes*	**X**	**X**	**X**	**X**	**X**
Professional Development	Indirect Assessments Survey*			**X**		

*Tentative measure which need to be developed.

The following table describes our tentative plan to integrate General Education learning outcomes into our assessment plan.

GEP Level	Assessment Method	Year 1	Year 2	Year 3	Year 4	Year 5
Social science GEP	Embedded in PSYC 110	**X**				
Communication in the Major	Embedded in PSYC 200, 400 and 490		**X**			
Capstone experience in the Major	Embedded in PSYC 490		**X**			
Experiential Learning	Embedded in PSYC 399		**X**			

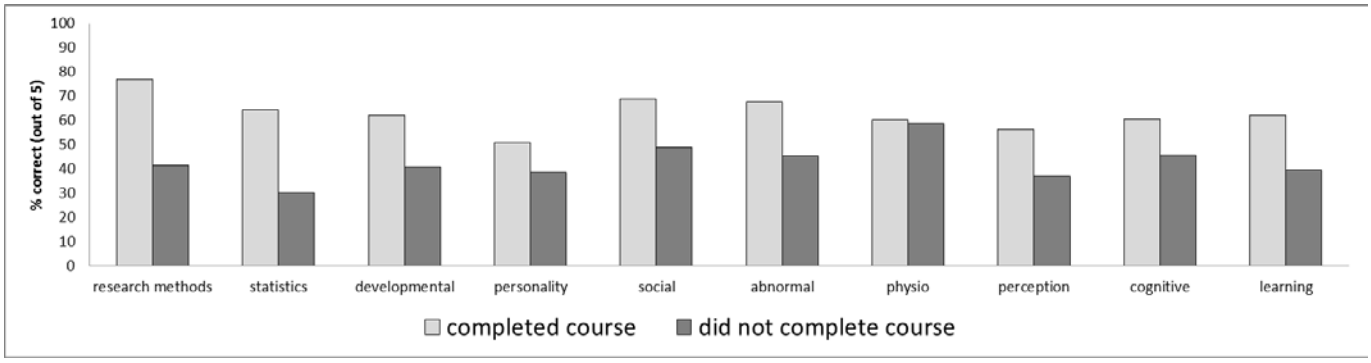
Appendix

Content exam

We gave our department content exam to 161 students who were enrolled in an introductory psychology class (n = 98) and in upper division courses in our department (n = 60). The sample included 78 freshman, 22 sophomores, 23 juniors, and 38 seniors. Students who were enrolled in upper division courses *(M=57%, SD = .11)* did significantly better on the exam than students who were finishing a course in introductory psychology, *M=40%, SD = .12, t(156) = -8.62, p = .001.* In addition, freshman *(M = 41%, SD = .13)* and sophomores *(M = 42%, SD = .10)* scored lower on the exam than juniors *(M = 50%, SD = .13)* and seniors, *M = 57%, SD = .13, F(3, 156) = 16.2, p = .001.*

We compared performance on each subsection of the exam between students who had completed a course in a specific subdiscipline versus students who were only introduced to course material in introductory psychology. Figure 1 below shows that students performed significantly better on a section of the exam if they had completed the course (light bars) than students who had received an introduction to the topic in introductory psychology (dark bars; all analyses $p < .05$). Each n in the figure refers to how many students in the sample completed that particular course. The only comparison that was not significantly different was physiological psychology *(t(158) = .18, p = .92).* However, this was a very small sample of students (only 9).

Figure 1: Percentage Correct for Content Subsection as a Function of Whether Course was Completed.



Critical Thinking in Psychology

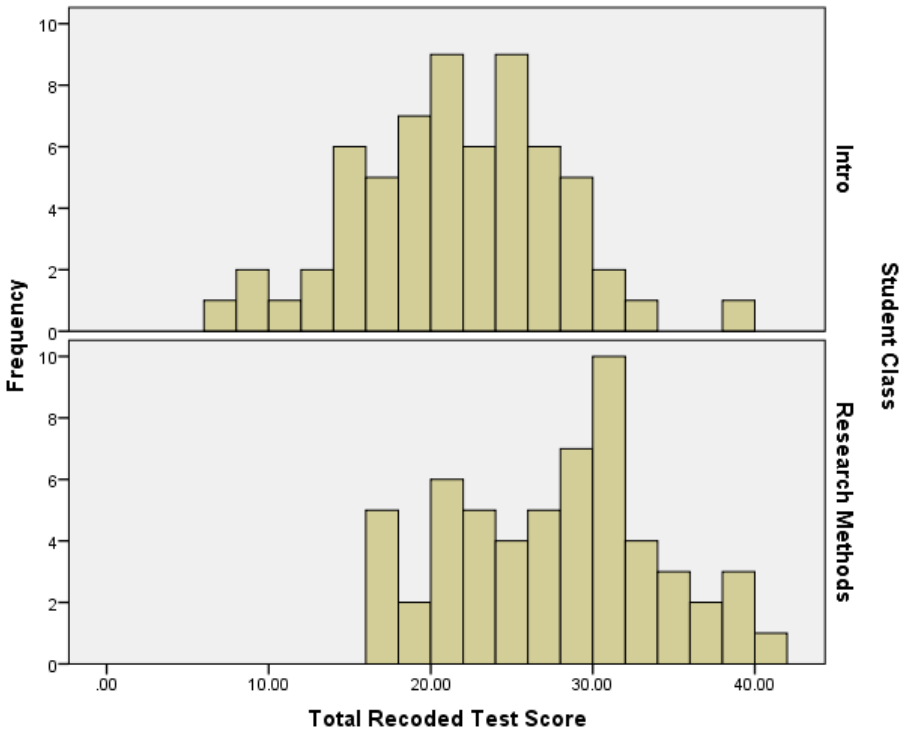
To assess our critical thinking PLOs, we used a test developed by Lawson (1999) from the College of Mount St. Joseph. The Critical Thinking in Psychology Test is composed of 14 short answer questions designed to assess the ability of psychology students to identify problems in conclusions made about research. All 14 questions have some problem with the conclusion indicated (e.g., unrepresentative sample, lack of a control group, failure to acknowledge multi-causality, etc.). Although Lawson

developed a scoring key for the test, we extended the key to identify answers of various categories besides correct or incorrect.

Scoring Rubric for Critical Thinking Test			
0	**1**	**2**	**3**
Answers that failed to indicate a problem with the conclusion made about research	Answers that recognized a problem with the conclusion but was misidentified	Answers that were partially correct (e.g., recognizing a potential placebo effect but not suggesting including a control group)	Answers that were completely correct.

We gave the Critical Thinking in Psychology Test to 120 students in psychology (63 in Introduction to Psychology and 57 in Research Methods in Psychology). Students were recruited either through the PSYC 110 subject pool (Introduction to Psychology students) or directly in class (Research Methods in Psychology) during the 2012-2013 academic year. Students in Research Methods scored significantly higher on the test (M = 27.28, SD = 6.22) than students in Introduction to Psychology, M = 21.19, SD = 6.34, $t(118)$ = 5.31, $p < .001$. Figure 2 shows the distribution of scores for both classes of students.

Figure 2: Frequency Histograms for Critical Thinking Exam Scores by Student Class.



Our results were comparable to Williams et al. (2003) who used a similar scoring key to compare students in a Human Development course at the University of Tennessee prior to critical thinking instruction (M = 20.00, SD = 6.44) and after instruction (M = 24.72, SD = 5.28). In fact, our Research

Methods students scored higher on the critical thinking test than the students in the Williams et al. study (although we should be cautious in making this comparison as the scoring keys were equivalent but not exactly the same).

PSYC 490: Seminar: Topics in Psychology – Evolutionary Psychology (embedded assessment)

The final research paper in Evolutionary Psychology is broken into 4 parts. In parts 2 and 3 students are asked to discuss the evolutionary and the non-biological explanations for a human behavior. In the 4th part of the paper, they are asked to weigh research evidence for the two theories and make conclusions. The instructions are as follows: "Compare and contrast the strengths and weaknesses of the research evidence discussed in parts 2 & 3. Make one of four decisions (both theories are well supported, neither theory is well supported, one theory is has better support than the other)."