**Assessment Report for Student Learning
In The Psychology Major
2006-2007 Academic Year**

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(psychology faculty).

1. Executive Summary

This assessment report on the psychology major examines student learning during the 2006-2007 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.

2. 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 use critical variables that influence mind and behavior from the 4 core areas: biopsychology, learning - cognition, developmental - social, and applied psychology, and evaluate theoretical orientations within these approaches.
3. Students will demonstrate their ability to use various databases to develop an appropriate research design, ethically conduct a study, analyze the study, and report their data 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 and differences between psychology and other sciences.
b. use critical variables that influence mind and behavior from 4 core areas: biopsychology, learning - cognition, developmental - social, and applied psychology, and evaluate theoretical orientations within these approaches,
c. demonstrate their ability to use various databases to develop an appropriate research design, ethically conduct a study, analyze the study, and report their data 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:

b. using critical variables that influence mind and behavior from 4 core areas: biopsychology, learning - cognition, developmental - social, and applied psychology, and evaluating theoretical orientations within these approaches,
c. using various databases to develop an appropriate research design, ethically conduct a study, analyze the study, and report their data in accordance with the professional standards of the discipline.

Psychology majors will develop discover and develop a *personal life of meaning & value* by:
   b. using critical variables that influence mind and behavior from 4 core areas: biopsychology, learning - cognition, developmental - social, and applied psychology, and evaluating theoretical orientations within these approaches,
   c. using various databases to develop an appropriate research design, ethically conduct a study, analyze the study, and report their data in accordance with the professional standards of the discipline.

By providing coursework and experiences that range from the most basic (neuroanatomy and neurochemistry) to the interactional (e.g., sociocultural), we prepare our majors to understand, think critically, and solve problems that pertain to mind and behavior. Within a liberal arts context, we teach majors how to scientifically study mind and behavior, and our majors pursue a variety of career paths upon graduation - (1) graduate study in experimental psychology (e.g., cognitive, development, learning, physiological, quantitative, industrial-organizational, memory), (2) graduate study in clinical or school psychology, or (3) entry level positions that utilize their critical thinking and analytical skills.

3. Snapshot

The Behavioral Sciences Department employs 3 full-time psychologists and 2-3 adjuncts to deliver the course offerings in psychology. Psychology courses serve Psychology majors and minors; Nursing, Art Therapy, and Secondary Education (History/Social Science) majors; and other University curriculum requirements, including CAS Social Sciences requirement and Gender Studies. The following table shows the Psychology classes taught during Summer 2006 to Spring 2007.

Fall 2006			Spring 2007		
Course #	**Instructor**	**Level**	**Course #**	**Instructor**	**Level**
PS13001	St. James	66	PS13001	St. James	67
PS13002	St. James	38	PS13002	Verry	26
PS20101	Collinsworth	30	PS13003	Verry	32
PS20102	Collinsworth	33	PS13019	Verry	1
PS20201	Verry	15	PS20101	Collinsworth	44
PS20401	Collinsworth	30	PS20102	Collinsworth	42
PS30101	St. James	9	PS20201	Verry	16
PS31001	Bridge	28	PS20401	Collinsworth	34
PS31002	Crowley	23	PS30401	St. James	10
PS31003	Crowley	23	PS30501	Verry	12
PS31501	Verry	22	PS30601	Collinsworth	15
PS34001	Wallis	22	PS31001	Crowley	19
PS34002	Wallis	26	PS31002	Bridge	31
PS36001	Collinsworth	21	PS33201	St. James	26
PS39190	Crowley	1	PS34001	Wallis	33
PS39290	Crowley	1	PS34002	Wallis	15
PS45001	St. James	8	PS39190	St. James	1
Total		**396**	PS39191	Crowley	2
	Classes	**Students**	PS39390	Crowley	2
Full-time	3	272	PS45001	St. James	2
Adjunct	3	124	**Total**		**430**
				Classes	**Students**
Summer 2006			**Full-time**	3	328
Course #	**Instructor**	**Level**	**Adjunct**	3	102
PS34001	Wallis	4			
PS35001	Bridge	4			

PS36001	White	2
PS39190	Verry	1
Total		**11**
	Classes	**Students**
Full-time	2	3
Adjunct	2	8

4. **The Psychology Learning Story.** Psychology majors ethically use the scientific method within a liberal arts framework to critically analyze complex, real-world problems and evaluate the merits of various tentative solutions. As students proceed through their plan of study, they are socialized into the paradigm of psychology. Regardless of their scientist or practitioner interests, all majors learn the value of a data-driven approach to understanding psychological phenomena, as well as delivering sound educational, clinical, and consulting services.

   We intentionally prepare students for graduate school using a plan of study that begins with an introductory course and then progresses through a sequential 5-course quantitative analysis and research methods skill set that provides our students. Guided by personal interest, career plans, and faculty input, students develop an individualized plan of study and a solid foundation as they select coursework from each of the required 4 core areas in psychology: developmental / social, biopsychology, cognitive / learning, and applied psychology. The major's elective requirement further directs students to select a not previously chosen course from any of the 4-core areas, or from a psychology topics course, or independent study. Because majors take quantitative analysis and research methods coursework, at the same time they complete coursework in the core, their experience of the connection between theory and practice is enriched. Majors gain further insights into value of the psychological perspective as they study how psychology is applied to real world problems (e.g., the workplace, psychopathology, psychological assessment).

   The plan of study culminates in the senior capstone research project designed to demonstrate the student's critical thinking skills, use of analytical tools, and research method knowledge, to conduct and report research project according to the professional standards and practices of psychology. In sum, the psychology major integrates the general education curriculum with major coursework, pre-professional experiences, and mentoring experiences to achieve the University's goals of professionalism, citizenship, and a life of meaning and value from a psychological perspective.

5. **Assessment Methods and Data.** Having revised the psychology major in 2003, the Psychology faculty decided to assess the major beginning with the first graduating class of 2007 as follows:

   1. Learning Goal 1 will be assessed in the Experimental Psychology Capstone (PS 450) using the Capstone rubric (see Appendix 1). As noted earlier, the senior capstone requires psychology majors to demonstrate their accumulated psychological knowledge and analytical skills by designing, conducting, analyzing, and reporting a research study. Given the present number of majors graduating annually, **t**his rubric will be used in Spring 2007 to evaluate all psychology majors' research projects. As numbers of graduating majors grow, we will at some point randomly collect a sample of the capstone project for comparable analysis. Learning Goal 1 will also be assessed by an evaluation of the final course grades in the Research Methods & Quantitative Analysis courses (see Appendix 2).

2. Learning Goal 2 will be assessed in the Required Psychology Core courses (PS 204, PS 260, PS 303, PS 305, PS 315, PS 331, PS 332, PS 340, PS 310, PS 360, PS 391) by examining the syllabi for these courses, and evaluating the distribution of grades in their course work (see Appendix 3).

3. Learning Goal 3 will also be assessed the Experimental Psychology Capstone (PS450). As noted earlier, the senior capstone requires psychology majors to demonstrate their accumulated psychological knowledge and analytical skills by ethically designing, conducting analyzing, and reporting a research study. Psychology faculty will use the Capstone rubric (see Appendix 1). This rubric will be used in Spring 2007 to evaluate all (given the presently small number of graduating majors) psychology majors' research projects.

4. Learning Goals 1 and 3 will also be evaluated by monitoring undergraduate research activities – we plan to track the research activity and publications of our undergraduates as evidence of their accomplishment of these learning goals.

5. Advising Survey – each semester when course schedule advising is performed, the department will administer the Behavioral Sciences Advising Survey. This anonymous questionnaire data will be collected, analyzed, and reported to faculty and students, and used as an indicator and source of guidance for how faculty are serving student needs.

6. Exit Survey – we plan to resume administering an exit survey in Spring 2007 to all graduating Psychology majors. In the past, Behavioral Sciences department scheduled group, exit interviews to obtain student perspectives and insights about their educational experience. Unfortunately, they were poorly attended (less than 1% of all departmental majors attended despite pizza enticements)and the department suspended them due to external validity issues. We hope the anonymous questionnaire emailed to each student as an attachment will be completed and returned. In addition, using a standard form across all disciplines in our department will allow for other comparisons.

6. Assessment Results

Learning Goals 1 & 3: We were unable evaluate the capstone research projects as they were inadvertently returned to students before copies had been made. We now plan to require electronic submission so that they can be readily be archived and evaluated. Despite the loss of these data, the final grades of those majors graduating in Spring 2007 can be examined. Final course grades could vary between a score of 0-4. As can be seen from the data in Table 1, we exceeded our proposed benchmark of 70% of our majors performed at the C level or above, and in fact had 91% performing at the B level or above. Indeed, 73% of our majors showed mastery of the course learning goals by performing at the A level, meeting the green level.

Table 1   Final Course Grade Psychology Capstone

Number of Students	PS450	Cumulative %
8	4	73%
1	3.7	82%
1	3	91%
1	2	100%

Given the emphasis on an empirical, scientific approach to understanding mind and behavior, the syllabi and final course grades for the statistics and research methods classes for our 11 graduating seniors were similarly evaluated and are displayed in Table 2. Final

course grades could vary between a score of 0-4. As can be seen from the data in Table 2, we again exceeded our proposed benchmark of 70% of our graduates performing at the C level or above. Moreover, as students proceeded through the major plan of study in analytical and methodological coursework, the percentages of students showing mastery (A-B level work) increased. In all of the statistics and quantitative methods classes, the majority of graduating majors performed at the B level or above (range 55% - 91%).

Finally, as pertains to additional demonstrations of analytical and methodological skill (Learning Goal 1), and knowledge in core content areas of psychology (Learning Goal 2), one of the graduates had two posters in the juried Millikin Undergraduate Research Poster Symposium, while another graduate was a co-author on a peer-

Table 2   Final Course Grades in Required Research Skills

Grade (# students)	Cuml. %	Grade (# students)	Cuml. %	Grade (# students)	Cuml. %	Grade (# students)	Cuml. %
PS201		PS202		PS301		PS304	
4(3)	27%	4(3)	27%	4(6)	55%	4(3)	27%
3.4(1)	36%	3.7(1)	36%	3.3(1)	63%	3.7(3)	55%
3(2)	55%	3.3(1)	45%	3(1)	72%	3(4)	91%
2 (3)	82%	3(1)	55%	2.7(1)	82%	2.3	100%
1(1)	91%	2.7(1)	63%	2.3(1)	91%		
.7(1)	100%	2.3(1)	72%	2(1)	100%		
		2(3)	100%				

reviewed journal article (Forbes**,** Gordon B., Jung, J., & **Haas, Kelly B. (**2006). [Benevolent Sexism and Cosmetic Use: A Replication With Three College Samples and One Adult Sample.](#) *Journal of Social Psychology,146*(5), 635-640).

Learning Goal 2: The syllabi, assignment samples, and final course grades for the 5 courses in the 4 core areas (1 selection required from each core and 1 elective, not previously chosen course from any of the 4 core content course areas) were assessed for our 11 graduating majors. Whenever a student took multiple courses within a core, an average for all the final course grades taken in that core was computed and served as the student's core grade. Thus most students had a single grade in most cores, and multiple grades in a few other cores. These data are displayed in Table 3. As can be seen from the data in Table 3, we again exceeded our proposed benchmark with virtually all graduating majors performing at the C level or above. In addition, most graduating majors performed at the B level or above (range 55%- 82%).

Table 3   Final Course Grades in 4 Required Core Areas

Grade (# students)	Cuml. %	Grade (# students)	Cuml. %	Grade (# students)	Cuml. %	Grade (# students)	Cuml. %
BP Core*		C-L Core*		D-S Core*		AP Core*	
4(3)	27%	4(5)	45%	4(4)	36%	4(6)	55%
3.7(1)	36%	3.3(3)	72%	3.7(1)	45%	3.7(2)	72%
3.3(1)	45%	2.7(2)	91%	3.5(1)	55%	3.4(1)	82%
3(1)	55%	2.3(1)	100%	3.4(1)	63%	2.5(1)	91%
2.7(2)	72%			3(1)	72%	2(1)	100%
2.3(1)	82%			2.6(1)	82%		
2(1)	91%			2.5(1)	91%		
1.7(1)	100%			2.2 (1)	100%		

* Biospychology (BP), Cognitive-Learning (C-L), Developmental-Social (D-S), Applied (AP)

Learning Goal 3: Students demonstrate their mastery of this learning objective by designing a study that conforms to the ethical standards and best practices in psychology. Whether falling in the exempt from review (e.g., surveys, archival research, or required IRB review categories, all majors are required to go through the IRB process (designing an ethical study, submitting the IRB paper work for a review, and addressing the IRB concerns if any) prior to conducting their capstone research project. In addition to experiencing the IRB review process, students learn to write a study description and informed consent form that enables study participants to understand their partnership role in the research process, as well as inform them of the safeguards that protect them. As Chair of the IRB, I (with input from the other IRB members) oversee and work directly with the student researchers to ensure their research projects are in compliance current professional and legal ethical codes.

Advising Survey: We currently (Fall 2006,) have data about the students' perceptions about the quality of academic advising for the Behavioral Sciences department as a whole. The Spring 2007 data are not reported as too few students participated to provide meaningful data. These anonymous questionnaire data are reported to faculty and students, and used both as an indicator of how faculty are serving student needs, as well as, a source of guidance to improve advising. The Fall 2006 advising data are presented in Table 4, where questions were evaluated by students on a 5 point scale. As can be seen in Table 4, the mean scores indicate that majors were satisfied to

Table 4   Fall 2006

Dept. $\overline{X}$	**Advising Categories** (5 point scale)
4.84 sd= .365	Convenience of scheduling your appointment with your advisor
4.74 sd= .609	Amount of time spent with advisor during the class scheduling appointment
4.69 sd= .706	Advisor's feedback about progress in meeting graduation requirements
4.57 sd= .565	Advisor's knowledge about course options or selections in the major
4.67 sd= .574	Advisor's knowledge about course options or selections in university studies
4.78 sd= .879	Availability throughout the academic year
4.83 sd= .841	Timeliness of response to my questions or concerns
4.67 sd= .825	Ability to answer academic or plan of study questions
4.84 sd= .970	Knowledge about campus support programs
4.88 sd= 1.044	Knowledge about co-curricular opportunities
4.76 sd= .802	Knowledge about whom to contact to answer academic questions
4.76 sd= .942	Helpfulness with career preparation and planning
4.90 sd= 1.071	Information about job opportunities on campus or in the community
4.91 sd= .342	Attitude toward me as an individual
N = 58 majors	

very satisfied (range 4.67 – 4.91) with the quality, competency, availability, and engagement of faculty in helping students develop a plan of study that prepares them for professional success, citizenship in a global environment, and a life of meaning and value.

7. **Improvement Plan**

First, we now plan to require electronic submission of the capstone research project so that we will readily have copies that can be easily distributed for evaluation, evaluated blindly with knowledge of the professor's assigned project grade, and then archived.

Second, we plan to systematically evaluate academic advising every semester on scheduling day. Our first survey provided useful information and the department is very supportive of the informative value of this survey both for faculty development, and insights into and evaluation of the advising process.

Third, we plan to examine our major and benchmarks relative to a recently published article in the *American Psychologist* dealing with "Quality Benchmarks in Undergraduate Psychology Programs" (Dunn, McCarthy, & Baker, 2007). The October 2007 article provides excellent benchmarks and rubrics for determining whether an undergraduate psychology program is distinguished, developing, undeveloped (their formative criteria). Moreover, the author's provide detailed rubrics for learning objectives standard psychology courses should contain and assess.

We need to further examine the nature of the required core course artifacts, in addition to final course grades, syllabi, and assignments, that will enable us to speak directly to the level of accomplishment of student learning goals. After a long hiatus, we will collect exit survey from graduating major for the fall of 2007 and spring of 2008.

Appendix 1 – Psychology Capstone Project Rubric (PS450)

Student Learning Goals	Nominal	Adequate	Excellent
	(1-2 points)	(3-4 points)	(5-6 points)
Goal 1: 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.
Score on Goal 1 _____			
	Nominal	Adequate	Excellent
	(1-2 points)	(3-4 points)	(5-6 points)
Goal 3 part a: 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.
Score on Goal 3 part a _____			
Goal 3 part 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.
Score on Goal 3 part b _____			

Appendix 2 – Psychology Research Methods & Quantitative Analysis Rubric

Artifact Final Course Grades	Green	Yellow	Red
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

Artifact Final Course Grades	Green	Yellow	Red
Biopsychology PS303 or PS315	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)
Learning – Cognition PS331 or PS332	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)
Developmental - Social PS204 or PS340	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)
Applied Psychology PS305, PS306, or PS310	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: