Assessment Report for Student Learning
In The Psychology Major
2017-2018 Academic Year

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Background

The faculty of the Psychology major have been discussing a variety of changes to best meet the changing needs of our majors. A comprehensive proposal for curriculum changes will be submitted for approval by the College and University in Fall 2018 to take effect Fall 2019. We look forward to the opportunities those changes will create.

One change we have already accomplished is dividing the Capstone responsibilities among the three psychology faculty members. These teaching duties do not count as part of the 4-4 teaching loads; rather they are counted as accumulated credit for course release semesters.

The Assessment Report for 2017-2018

Executive Summary

This assessment report on the psychology major examines student learning during the 2017-2018 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 for the research sequence, using the performance indicators, would be between the Yellow and Green Level as two of the four courses are at the Yellow Level and two are at the Green Level. It appears that we need to identify ways to improve our students' performances in the two beginning courses in the research sequence. One possible explanation for these results is that as students encounter the beginning rigorous research requirements of our discipline in the beginning courses, they self-select by changing majors. Thus, the students who progress to the upper level research courses are those who have persevered. This possibility needs to be examined.

In the Core Learning areas, our students are almost universally successful, placing all courses at the Green level.

1. Student Learning Goals in the Psychology Major

The three 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 Human Services, and Psychology. During the current evaluation period, we had two full-time faculty members in Human Services. However, Kay White, Associate Professor of Human Services, went out on medical leave approximately midway through the second semester. After that point, we utilized two adjunct professors to cover Prof. White's teaching responsibilities. During the 2017-2018 school year, we had three full-time faculty members.

Facilities include the Behavioral Sciences Computer Laboratory and two other small 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™).

There are 54 Psychology majors (May, 2018).

Though not directly relevant to the Psychology major, the courses in Psychology also serve many other majors. For example, Statistical Methods for the Behavioral Sciences and Social Psychology are both cross-listed with Sociology, and Statistical Methods for the Behavioral Sciences is chosen in fulfillment of the Quantitative Reasoning requirement in multiple other majors. Majors in Human Services are required to take two Psychology courses. Majors in Nursing are required to take at least one Psychology course (with two others recommended), and those in Art Therapy are required to take at least five.

Table 1 reports the Psychology courses offered for '17 – '18, along with their enrollments.

Table 1.
Courses and Enrollments

Fall 2017

Course #	Course Title	Instructor	Enrollment
PS13001	Introductory Psychology	St. James	50
PS13002	Introductory Psychology	Scircle	25
PS13002	Introductory Psychology	Scircle	25
PS20101	Statistical Methods x-listed as SO20101	Collinsworth	61
PS20201	Experimental Psychology	Scircle	14
PS26001	Research Seminar	Scircle	3
PS30101	Advanced Statistical Methods	St. James	14
PS31001	Principles of Psychopathology	Collinsworth	10
PS31501	Sensation and Perception	St. James	20
PS31901	Personality Theory	Collinsworth	13
PS34001	Lifespan Developmental Psychology	Scrimpsher	15

Course #	Course Title	Instructor	Enrollment
PS36001	Psychology of Stereotyping and Prejudice	Scircle	20
PS39190	Independent Study (2 hours)	Scircle	1
PS39191	Independent Study (1 hour)	Collinsworth	1
PS45001	Experimental Psychology Capstone	St. James	2
PS45001	Experimental Psychology Capstone	Scircle	5

Total Enrollment =279   Part-Time = 15   Full-Time = 264

Spring 2018

Course #	Course Title	Instructor	Enrollment
PS13001	Introductory Psychology	St. James	41
PS20101	Statistical Methods x-listed SO20101	Collinsworth	60
PS20201	Experimental Psychology	Scircle	12
PS26001	Research Seminar	Scircle	4
PS26002	Clinical Psychology	Collinsworth	12
PS30401	Advanced Experimental Psychology	St. James	14
PS30501	Social Psychology	Scircle	15
PS30502	Social Psychology	Scircle	15
PS31001	Principles of Psychopathology	McGarry	19
PS33201	Memory and Cognition	St. James	25
PS34001	Lifespan Developmental Psychology	Hall	28
PS36001	Practicum in Clinical Psychology	Collinsworth	4
PS45001	Experimental Psychology Capstone	St. James	2
PS45003	Experimental Psychology Capstone	Scircle	3

Total Enrollment =254   Part-Time = 47   Full-Time = 207

3. The Psychology Learning Story

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 currently take one course from three of the core areas (biological psychology, developmental/social psychology, and applied psychology), plus at least two additional courses from two of those areas. The "learning" core has not been taught for several years, and will be eliminated in the upcoming curriculum revisions. 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 three core areas currently taught 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 Statistical Methods 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 Statistical Methods in the Fall of their Freshman year, then take both Experimental Psychology and Advanced Statistics in the Fall of their Sophomore year, and take 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. As advanced in the original proposals to the National Science Foundation that equipped the Behavioral Sciences Computer Laboratory in 1990 and again in 1997, the role of that laboratory is vital 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.

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.[1]

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 [2]	Empirical Research Capstone
Millikin University	R	R	R	R	R
Peer Institutions					
Concordia College	R		R		O
Drury University	R		R	R	
Elmhurst College	R		R		O
Gustavus Adolphus College	R		R		
Luther College	R		R		
Otterbein College	R		R	O	O
University of Evansville	R		R		O
University of Portland	R		R		O

[1] Some schools had a two-semester sequence combining methods and statistics. They are listed here as having Basic Statistics and Basic Research Methods.

[2] 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.

	Col1	Col2	Col3	Col4	Col5
Whitworth University	R		R		O
Aspiration Institutions					
Baldwin-Wallace University	R	R	R		R
Hope College	R		R		O
Illinois Wesleyan University	R		R		O
Mount Union College	R		R		O
Ohio Northern University	R		R		
Sienna College	O		R	O	
St. Mary's University	R		R		
Stetson University	R		R		R
Stonehill College	R		R		
Valparaiso University	R		R		O
	R				
University of Indianapolis	R		R	R	R
College Conference of Illinois and Wisconsin					
Augustana College	R	O	R		O
Carthage College	R		R		O
Elmhurst College	R		R		R
North Central College	R		R		
North Park University	R		R		O
Wheaton College	R	O	R		

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 three 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 10 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 70% of the students, and C's by 17%. The overall results put us in between Yellow and Green. Statistical Methods and Experimental Psychology are in the Yellow range, and Advanced Statistics and Experimental Psychology are in the Green range.

Learning Goal 2.

Grades in the four core content areas are reported in Table 5. Grades of A or B were earned by 65% of students, and an additional 12% earned C's. These statistics place all courses in the Green category.

Learning Goal 3.

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

Advising.

Results of the advising survey for Fall 2017 and Spring 2018 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. Individual faculty members receive their individual sheets. The purpose of this reporting is not to identify individual faculty member's scores.)

Table 3. Capstone—Frequency by Grade

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
5			4	1							

Table 4. Final Course Grades in Research Skills Courses—Frequency by Grade

Statistical Methods

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
2	1	1	3	1		3		1	2	2	1

Advanced Statistics

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
3	1		7	1		2					

Basic Experimental

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
2	1	2	1	2		2	1		1		

Advanced Experimental

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
	4	1	4			5					

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

Biological Core[3]

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
6	4	2	12	3		5					

Social Core[4]

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
6	3	1	8	3	7			1	2	1	1

Applied Core[5]

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
1	1		1	2	2	1					

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[3]Sensation and Perception; and Memory and Cognition

[4] Social Psychology; and Stereotyping and Prejudice.

[5] Principles of Psychopathology.

Table 6. Results of survey of advising for Fall 2017—Department of Behavioral Sciences.

Descriptive Statistics

	N	Mean
Convenience of scheduling appointment	61	4.90
Amount of time spent with advisor during class scheduling appointment	61	4.77
Advisor's feedback about progress in meeting graduation requirements	60	4.78
Advisor's knowledge about course options or selections in the major	61	4.82
Advisor's knowledge about course options or selections in university studies MPSL	59	4.69
Advisor's availability throughout the academic year	61	4.77
Timeliness of responses to my questions or concerns	61	4.82
Ability to answer academic or plan of study questions	61	4.85
Knowledge about campus support programs	60	4.93
Knowledge about co-curricular opportunities	60	4.90
Knowledge about whom to contact to answer academic questions	61	4.93
Helpfulness with career preparation and planning	59	4.83
Information about job opportunities on campus or in the community	59	4.88
Attitude toward me as an individual	61	4.95

Table 7: Results of survey of advising for Spring 2018—Department of Behavioral Sciences.

Descriptive Statistics

	N	Mean
Convenience of scheduling appointment	52	4.88
Amount of time spent with advisor during class scheduling appointment	52	4.90
Advisor's feedback about progress in meeting graduation requirements	52	4.83
Advisor's knowledge about course options or selections in the major	52	4.92
Advisor's knowledge about course options or selections in university studies MPSL	52	4.92
Advisor's availability throughout the academic year	52	4.88
Timeliness of responses to my questions or concerns	52	4.88
Ability to answer academic or plan of study questions	52	4.92
Knowledge about campus support programs	52	4.98

Knowledge about co-curricular opportunities	52	4.96
Knowledge about whom to contact to answer academic questions	52	4.96
Helpfulness with career preparation and planning	52	4.96
Information about job opportunities on campus or in the community	52	4.92
Attitude toward me as an individual	52	4.90

Appendix 1 – Psychology Capstone Project Rubric (PS450)

Student Learning Goals	Nominal	Adequate	Excellent
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.
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.
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.

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 PS332 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)
Social PS305 or PS360	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 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: