

**Assessment Report for Student Learning  
In The Psychology Major  
2009-2010 Academic Year**

Updated by James St. James  
Professor of Psychology  
Chair, Department of Behavioral Sciences

Linda Collinsworth, Assistant Professor of Psychology  
Rene Verry, Associate Professor of Psychology

**Executive Summary**

This assessment report on the psychology major examines student learning during the 2009-2010 academic year. Our assessment of student performance provided evidence that students met or exceeded our evaluation benchmarks for each of the 3 learning goals. The current status of our assessment data, using the performance indicators, would be at the Yellow Level, meaning that we have begun to collect and demonstrate accomplishment of student learning goals, but have several areas of further improvement. Our plans for improving our assessment indicators are discussed.

**1. Student Learning Goals in the Psychology Major**

The 3 learning goals for the Psychology major are:

1. Students will demonstrate the ability to distinguish between non-scientific v. scientific approaches to mind and behavior and critique the similarities & differences between psychology and other sciences.
2. Students will demonstrate their ability to understand critical variables that influence mind and behavior from the 4 core areas: biopsychology, learning and cognition, developmental/social psychology, and applied psychology, and evaluate theoretical orientations within these approaches.
3. Students will demonstrate their ability to perform psychological research. That includes surveying the literature on a research topic using professional databases (such as PsycINFO and PubMed), developing an appropriate empirical research design, conducting the study in an ethical manner, and analyzing and reporting their data and interpretations in accordance with the professional standards of the discipline.

The psychology faculty are committed to the Millikin mission and have designed a curriculum which intentionally prepares majors for professional success, democratic citizenship in a global community, and a personal life of meaning and value by producing graduates who are capable of thinking critically from a psychological perspective.

Psychology graduates achieve the goal of *professional success* by demonstrating their ability to:

- a. distinguish between non-scientific v. scientific approaches to mind and behavior and critique the similarities & differences between psychology and other sciences.
- b. understand critical variables that influence mind and behavior from the 4 core areas: biopsychology, learning and cognition, developmental/social psychology, and applied psychology, and evaluate theoretical orientations within these approaches.
- c. demonstrate their ability to perform psychological research. That includes surveying the literature on a research topic using professional databases (such as PsycINFO and PubMed), developing an appropriate empirical research design, conducting the study in an ethical manner, and analyzing and reporting their data and interpretations in accordance with the professional standards of the discipline.

Psychology majors will develop a discipline-based understanding of *citizenship in a global environment* goal by:

- a. understand critical variables that influence mind and behavior from the 4 core areas: biopsychology, learning and cognition, developmental/social psychology, and applied psychology, and evaluate theoretical orientations within these approaches.
- b. demonstrate their ability to perform psychological research. That includes surveying the literature on a research topic using professional databases (such as PsycINFO and PubMed), developing an appropriate empirical research design, conducting the study in an ethical manner, and analyzing and reporting their data and interpretations in accordance with the professional standards of the discipline.

Psychology majors will develop discover and develop a *personal life of meaning & value* by:

- a. understand critical variables that influence mind and behavior from the 4 core areas: biopsychology, learning and cognition, developmental/social psychology, and applied psychology, and evaluate theoretical orientations within these approaches.
- b. demonstrate their ability to perform psychological research. That includes surveying the literature on a research topic using professional databases (such as PsycINFO and PubMed), developing an appropriate empirical research design, conducting the study in an ethical manner, and analyzing and reporting their data and interpretations in accordance with the professional standards of the discipline.

## 2. Snapshot

The Department of Behavioral Sciences includes majors in Sociology, Human Services, and Psychology. We have one full-time faculty member in Sociology, two in Human Services, and three in Psychology. In addition, several long-time adjuncts also support our majors. Two practicing clinical psychologists teach our Principles of Psychopathology.

Facilities include the Behavioral Sciences Computer Laboratory and two other rooms devoted to faculty and student research. Research is supported by specialized software for data collection (E-Prime™, developed by Psychology Software Tools, Inc.) and analysis (SPSS™ and SYSTAT™).

There are 57 Psychology majors, 21 Sociology majors, and 68 Human Services majors (May, 2010).

Though not directly relevant to the Psychology major, the courses in Psychology also serve many other majors. Basic Statistics for the Behavioral Sciences and Social Psychology are both cross-listed with Sociology. Majors in Human Services are required to take three Psychology courses. Majors in Nursing are required to take at least four Psychology courses, and those in Art Therapy are required to take at least four.

Table 1 reports the Psychology courses offered for '09-'10, along with their enrollments.

**Table 1. Courses, Instructors, and Enrollment—2009-2010**

Fall 2009			Spring 2010		
Course #	Instructor	Level	Course #	Instructor	Level
PS13001	St. James	33	PS13001	St. James	50
PS13002	St. James	34	PS13002	Verry	16
PS13003	Verry	35	PS13003	Verry	17
PS13004	Verry	23	PS20101	Collinsworth	25
PS20101	Collinsworth	26	PS20102	Collinsworth	32
PS20102	Collinsworth	27	PS20201	Verry	18
PS20201	Verry	18	PS20401	Collinsworth	31
PS20401	Collinsworth	32	PS26001	Collinsworth	6
PS260	Collinsworth	6	PS30301	St. James	28
PS30101	St. James	8	PS30401	St. James	10
PS31001	Bridge	29	PS30501	Verry	10
PS31002	Crowley	30	PS31001	Bridge	35
PS31003	Crowley	25	PS31801	Collinsworth	34
PS33101	Verry	9	PS34001	Sparks	37
PS34001	Sparks	23	PS34002	Fennesey	34
PS36001	Collinsworth	29	PS45001	St. James	2
PS39190	Crowley	1	<b>Total</b>		<b>385</b>
PS39191	Crowley	1			
PS45001	St. James	8	<b>Full Time</b>	3	279

<b>Total</b>		<b>397</b>	<b>Adjunct</b>	3	106
<b>Full-time</b>	3	288			
<b>Adjunct</b>	3	109			
<b>Summer 2007</b>					
<b>Course #</b>					
PS36001	White	2			
PS39090	Collinsworth	1			

#### 4. The Psychology Learning Story

The Psychology major was extensively revised in 2003 to emphasize preparation for graduate school. This change in emphasis was made possible by a recommitment of resources within the Department of Behavioral Sciences, with one full-time faculty position in Psychology switched to Human Services, permitting the hiring of a second full-time faculty member for that major. Traditionally, the psychology major has served two groups of students—those planning to continue on to graduate school in Psychology and those interested in a four-year degree as entrée to jobs in the helping professions. Because of the improvements in the Human Services course offerings, the latter group are now far better served by the major in Human Services. We have not been as successful as we would like in getting those students to switch to Human Services, though increasing numbers do so and we have also seen an increase in double majors of Psychology and Human Services.

There are two groups of courses for our majors in Psychology at Millikin University. One group provides coverage of the major content areas of Psychology; the other provides a background in psychological research. For the content areas, students take one course from each of the four core areas (biological psychology, developmental/social psychology, cognition/learning, and applied psychology), plus at least one additional course from one of those areas. The research component includes basic and advanced courses in statistics and in experimental psychology (research methods), and culminates in the Capstone.

**The developmental strategy.** Courses in the four core areas are not sequential. The specific selection of courses in each area is usually based on discussion with the advisor, and based on the specific interests of the students.

The developmental strategy of our curriculum is most evident in the research courses, which are clearly sequential. We typically advise students to take Basic Statistics in the Spring of the Freshman year or the Fall of the Sophomore year, with Experimental Psychology taken during the Sophomore year. Advanced Statistics and Advanced Experimental Psychology are then taken during the Junior year. Students in Advanced Experimental Psychology begin working on their Capstone by choosing a research topic and beginning to develop the literature survey and the research itself. It is expected that Institutional Review Board approval will be sought during that course. The intent is that

students will be completely ready to begin collecting data for the Capstone early in the Fall of their Senior year, so that the project can be completed, written, and reviewed by the faculty advisor by the end of that semester. Because applications for many graduate programs have deadlines between December and February for admission the following Fall, this timeline permits students to include copies of their final Capstone paper with their graduate applications.

Because of the sequencing of courses, some students—especially our strongest—can jumpstart the process by taking Basic Statistics in the Fall of their Freshman year, then taking both Experimental Psychology and Advanced Statistics in the Fall of their Sophomore year, and taking Advanced Experimental Psychology in the Spring of their Sophomore year. In this case, the research designed during Advanced Experimental Psychology is completed as a Junior, leaving the Spring of the Junior year and the Fall of the Senior year for a second research project that serves as the Capstone.

**Learning community.** Because cohorts of students tend to take the sequence of research courses together, we encourage appropriate collaboration and mutual help. In the original proposals to the National Science Foundation that equipped the Behavioral Sciences Computer Laboratory in 1990 and again in 1997, I emphasized the role that such a laboratory could play in providing students with a sense of a place of their own, making mutual help and collaboration more likely. The development of that sense of a learning community ultimately depends on the students themselves, and is stronger in some years than others. It is frequently a strong and obvious bond among the group of students taking Advanced Statistics and Advanced Experimental Psychology.

**Advising.** As with all majors, advising plays a developmental role, as well as providing concrete advice about scheduling. All three faculty do academic advising. Assessment of advising is conducted each semester, and the assessment tool and results are discussed below.

**Curriculum map.** The current curriculum map that is given to students as part of the advising process is included as Appendix 5. (Because of difficulties with formatting, this is in a separate file titled 08 Psy BSs Major Sheet.doc)

**A Comparison to Other Psychology Programs.** Eddy, Lloyd, and Lubin (1987) reported a survey of graduate programs in clinical, counseling, and school psychology that were accredited by the American Psychological Association. The programs were asked to rate the importance of various factors in graduate admissions. In all three areas, **research experience** was the most important factor—ahead of invited visits to the department, computer skills, paid or volunteer human service experiences, and a double major in social sciences. They noted that, “The most frequent comments concerning strong or broad preparation stressed the importance of research experience. *There is simply no better way to increase one’s chances of being accepted*” (p. 162, emphasis added). On a scale of 1-5, with 5 being the most important, clinical psychology programs rated research experience a 4.28. The second-most important factor, a personal visit to the department, was rated only a 3.14. Ratings were similar for counseling and school

psychology graduate programs. It is worth emphasizing that these were graduate programs in professional/applied psychology. We can safely assume that graduate programs in experimental psychology, neuroscience, or other scientific areas would value research experience even more highly. Also, though the survey is older than most of our current students, the emphasis on research experience has certainly not decreased.

With that as prologue, how does our curriculum compare to other schools? In regard to research experience, we are among the best. Table 2 reports the course requirements in research methods of statistics for Millikin and for the “peer” and “aspiration” institutions chosen by Millikin for purposes of a variety of comparisons. The other schools in the College Conference of Illinois and Wisconsin are also included.<sup>1</sup>

Millikin is the only one of the schools that requires both basic and advanced courses in research methods and statistics.

Millikin is among only three schools that require an empirical research capstone. Most schools require a capstone, but it is usually a literature survey, rather than an empirical study. Only about half (13 of 25) of the other schools even *offered* the opportunity for an empirical research capstone. This does not mean that none of their students are doing research, of course, but student research is not built in to the curriculum for **all** students.

**Table 2. Requirements in research methods and statistics. R = required, O = offered**

	Basic Statistics	Advanced Statistics	Basic Research Methods	Advanced Research Methods <sup>2</sup>	Empirical Research Capstone
Millikin University	R	R	R	R	R
Peer Institutions					
Concordia College	R		R		O
Drury University	R	O	R	R	O
Elmhurst College	R		R		
Gustavus Adolphus College	R		R		
Luther College	R		R		
Otterbein College	R		R		
University of Evansville	R		R		O
University of Portland	R		R		O

<sup>1</sup> Some schools had a two-semester sequence combining methods and statistics. They are listed here as having Basic Statistics and Basic Research Methods. The University of Indianapolis is omitted, as their web site did not specify the courses required for the major.

<sup>2</sup> A course by this title is likely to include some discussion of advanced topics in statistics, and combine, to some undeterminable degree, the Advanced Statistics and Advanced Experimental Psychology courses. I lump them together as Advanced Experimental Psychology.

Whitworth University	R		R		O
Aspiration Institutions					
Baldwin-Wallace College	R		R	R	R
Hope College	R		R		
Illinois Wesleyan University	R		R		
Mount Union College	R		R		O
Ohio Northern University	R		R	R	
Sienna College	R		R	R	O
St. Mary's University	R		R		
Stetson University	R		R		R
Stonehill College	R		R		O
Valparaiso University	R		R		
College Conference of Illinois and Wisconsin					
Augustana College	R	R	R		O
Carthage College	R		R		O
Elmhurst College	R		R		O
North Central College	R		R		
North Park College	R		R		O
Wheaton College	R		O		

#### 4. Assessment Methods

**Learning Goal 1** will be assessed through the Capstone (PS450) using the Capstone rubric (see Appendix 1) and the final grades in the research sequence (see Appendix 2).

**Learning Goal 2** will be assessed by examining the grades of Psychology majors for the four core content areas (see Appendix 3).

**Learning Goal 3** will also be assessed through the Capstone (PS450) using the Capstone rubric (see Appendix 1).

Learning Goals 1 and 3 will also be evaluated by monitoring student research and publication.

**Advising** will be evaluated via the Behavioral Sciences Advising Survey, which has been administered each semester as an anonymous questionnaire. The questionnaire is given to each student during advising for the following semester. Students are requested to turn in the survey (completed or not) in order to have our administrative assistant enter them into a registration group. The survey is included below as Appendix 5.

## **5. Assessment Results**

### **Learning Goal 1.**

As shown in Table 3, grades for the Capstone were generally good. Grades of A and B were earned by all students.

As shown in Table 4, grades across the four research methods courses were also generally good. Grades of A and B were earned by 59% of the students, and Cs by 23%.

### **Learning Goal 2.**

Grades in the four core content areas are reported in Table 5. Grades of A or B were earned by 56% of students, while 33% earned Cs.

### **Learning Goal 3.**

Grades in the Capstone are reported in Table 3. Grades of A and B earned by all students.

### **Advising.**

Results of the advising survey for Fall '09 and Spring '10 are reported in Table 6. Items were scored on a 5-point scale from 1 = Very Dissatisfied to 5 = Very Satisfied. For all items, the average was between a rating of "Satisfied" and a rating of "Very Satisfied." (These averages are across all full-time faculty in the Department of Behavioral Sciences. Psychology faculty also advise some students in Human Services, and we have no way to separate the surveys by major. Ratings are similar across all department faculty.)

### **Comment.**

Both the research sequence and the core courses showed slightly lower performance than for last year. It is not clear that this represents anything other than normal fluctuation, however.





**Table 5. Final Course Grades in Required Core Areas—Frequency by Grade**

Biological Core <sup>3</sup>											
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
2	3	2	5	2		3					
Cognitive/Learning Core <sup>4</sup>											
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
	1			1	1	2	3				
Developmental/Social Core <sup>5</sup>											
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
7	1	2	8	5	3	5	1				1
Applied Core <sup>6</sup>											
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
7	3	2	2		2	1			1		

**Table 6. Results of the Survey of Advising—Fall '09 and Spring '10**

Survey Item	N	Mean
Convenience of scheduling appointment	69	4.83
Amount of time spent with advisor during class scheduling appointment	69	4.81
Advisor's feedback about progress in meeting graduation requirements	69	4.74

<sup>3</sup> PS303--Physiological Psychology (PS315—Sensation and Perception not offered).

<sup>4</sup> PS331—Principles of Learning (PS332—Memory and Cognition not offered).

<sup>5</sup> PS204—Social Psychology, PS318—Personality Theory, & PS340—Lifespan Developmental Psychology .

<sup>6</sup>PS305—Industrial Psychology, PS306—Tests and Measurements, & PS310—Principles of Psychopathology.

Advisor's knowledge about course options or selections in the major	69	4.80
Advisor's knowledge about course options or selections in university studies MPSL	69	4.77
Advisor's availability throughout the academic year	68	4.74
Timeliness of responses to my questions or concerns	68	4.79
Ability to answer academic or plan of study questions	68	4.69
Knowledge about campus support programs	68	4.79
Knowledge about cocurricular opportunities	68	4.78
Knowledge about whom to contact to answer academic questions	68	4.79
Helpfulness with career preparation and planning	68	4.79
Information about job opportunities on campus or in the community	68	4.85
Attitude toward me as an individual	68	4.87

## 7. Improvement Plan

The following deficiencies exist in our assessment plan:

We still have not implemented collection of the final capstone project reports.

The capstone projects have not been formally assessed according to the rubric of Appendix I. However, grades for the capstone projects were assigned with those goals in mind, and so reflect a combination of those goals.

These two deficiencies will be corrected by including information about electronic submission and about the grading rubric in the syllabus for the Capstone. In addition, the three Psychology faculty will meet to decide how to assign percentages of the total grade to each of the areas graded under the rubric.

Beginning next year, we will likely be able to track grades of individual students in the research sequence to see whether there are developmental changes.

**Appendix 1 – Psychology Capstone Project Rubric (PS450)**

<b>Student Learning Goals</b>	<b>Nominal</b>	<b>Adequate</b>	<b>Excellent</b>
<b>Goal 1:</b> Ability to distinguish between non-scientific v. scientific approaches to mind & behavior, & critique the similarities & differences between psychology & other sciences.	Restates some general ideas but shows no evidence of key distinctions or ability to critique.	Understands most key distinctions; but process of moving from explanation to conjecture to analysis to synthesis is incomplete.	Demonstrates thorough understanding of key distinctions, & can readily move from explanation to conjecture to analysis to synthesis.
<b>Goal 3 part a:</b> Students will demonstrate their ability to use various databases to develop an appropriate research design, ..., analyze the study, and report their data in accordance with the professional standards of the discipline.	Questionable ability to evaluate or use data bases, poor selection & or flawed design, some ethical flaws, inaccurate or incorrect data analyses, & fails to use the language & style of the discipline in oral or written reports with many spelling & grammar errors.	General ability to evaluate or use data bases, good design selection with a few design flaws, ethical errors are few & minimal, uses correct data analysis tools with only a few errors, & uses the language & style of the discipline in oral or written reports with minimal spelling & grammar errors.	Excellent command & use of multiple data bases, effective design without significant confound, adheres to ethical standards, thorough and appropriate use of data analysis tools, & oral or written report is without spelling or grammar errors, & conforms to language & style of the discipline.
<b>Goal 3 part b:</b> Students will demonstrate their ability to ... ethically conduct a study,....	Fails to understand or adhere to the ethical principles & standards of psychology, minimal ability to explain or evaluate the impact of psychology on society, & minimal knowledge and skills with limited ability to apply these to serve professional and community needs.	General understanding & ability to evaluate how ethical principles & standards of psychology impact society, & can, with minimal ethical errors or deviations from standard practice, apply their knowledge & skills to serve professional & community needs.	Demonstrates rigorous & conscientious appreciation of how the ethical principles & standards of psychology impact society, & their writing & other work demonstrates complete adherence with these principles & standards when engaged in professional & community activities.

## Appendix 2 – Psychology Research Methods & Quantitative Analysis Rubric

<b>Artifact</b> Final Course Grades	<b>Green</b>	<b>Yellow</b>	<b>Red</b>
PS201	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
PS202	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
PS301	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
PS304	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)

### Appendix 3 – Psychology Core Coursework Rubric

<b>Artifact</b> Final Course Grades	<b>Green</b>	<b>Yellow</b>	<b>Red</b>
<b>Biopsychology PS303 or PS315</b>	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
<b>Learning – Cognition PS331 or PS332</b>	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
<b>Developmental - Social PS204, PS318, or PS340</b>	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)
<b>Applied Psychology PS305, PS306, or PS310</b>	70% of majors achieve a rating of adequate (C) or excellent (B or A)	60% of majors achieve a rating of adequate (C) or excellent (B or A)	Less than 50% of majors achieve a rating of adequate (C) or excellent (B or A)

## Appendix 4 – Behavioral Sciences Academic Advising Evaluation

We are interested in your experiences with a number of features of the department. Your feedback will help us identify what we do effectively and what we could improve. Please take a moment to answer these confidential questions so that we can work together to provide you with a department that tries to help you accomplish your goals. Fold this form in half, tape or staple it, and return it via campus mail to the department. Thank you for your participation!

**Please answer the following questions about yourself in the space provided.**

Major 1 \_\_\_\_\_ Major 2 \_\_\_\_\_ Minor \_\_\_\_\_

**Current class rank at Millikin:** \_\_\_ First Year \_\_\_ Sophomore \_\_\_ Junior \_\_\_ Senior

**Class rank when you declared your major in the department:**

\_\_\_ First Year \_\_\_ Sophomore \_\_\_ Junior \_\_\_ Senior

Other: \_\_\_\_\_

**Advisor:** \_\_\_ Collinsworth \_\_\_ Crisler \_\_\_ Garrison \_\_\_ St. James \_\_\_ Troy \_\_\_ Verry \_\_\_ White

**You just met with your advisor to schedule classes for the Fall "year" semester. For your recent class scheduling experience, please mark your answers using the scale below.**

1. Very dissatisfied    2. Dissatisfied    3. Neutral    4. Satisfied    5. Very satisfied

- \_\_\_ Convenience of scheduling your appointment with your advisor
- \_\_\_ Amount of time spent with advisor during the class scheduling appointment
- \_\_\_ Advisor's feedback about progress in meeting graduation requirements
- \_\_\_ Advisor's knowledge about course options or selections in the major
- \_\_\_ Advisor's knowledge about course options or selections in university studies (MPSL)

During the school year, you likely email, call, or meet with your department advisor about questions you have about your plan of study, internship or work opportunities, research opportunities, etc. Based on your year round experiences with your advisor in these areas, please mark your answer using the scale below.

1. Very dissatisfied    2. Dissatisfied    3. Neutral    4. Satisfied    5. Very satisfied    6. Not applicable

- \_\_\_ Availability throughout the academic year (e.g., questions, meetings)
  - \_\_\_ Timeliness of response to my questions or concerns (e.g., phone, email, meeting)
- \_\_\_ Ability to answer academic or plan of study questions
  - \_\_\_ Knowledge about campus support programs (tutors, Learning Center, Counseling Services, etc.)
- \_\_\_ Knowledge about co-curricular opportunities (student organizations, speakers)
- \_\_\_ Knowledge about whom to contact to answer academic questions
- \_\_\_ Helpfulness with career preparation and planning
- \_\_\_ Information about job opportunities on campus or in the community
- \_\_\_ Attitude toward me as an individual

Any additional comments: