

## Illinois Wesleyan University Student Learning Assessment

Department Name: Psychology Assessment Liaison Amanda Vicary

### **1. *Recounting the Assessment Cycle.***

This assessment cycle covered 2019-2022. During these years, we assessed various learning goals (detailed below) through senior class surveys, our Research Experience Program, our General Psychology class, and our Research Methods courses.

### **2. *Describe assessment measures that were used.***

**Student learning Goal 1: Incoming psychology majors taking Psychology 100 should understand basic research methodology and key concepts in the field to prepare them for 200 level classes delving into more specialized areas of Psychology.**

We previously developed a direct assessment method to broadly evaluate student learning outcomes in the required general psychology class for psychology majors. We are interested in the degree to which students are able to learn and retain pertinent information with respect to core areas/topics in General Psychology that they will encounter in subsequent classes in Psychology. These areas include:

- History/Foundations of Psychology
- Methods of Psychology
- Biological/Neuro Psychology
- Learning
- Sensation and Perception
- Memory
- Developmental Psychology
- Social Psychology
- Psychopathology

The assessment data comes from 18 multiple-choice items that are embedded within course exams given throughout the semester. This assessment was given to the section of our General Psychology course that is reserved for Psychology majors during this past Fall semester, with departmental discussion of the results occurring in the subsequent spring semester. Because the questions were embedded in a regular class exam, our response rate was 100% on this assessment measure. The questions included two items from each of the nine content areas listed above (for a total of 18 items). Through this instrument, we have a direct assessment of our psychology majors during their initial interaction with the field of psychology on the IWU campus. Because the assessment items are exam questions administered during the course of the General Psychology class, they are assessed while the content is relevant to the students in relation to their course goals and outcomes. This helps to ensure that all students are taking the content seriously and complete the assessment, which enhances the validity and reliability of our assessment of the General Psychology course.

We also used a direct measure to assess the Research Experience Program (REP), taking into account four sections of Psychology 100 this past year. We used actual completion percentages to examine the program's ability to provide students with first-hand exposure to scientific research methodologies in the field.

**Student learning Goal 2: *Psychology majors will develop an understanding and application of basic research methods such as research design, data analysis, and appropriateness of conclusions derived from psychological research.***

**Student Learning Goal 3: *Psychology majors will develop critical thinking skills in psychology.***

**Student Learning Goal 4: *Psychology majors will be able to apply psychological principles to everyday life and social issues, recognize the complexity of these situations and issues, and identify appropriate applications of psychology.***

**Student Learning Goal 5: *Psychology majors will develop their values in psychology by recognizing the necessity for ethical behavior, respecting human diversity, and understanding the limitations of psychological knowledge.***

To assess these learning goals, we used both indirect and direct measures. First, we used an indirect measure—our senior survey. The survey measured the degree to which students feel they have learned the department's student learning goals (critical thinking, application of their work to personal and social issues, etc.) as well as their opportunities to engage in research projects and their post-graduate preparation. Surveys were administered at the end of students' senior year last year and this most recent year. Response rate is 100% as we require completion.

The survey contained over 20 likert items and multiple free response items distributed across several major content sections. Although a number of the questions were aimed at helping our department understand students' overall experiences as Psychology majors (questions on

departmental environment, student development – personal growth, academic advising and departmental relations), the questions reported in the results below specifically addressed issues related to the student learning goals for students in our major.

Further, we used a direct measure to assess our Research Methods course, which is a 300-level course required for psychology majors. This course is geared toward sophomores and juniors (although most students take it their junior year) and provides students with a foundational background in the scientific methodologies related to research and writing competencies used in psychological research and reporting. This is a very rigorous class and covers not only a significant amount of information, but also requires a lot of skill-building in the students taking the course. This course relates to all aspects of our student learning goals (understanding research methods, design, and analysis, developing critical thinking, applying psychological knowledge, recognizing the need for ethics and understanding the limitations of psychological knowledge, etc.).

For the Research Methods assessment, Prof. Mignon Montpetit, who has taught the course for many years, devised a ten-item “quiz” similar to what one would see on an exam in the course. The rest of the psychology faculty then suggested revisions to incorporate, resulting in our final instrument. The instrument/quiz began with a multi-paragraph explanation of a research study and was followed by ten multiple choice questions meant to assess students’ understanding of various factors related to the above learning goals. This quiz was administered across two sections taught by two different instructors. Students in one class were given extra credit to complete the measure; in the other class it was required. The response rate was 20% in one section and 100% in the other.

**3. Summarize the data/results from your measures.**

**4. Describe the process by which you evaluated your data.**

**5. Describe what you learned as a result of the evaluation process.**

**6. What does your academic unit plan to do with the information it has evaluated?**

Below please find the summary of our data/result and the descriptions of the evaluation process, as well as information on what we learned from our assessment evaluation.

We collected objective data—this includes answers to the General Psychology 100 test questions, exact percentages regarding how many students completed research studies versus papers for the REP program, and answers to the Research Methods quiz questions. We also used indirect/subjective measures—responses to the senior surveys.

The department as a whole worked together to collect this information. Prof. Themanson collected the General Psychology answers in his section of the course and then calculated the response rate. Prof. Nebel-Schwalm collected the information regarding REP participation. Prof. Montpetit both primarily devised and distributed the Research Methods quiz questions, as well as analyzed the results. Prof. Vicary distributed the senior survey (results were automatically calculated via Qualtrics).

The psychology department as a whole discussed results both via email and in meetings. For instance, last Spring, the results of the psychology senior survey were sent out via email and conversation about the results ensued. The Research Methods assessment involved multiple department-wide meetings this past Fall to devise the measure and determine how it would be distributed, and then in the Spring a meeting was held where Prof. Montpetit presented the results and led a department-wide discussion regarding them. Additionally, this assessment report as a whole was worked on collectively by the department.

**Student learning Goal 1 & 2 results/discussion:**

<b>Area of Psychology</b>	<b>Correct Response Rate (%)</b>			
	<b>FA'21</b>	<b>FA'18</b>	<b>FA'17</b>	<b>FA' 16</b>
● History/Foundations of Psychology	74	83	81	70
● Methods of Psychology	73	75	86	85
● Biological/Neuro Psychology	83	85	86	90
● Learning	69	86	81	85
● Sensation and Perception	91	83	91	80
● Memory	91	97	100	100
● Developmental Psychology	98	91	95	95
● Social Psychology	82	85	81	75
● Psychopathology	97	94	86	83

In relation to the REP measure, we assessed all four sections of Psychology 100 during last Fall semester to determine the extent to which the students actively engaged in psychological research. From these sections, consisting of 117 students, 84% of the students engaged in the psychological research process as a participant in at least one research study. Further, 36% of

students earned all of their research experience credits (8 credits, or 4 hours of research) as participants (students have the option to earn their credit through a combination of participating in research projects or writing reports summarizing classic research methodologies in the field of psychology).

In comparison, the last time we assessed the REP program (2018-2019), we found that 97% of the students (we only assessed one section) engaged in the psychological research process as a participant in at least one research study. Further, 28 of the 31 students earned all of their research experience credits (8 credits, or 4 hours of research) as participants. The remaining 2 students earned their credit through a combination of participating in research projects or writing reports summarizing classic research methodologies in the field of psychology.

Overall, we are pleased with how our students are doing in Psyc 100: General Psychology course. We feel that the percentage correct on the test questions for the various domains is appropriate. We note that for some domains, the percentage correct increased from previous years and in other domains, it decreased. We would expect this due to change/small sample size and do not see any concerning trends. Additionally, while participation in research studies for the REP program (as opposed to the alternative assignment) decreased from prior years, we believe this has much to do with Covid-19. For instance, many faculty members had not returned to conducting research, leaving less opportunities for students to easily participate, in addition to the fact that some students were still uncomfortable participating in in-person events more than necessary.

### **Student learning Goals 3, 4, & 5 results:**

#### **Research methods results:**

<b><u>Area of interest</u></b>	<b><u>Percent correct</u></b>
Identifying theory	100
Identifying hypothesis	100
Inferential statistics	46
Operational definition	100
Independent/Dependent variables	92
Assignment to groups	92
Assignment to groups 2	92
Identifying statistical tests	61
Internal validity	54

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A lively discussion ensued regarding the results of our Methods assessment. First, we discussed what our general goals were. In other words, would we expect 100% from each student (answer: no)? Rather, we hoped that all students would get a majority of the answers correct, and that certain areas that are more “important” than others would have a higher accuracy rate.

Of the 13 students who completed the measure, all but one scored at 70% or above (9 of the students scored 80% or higher). In other words, the vast majority of students are performing at a B level or higher. As a reminder, we consider Research Methods to be one of our more difficult, if not the most difficult, of our classes, and therefore did not expect extremely high scores on this measure.

All students were able to identify the theory, hypothesis, and operational definitions—we consider these to be the most basic concepts; students would have been exposed to these ideas in prior psychology courses. All but one or two students were also able to identify the independent and dependent variables, understand assignment to groups, and comprehend basic ethics. The area students struggled on the most was significance testing/statistics and threats to internal validity.

We considered whether assessment results varied by class (this measure was given to two different methods courses). We were pleased to see that there were no noticeable differences between instructors. We also discussed the possibility of adding more basic definitional questions to the measure in the future—these current questions were all very application based. It’s possible some students have a basic understanding of the terms and simply were unable to apply them. While not ideal, this would help us better determine where a lack of understanding is occurring.

In the end, we decided as a department that there were no significant changes that needed to be made to our Research Methods course at this time, but rather, that we will continue to use this measure across future methods courses in order to track changes over time and across multiple instructors. This will be important, as the current sample is quite small (13 students), was given while still in the midst of the pandemic, and one of the courses was taught online.

Also, for one of the instructors, the measure was offered as extra credit. This means that, in general, the “best” and “worst” students would complete it. In the future, we will work to come up with a standard way the measure will be embedded in the classes—perhaps as part of the final exam or as a required assignment.

### **Senior survey results:**

#### **Area of interest**

**Sp’22 Sp’21**

Extent your psychology classes helped you (out of 5)

prepare for a future career	4.1	4.0
write more effectively	4.3	4.2
understand the scientific nature of psychology	4.5	4.3
think critically	4.4	4.2
Did you help with any research projects?	48%	62%

We are pleased with the results of our senior survey. For all measures above, the means were above 4.0 (the responses ranged from 1–very little to 5–very much). Students seem to feel that our department is helping them prepare for their future careers, write more effectively, understand the scientific nature of psychology, and think critically.

During 2021, 62% of students either conducted their own senior thesis or assisted a faculty member on a research project; however, this most recent year (2022), only 48% did. Upon discussion, we feel that this decrease is potentially due to two reasons 1: We have noticed a trend that less and less students are interested in research in general. Many of our students wish to be counselors as opposed to researchers, and for these students, we do not feel like their pursuit of interests such as internships or work experience over research is necessarily detrimental to their future careers. 2: Due to Covid-19, faculty did not have as many research opportunities available in the more recent years and also did not hold in-person events advertising these opportunities as we have done in the past. It's likely the seniors from 2021 had benefited from more exposure to research opportunities in their early years prior to Covid-19 (they would have been finishing their junior year when Covid hit, whereas the current year's seniors had only made it to the spring of their sophomore year when Covid arrived).

Moving forward, we plan to return to our annual "Fall BBQ" where we introduce students, especially first-years, to our research opportunities, thereby giving them a chance both to learn about all the various projects they can become involved with in a particular year and to approach us and express interest in a casual, comfortable environment.

***Provide a summary of your Assessment Report.***

During this past assessment cycle, we addressed the following student learning goals using both direct and indirect measures: the learning of key concepts in our psychology 100 class, the ability to critically think about and apply psychological principles to research design and analysis, and the ability to apply critical thinking and psychological principles to outcomes in everyday life and social situations in the context of appropriately using ethics to understand the limitations of psychological knowledge. The data suggests students were successfully exposed to a psychology curriculum that demonstrates these learning goals. Direct measures from the

introductory level course in psychology suggest students demonstrated knowledge of most subfields in Psychology. Results from a senior student survey, our REP program, and our Research Methods course assessment also suggest students have been exposed to a consistent level of instruction regarding the critical analysis, interpretation, reporting, and execution of scientific inquiry within the science of psychology.