

## Program-Level Assessment: Annual Report

Program Name (no acronyms): Psychology

Department: Psychology

Degree or Certificate Level: BS

College/School: Arts and Sciences

Date (Month/Year): August/2022

Assessment Contact: Lisa Willoughby

In what year was the data upon which this report is based collected? AY2021-2022

In what year was the program's assessment plan most recently reviewed/updated? AY2021

### 1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please list the full, complete learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

**SLO 1:** Students will demonstrate their knowledge of psychology concepts, principles, and overarching themes that constitute the empirical knowledge base in the domains of memory and cognition, neuroscience, and research methodology.

**The student learning outcomes assessed under SLO1 during 2021-2022 were:** *Students will demonstrate their knowledge of psychology concepts, principles, and overarching themes that constitute the empirical knowledge base (as explained in the next section, we were unable to assess specific three domains)*

**SLO 2:** Students will demonstrate their ability to apply psychological concepts, principles and skills to their capstone projects.

**This learning outcome was assessed fully.**

**We are implementing new outcomes to go along with our new curriculum plan this coming academic year (AY22/23). Revisions to assessment approaches are informed by past practices and data.**

### 2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe and identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

**For SLO 1:** To fully assess this outcome, we typically administer the Major Field Test (an ETS product that requires in-person testing) every other year. However, this did not happen due to COVID-related restrictions and resource limitations. Instead, we relied on multiple assessments representing various levels of progression related to our students' experiences:

1a. PSY1010 General Psychology Knowledge (questions 1, 2, and 7) (online and in-person sections included).

1b. PSY2050 Common Quizzes (online and in-person sections included).

1c. Capstone project judges' ratings for PSY4960 (question C1) (all online sections).

1d. Senior Exit Survey: students' self-assessment of knowledge gained, as it related to their understanding of key concepts in psychology, are reported (questions 29, 30, and 34).

**For SLO 2:** For this outcome, we utilized the following:

2a. PSY1010 General Psychology Knowledge (questions 3, 4, 5, 6, and 8) (online and in-person sections included).

2b. Capstone project judges' ratings for PSY4960 (questions ,, C3, and C4) (all online sections).

2c. Empirical Article Assessment (in-person)

2d. Senior Exit Survey: students' self-assessment of confidence in the application of skills to psychology (questions 31, 32, 33, 38, and 39) and to professional lives (questions 35, 36, 37, 40, 41, 42, 43, 44, and 45).

Madrid has their own independent Psychology program and their student artifacts are not included. However, they offer PSY1010 and PSY2050, and PSY4969 and we are actively coordinating with them to create a more uniform assessment plan across campuses.

### 3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tool(s) (e.g., a rubric) used in the process and **include them in/with this report document** (do not just refer to the assessment plan).

Descriptive statistics were computed for the PSY1010 General Psychology Knowledge quiz, the Capstone Judge's ratings, and the Senior Exist Survey by graduate student assistants and the Undergraduate Program Coordinator. Course instructors for the PSY2050 sections provided summary data, which was aggregated by the Undergraduate Program Coordinator.

#### Assessment Tool Specifics and Academic Year Notes

##### PSY1010 General Psychology Knowledge Quiz

An 8-item multiple choice quiz designed to capture student learning outcomes was administered to students at the start and the end of each semester and report only the end-of-semester results. Each item is attributed to specific APA goals. We report percent of students who correctly answered specific items. *Response rates were very low for the Fall 2020 semester due to an oversight in disseminating the posttest by the Undergraduate Program coordinator and thus the semesters are presented separately.*

##### PSY2050 Common Quizzes

These represent a series of common quizzes administered to all PSY2050 course sections and assess students' foundational knowledge of research methods and statistics. The seven quiz themes include ethics, levels of measurement, descriptive statistics, correlations, chi-square tests, t-tests, and a final statistics quiz. The percentage of students who achieved a passing grade (70% or better) are reported for each quiz.

##### Capstone project judges' ratings for PSY4965 and PSY4969

For each capstone course, two judges (a faculty member and a graduate student) completed ratings of posters during our annual Psychology Capstone Symposium. Items were rated on a 7-point scale, ranging from 1 (extremely poorly executed) to 7 (superior execution). We regarded a score of 4 as indicating having barely met minimal standards for an item and thus is considered the threshold for minimally acceptable performance. Average ratings across judges for specific items are reported. *This past Spring, due to COVID, we held a virtual capstone symposium and, in the interest of protecting students' privacy concerns, students were given the option to participate in the judging portion of the event. Although all capstone symposium students submitted a static poster representing their project, only students who provided an audio-visual oral presentation of their projects or participated in live virtual presentations to judges were included in the judging portion.*

##### Empirical Article Assessment

This assessment is designed to gauge students' ability to understand psychological research and critically evaluate an empirical article. It is administered to all PSY4960 students because BS students are required to complete this capstone course. Student read an empirical article and answered 10 questions related to the article. The 10-question quiz requires students to enter, in their own words, various questions and the responses are scored qualitatively by either a graduate assistant or a faculty member. The total possible points students may earn is 27. *Due to the pandemic, this assessment was administered online.*

##### Senior Exit Survey

This is a lengthy self-report tool we used to gauge various aspects of our students' experiences during their time at SLU and beyond. For this report, we report students' confidence ratings in their knowledge of psychological concepts and application of skills we aspire to develop within the domain of psychology and in students' personal/professional lives. Ratings were made on an agreement scale that ranged from 1 (not at all) to 5 (very much). Average ratings across items relating to each SLO are reported. *This survey has been administered each spring for more than a decade. However, we recently lost the ability to "impose" completion of this survey that was used in past academic years due to the loss of the 0-credit graduation designation (this was previously used to support completion). We will revisit this issue.*

#### 4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

##### For SLO 1:

##### 1a. PSY1010 General Psychology Knowledge

We examined the proportion of students who correctly answered questions 1 and 7 (knowledge and understanding of psychology). We noted that performance this past academic year on the assessment instrument was less than desired, with higher performance during the Spring, compared with the Fall semester. Given that the assessment is brief, we are planning to implement a more extensive 40-assessment tool to gain greater insight into what specific areas might benefit from a boost.

Item	Item Description	FALL (N = 281)*	SPRING (N = 243)
1	Fundamental attribution	53.7%	56.4%
2	Psychologist vs. psychiatrist	53.7%	56%
7	Piaget	28.8%	32.4%
*see note above			

##### 1b. PSY2050 Common Quizzes

Quiz performance for a sample of **172** students across the Fall and Spring semesters are reported. The percentage of students who achieved a passing grade (70% or better) are reported for each quiz. In some sections, students were afforded multiple attempts to complete the quizzes.

Ethics: **100% (single attempt); 100% (all, including single and multiple attempts)**  
 Levels of measurement: **67% (single attempt); 91% (all, including single and multiple attempts)**  
 Descriptive statistics: **94% (single attempt); 89% (all, including single and multiple attempts)**  
 Correlations: **88% (single attempt); 90% (all, including single and multiple attempts)**  
 Chi-square tests: **82% (single attempt); 88% (all, including single and multiple attempts)**  
 T-tests: **97% (single attempt); 93% (all, including single and multiple attempts)**  
 Final statistics quiz: **90% (single attempt)**

##### 1c. Capstone project judges' ratings for PSY4960

Question C1 was evaluated for each eligible poster (10 for PSY4960). This question assessed if students demonstrated general familiarity with major concepts, theoretical perspectives, empirical findings, historical trends, and/or applications in psychology, broadly. The average score was **6.16** (i.e., students, on average, met our minimal criterion of 4). **No** presentation failed to meet the minimal standard (i.e., received a score less than 4).

##### 1d. Senior Exit Survey

Respondents' average ratings of their confidence in knowledge on a 5-point scale (5=highest) related to (a) concepts, theories, and empirical findings (**M=4.71**), (b) historical events and trends (**M=4.05**), and basic

research methods were reasonably high (**M=4.48**). Across the three items, the **21** students rated their knowledge in these three areas with ratings no lower than 3.

**For SLO 2:**

**2a. PSY1010 General Psychology Knowledge**

We examined the proportion of students who correctly answered questions 3, 4, 5, 6, and 8. For all items and for both semesters, a large majority of the students correctly answered each question. However, it should be noted that the proportions are lower this year compared with last year. The lowest proportion of correct responses was observed for ethics and this information will be shared with PSY1010 instructors.

Item	Item Description	FALL (N = 281)*	SPRING (N = 243)
3	Quality of research methods	<b>78.6%</b>	78.8%
4	Sources of bias	85.8%	82.3%
5	Ethics in dissemination	64.4%	62.2%
6	Correlations	81.0%	79.7%
8	Applications of psychology	84.5%	83%
*see note above			

**2b. Capstone project judges' ratings for PSY4960**

Questions C2, C3, and C4 were evaluated for each eligible poster (10 total). These questions assessed critical synthesis and problem solving, demonstration of awareness and understanding of human diversity and dignity, and general ability to apply psychological concepts, principles and skills to their projects, respectively. The mean ratings were **6.16** for C2, **6.05** for C3, and **6.16** for C4 (i.e., students, on average, met our minimal criterion of 4 for all items). All presentations met the minimal standard (i.e., received a rating of 4 or higher) for all items.

**2c. Empirical Article Assessment**

Thirty-two students enrolled across two PSY4960 sections completed this assessment, which was used as an evaluation of students' ability to understand and critically evaluate an empirical article. The average score, represented as a percent of the total number of points correct, was **78%**. Although overall, students performed well, 8 out of the 40 students failed to meet low passing marks (passing is 70%). There were numerous errors across students for question 4 (a foundational question about the significance level), questions 6 & 7 (internal and external validity), and question 8 (critical comments about drawing causal conclusions). Although overall performance was lower this year, a review of the assessment tool reflects high problems with the way the test is administered (the article directly contains answers for the students in the discussion section), the way the questions are asked (the assessment tool conflates alpha a p-values and is unclear about question objectives), and the rubric does not align with the assessment in a harmonious way (the acceptable answers on the rubric reflect particular interpretations of questions). Thus we have revised this assessment tool and plan on administering it to both earlier to PSY2050 students who are learning the foundations of research methods and statistics and later to our students closer to graduation (e.g., in the capstone sections).

**2d. Senior Exit Survey**

Respondents' (N=21) reported confidence in the application of skills that our program aspires to develop within the domain of psychology and in students' personal/professional lives were examined. Across the 5 items that addressed the application of skills to psychology, the average rating was **4.55**, with the ratings ranging from **3** to **5**. A closer examination of the item that had the lowest average (**4.14**) was the item associated with using computers and other technology to access and evaluate psychology-related information. Across the 9 items that addressed the application of skills and knowledge to one's own personal/professional lives, the average rating was **4.33**, with the lowest and highest ratings ranging from 2 to 5. Inspection of the items with the minimal rating of 2 included items where respondents rate their ability to apply psychology to self-management and self-improvement (*M*=4.10), social and/or institutional contexts (*M*=4.55), and confidence in making public presentations (*M*=3.95).

**Additional information of interest from the Senior Exit Survey:**

Additionally, **52%** of respondents reported completing a psychology-related field practicum and **38%** reported working as a research assistant in the department (slight increase from 2021 graduate respondents). **76%** reported earning course credit for engaging in research in the psychology department. Finally, **29%** of the respondents applied to graduate programs in psychology, of which **67%** were accepted. Furthermore, **33%** of graduating seniors applied to professional or graduate programs other than psychology, with **71%** of those students reporting acceptance. Many students indicated they were thinking about taking a gap year (**95%**). Furthermore, open-ended comments indicated a desire for greater conversations about career options and paths and community-building.

## 5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

Although we are continuing to develop interpretations of these results, there are several outstanding trends to note and will need to be addressed.

1. We are concerned with the PSY1010 general knowledge results and will work with our instructors on that front. However, our existing general knowledge tool is limited (8 items) and a more expansive post-test may be given to our students. Our plan to improve assessment is listed below.
2. Our PSY2050 quiz performances were overall very good and has raised questions about discrimination power. However, this course is now a Ways of Thinking (quantitative) course and thus we have new assessments that will be implemented during the 22/23 academic year. New assessment plan listed below.
3. The senior exit survey highlights the need to help our students develop the confidence in their ability to use and apply psychology to social, institutional, and personal contexts. Open-ended comments indicated a desire for greater networking opportunities and career information.

## 6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

We have not yet discussed the results of this report. It will be on the agenda of our Undergraduate Program meeting this Fall for discussion but will be distributed widely to all full-time faculty for review. This report, along with the attachments and other summary data, will be shared. The results will likely lead to:

1. Improve our assessment of General Knowledge with an enhanced, evidence-based assessment tool. This assessment tool will be implemented by the end of the academic year.
2. Improve the PSY2050 assessment tools for richer assessment of students' science literacy. These new assessment tools will be implemented during the Fall 2022 semester.
3. Faculty and course instructors will be encouraged to incorporate more content to improve students' understanding of how to apply psychological principles and science to social, institutional, and personal contexts. We will also strive to increase accessibility of career and major related information, as well as new networking opportunities, through The senior exit survey highlights the need to help our students develop the confidence in their ability to use and apply psychology to social, institutional, and personal contexts.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies

- Course content
- Teaching techniques
- Improvements in technology
- Prerequisites
- Course sequence
- New courses
- Deletion of courses
- Changes in frequency or scheduling of course offerings

Changes to the Assessment Plan

- Student learning outcomes
- Artifacts of student learning
- Evaluation process
- Evaluation tools (e.g., rubrics)
- Data collection methods
- Frequency of data collection

Please describe the actions you are taking as a result of these findings.

Action step 1: We are planning to pilot our new assessment plan to map onto our new curriculum (see attachment). The assessment plan includes the aforementioned new assessment tools.

Action step 2: We will share with faculty and instructors the specifics of this report that could be enhanced through course work.

Action step 3: Finally, we plan on hosting several events open to all majors (1 to 2 per semester) to promote community and information sharing related to careers and opportunities in the major.

If no changes are being made, please explain why.

NA

## 7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

Changes to the curriculum (based on past findings):

- We have a newly revised curriculum that was designed to give students greater exposure to foundation-related information and to align our curricular features with the APA (American Psychological Association) recommendations.
- The newly revised curriculum, along with new SLO's, have led to re-evaluation and revision of our assessment approaches. We will continue working toward better assessments.
- The curriculum for the BA program now requires students to gain applied educational experiences, which can be attained through practica, engagement in professional research labs, and/or through courses that emphasize skills development beyond the required classes (e.g., Psychological Tests and Measures). This component was directly the result of past assessments indicating a desire for greater experiential learning opportunities and has led to the permanent plans to initiate class-based practica experiences every semester starting this Fall (Dr. Kuebli), along with class-based research lab experiences (e.g., the CUBB Lab, Dr. Willoughby).

B. How has this change/have these changes been assessed?

The new curriculum is starting Fall 2022 and we plan to tailor our assessments to the SLO's.

C. What were the findings of the assessment?

Assessment results are pending and we are looking forward to the results.

D. How do you plan to (continue to) use this information moving forward?

Although we do not have any assessment results, we will move forward with intentional effort to make use of our assessment efforts to improve and grow.

**IMPORTANT: Please submit any assessment tools (e.g., rubrics) with this report as separate attachments or copied and pasted into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document.**

## General Psychology

**Instructions:** Please read each item below. Then **CIRCLE** the letter that corresponds to the answer that is most correct.

1. Bobby observed a neighbor speed down the street and concluded that person was a selfish, inconsiderate person. Bobby knew the neighbor had serious medical issues but did not consider that they might be rushing home to take their necessary emergency medications. This scenario is an example of:
  - a. reaction formation
  - b. fundamental attribution error
  - c. false memory effect
  - d. conservation error
  
2. A \_\_\_\_\_ primarily helps clients with therapy and is not a medical doctor. A \_\_\_\_\_ is a medical doctor who specializes in the treatment of mental disorders.
  - a. clinical psychologist; psychiatrist
  - b. counselor; clinical psychologist
  - c. psychiatrist; clinical psychologist
  - d. clinical psychologist; counselor
  
3. After reading an article about a research study suggesting that eating chocolate increases a person's intelligence, suppose our friend begins to eat a lot of chocolate. Which of the questions below would be MOST IMPORTANT for judging the scientific merits of the study?
  - a. Is the researcher who published the original study well-known?
  - b. Was the research funded by a major grant?
  - c. Were the participants randomized and were proper controls used?
  - d. What color wrapper covered the chocolate used in the study?
  
4. Imagine having a friend who proudly says she is an advocate for equality and diversity. You and your friend attend a community social justice event together. You notice that your friend approaches and mingles with younger people even though a greater number of older adults are present. Later when asked, your friend has no explanation and seems embarrassed that she selectively only approached younger people. She said that she did not realize that she tends to seek out one age group over the other. One possible explanation is that your friend's behaviors may have been driven by\_\_\_\_\_.
  - a. unconditional reinforcement
  - b. dissociative fugue
  - c. diffusion of responsibility
  - d. unconscious bias

5. A researcher conducted a research study on a new and safe learning intervention with college-aged students who have never been diagnosed with a learning disability. The study, which is the only one of its kind, used random assignment and adequate controls. The results of this study suggested the intervention was effective in improving test performance among college-aged students. Which of the following would be an UNETHICAL follow-up to this one research study?
  - a. Repeating the study, in full, to determine whether the results would replicate in other samples of college-aged students and then publishing the results in a scientific journal.
  - b. Recruiting samples of children with and without learning disabilities for research purposes to see if the same effects are observed.
  - c. Conducting a similar research study with college-aged students and providing them with a small, monetary payment for their time.
  - d. Selling the learning intervention to schools with small children with learning disabilities as a substitute for well-established evidence-based interventions from experienced specialists.
  
6. Horace is studying the effects of spanking on children. By asking parents how often each child is spanked and examining their grades, Horace finds a negative correlation. What do these results indicate?
  - a. Children who are spanked more tend to have lower grades than children who are spanked less.
  - b. Children who are spanked less tend to have lower grades than children who are spanked more.
  - c. Children who are spanked more tend to have higher grades than children who are spanked less.
  - d. Children who have lower grades tend to be spanked less than children with higher grades.
  
7. Chris is writing an essay where they are applying the principles of Piaget's theory to explain cognitive development in third-grade children. Which of the following concepts are likely to be most emphasized in their essay?
  - a. the id and superego.
  - b. zones of proximal development.
  - c. accommodation and assimilation.
  - d. a central executive.
  
8. Your instructor is preparing a lecture that includes tips on good study habits. Which of the following study strategies has good evidence from the psychological sciences for improving exam performance?
  - a. Keep information fresh by only reading the textbook right before the exam.
  - b. Elaborate as you learn with meaningful visualizations or by relating the information to yourself.
  - c. Write out (not type) textbook contents word-for-word, at a rate of 10 pages per day.
  - d. Minimize distractions by not taking notes during lectures.

Name: \_\_\_\_\_

**PSY 2050**  
**Stats Quiz 4 – Chi Square**

**Instructions:** You will have 20 minutes to complete this quiz. Write in the correct answer for each part of the question, **showing your calculations!** The quiz is worth 10 points total. Good luck!

The chi-square critical values table is on the last page.

**Remember,** there are two different types of chi-square analyses that are used for different types of RQs. You will notice that there is only 1 RQ/problem to solve here. **HINT:** Your first step should be to decide which type of chi-square analysis is appropriate for the RQ.

\*\*\*\*\*

**Formulas:**

$$\chi^2 = \sum \frac{(O - E)^2}{E} \qquad E = \left(\frac{R}{N}\right)(C)$$

**Problem:**

Researchers are interested if exercising is dependent on eating breakfast. They collect data from 75 people, asking them if they eat breakfast or not and if they exercise later in the day or not. They find the following data:

- No Breakfast, Exercises: 10
- No Breakfast, Does not exercise: 30
- Eats Breakfast, Exercises: 25
- Eats Breakfast, Does not exercise: 10

**Use this data to compute and interpret the appropriate chi-square test.**  
(HINT: round the expected values you calculate to 2 decimal places.)

**Contingency Table:**

	Breakfast	No Breakfast	Total
Exercise			
No Exercise			
Total			

**Chi-square computation:**

	O	E	(O - E)	(O - E) <sup>2</sup>	(O - E) <sup>2</sup> /E
No Breakfast, Exercises					
No Breakfast, Does not exercise					
Eats Breakfast, Exercises					
Eats Breakfast, Does not exercise					
					Sum =

**Test-of-Independence  $\chi^2$ :** \_\_\_\_\_

**Is it significant? ( $\alpha = .05$ ):** Table on last page.

$$df = (N_{\text{columns}} - 1) * (N_{\text{rows}} - 1)$$

**Interpretation: Describe the findings from the data** (including if the variables are dependent/independent, was your  $\chi^2$  value significant or not, and either frequencies or percents that demonstrate the dependence/independence of the variables)

<i>df</i>	0.995	0.990	0.975	0.950	0.900	0.750	0.500	0.250	0.100	0.050	0.025	0.010	0.005
1	0.00	0.00	0.00	0.00	0.02	0.10	0.45	1.32	2.71	3.84	5.02	6.63	7.88
2	0.01	0.02	0.05	0.10	0.21	0.58	1.39	2.77	4.61	5.99	7.38	9.21	10.60
3	0.07	0.11	0.22	0.35	0.58	1.21	2.37	4.11	6.25	7.82	9.35	11.35	12.84
4	0.21	0.30	0.48	0.71	1.06	1.92	3.36	5.39	7.78	9.49	11.14	13.28	14.86
5	0.41	0.55	0.83	1.15	1.61	2.67	4.35	6.63	9.24	11.07	12.83	15.09	16.75
6	0.68	0.87	1.24	1.64	2.20	3.45	5.35	7.84	10.64	12.59	14.45	16.81	18.55
7	0.99	1.24	1.69	2.17	2.83	4.25	6.35	9.04	12.02	14.07	16.01	18.48	20.28
8	1.34	1.65	2.18	2.73	3.49	5.07	7.34	10.22	13.36	15.51	17.54	20.09	21.96
9	1.73	2.09	2.70	3.33	4.17	5.90	8.34	11.39	14.68	16.92	19.02	21.66	23.59
10	2.15	2.56	3.25	3.94	4.87	6.74	9.34	12.55	15.99	18.31	20.48	23.21	25.19
11	2.60	3.05	3.82	4.57	5.58	7.58	10.34	13.70	17.28	19.68	21.92	24.72	26.75
12	3.07	3.57	4.40	5.23	6.30	8.44	11.34	14.85	18.55	21.03	23.34	26.21	28.30
13	3.56	4.11	5.01	5.89	7.04	9.30	12.34	15.98	19.81	22.36	24.74	27.69	29.82
14	4.07	4.66	5.63	6.57	7.79	10.17	13.34	17.12	21.06	23.69	26.12	29.14	31.31
15	4.60	5.23	6.26	7.26	8.55	11.04	14.34	18.25	22.31	25.00	27.49	30.58	32.80
16	5.14	5.81	6.91	7.96	9.31	11.91	15.34	19.37	23.54	26.30	28.85	32.00	34.27
17	5.70	6.41	7.56	8.67	10.09	12.79	16.34	20.49	24.77	27.59	30.19	33.41	35.72
18	6.26	7.01	8.23	9.39	10.86	13.68	17.34	21.60	25.99	28.87	31.53	34.81	37.15
19	6.84	7.63	8.91	10.12	11.65	14.56	18.34	22.72	27.20	30.14	32.85	36.19	38.58
20	7.43	8.26	9.59	10.85	12.44	15.45	19.34	23.83	28.41	31.41	34.17	37.56	40.00
21	8.03	8.90	10.28	11.59	13.24	16.34	20.34	24.93	29.62	32.67	35.48	38.93	41.40
22	8.64	9.54	10.98	12.34	14.04	17.24	21.34	26.04	30.81	33.93	36.78	40.29	42.80
23	9.26	10.19	11.69	13.09	14.85	18.14	22.34	27.14	32.01	35.17	38.08	41.64	44.18
24	9.88	10.86	12.40	13.85	15.66	19.04	23.34	28.24	33.20	36.42	39.37	42.98	45.56
25	10.52	11.52	13.12	14.61	16.47	19.94	24.34	29.34	34.38	37.65	40.65	44.32	46.93
26	11.16	12.20	13.84	15.38	17.29	20.84	25.34	30.43	35.56	38.89	41.92	45.64	48.29
27	11.80	12.88	14.57	16.15	18.11	21.75	26.34	31.53	36.74	40.11	43.20	46.96	49.64
28	12.46	13.56	15.31	16.93	18.94	22.66	27.34	32.62	37.92	41.34	44.46	48.28	50.99
29	13.12	14.26	16.05	17.71	19.77	23.57	28.34	33.71	39.09	42.56	45.72	49.59	52.34
30	13.78	14.95	16.79	18.49	20.60	24.48	29.34	34.80	40.26	43.77	46.98	50.89	53.67
40	20.67	22.14	24.42	26.51	29.06	33.67	39.34	45.61	51.80	55.75	59.34	63.71	66.80
50	27.96	29.68	32.35	34.76	37.69	42.95	49.34	56.33	63.16	67.50	71.42	76.17	79.52
60	35.50	37.46	40.47	43.19	46.46	52.30	59.34	66.98	74.39	79.08	83.30	88.40	91.98
70	43.25	45.42	48.75	51.74	55.33	61.70	69.34	77.57	85.52	90.53	95.03	100.44	104.24
80	51.14	53.52	57.15	60.39	64.28	71.15	79.34	88.13	96.57	101.88	106.63	112.34	116.35
90	59.17	61.74	65.64	69.13	73.29	80.63	89.33	98.65	107.56	113.14	118.14	124.13	128.32
100	67.30	70.05	74.22	77.93	82.36	90.14	99.33	109.14	118.49	124.34	129.56	135.82	140.19

Name: \_\_\_\_\_

**PSY 2050**  
**Stats Quiz 3 – Correlation (10 pts)**

**Instructions:** You will have 20 minutes to complete this quiz. Write in the correct answer for each part of the question, **showing your calculations!** Each question is worth 2 point (10 points total). Good luck!

The Pearson  $r$  critical values table is on the last page.

**Formulas:**

$$Z = \frac{X - \bar{X}}{SD} \qquad r = \frac{\Sigma(z_x z_y)}{N}$$

**Problem:**

<i>Participant ID</i>	<i>Hrs. spent watching Netflix (X)</i>	<i>Test scores (Y)</i>
1	5	80
2	4	89
3	0	96
4	8	77
5	1	94
6	.5	92

a) Sketch out a scatterplot of the data for hours watching Netflix and test scores below.

b) Before computing the correlation coefficient, estimate the direction and strength of the correlation.

- c) Compute the correlation coefficient for hours spent watching Netflix and test scores based on the data below.

Hours of Netflix: Mean = 3.08      SD = 3.14

Test scores: Mean = 88      SD = 7.77

<i>Participant ID</i>	<i>Hrs. spent watching Netflix (X)</i>	$X - \bar{X}$	$Z_x$	<i>Test scores (Y)</i>	$Y - \bar{Y}$	$Z_y$	$Z_x * Z_y$
1	5			80			
2	4			89			
3	0			96			
4	8			77			
5	1			94			
6	.5			92			

$r =$  \_\_\_\_\_

- d) Is this a significant correlation (at the  $\alpha = .05$  level)? \_\_\_\_\_

- e) What does this correlation mean? (describe your findings from the data)

Values of  $r$  for the .05 and .01 Levels of Significance

$df(N - 2)$	.05	.01	$df(N - 2)$	.05	.01
1	.997	1.000	31	.344	.442
2	.950	.990	32	.339	.436
3	.878	.959	33	.334	.430
4	.812	.917	34	.329	.424
5	.755	.875	35	.325	.418
6	.707	.834	36	.320	.413
7	.666	.798	37	.316	.408
8	.632	.765	38	.312	.403
9	.602	.735	39	.308	.398
10	.576	.708	40	.304	.393
11	.553	.684	41	.301	.389
12	.533	.661	42	.297	.384
13	.514	.641	43	.294	.380
14	.497	.623	44	.291	.376
15	.482	.606	45	.288	.372
16	.468	.590	46	.285	.368
17	.456	.575	47	.282	.365
18	.444	.562	48	.279	.361
19	.433	.549	49	.276	.358
20	.423	.537	50	.273	.354
21	.413	.526	60	.250	.325
22	.404	.515	70	.232	.302
23	.396	.505	80	.217	.283
24	.388	.496	90	.205	.267
25	.381	.487	100	.195	.254
26	.374	.479	200	.138	.181
27	.367	.471	300	.113	.148
28	.361	.463	400	.098	.128
29	.355	.456	500	.088	.115
30	.349	.449	1000	.062	.081

## Reading Quiz – Descriptive Stats

Text book pages: Stats module 3 pg. 419-422

The \_\_\_\_\_ is the only central tendency measure that is appropriate to use for qualitative variables. (1.5pts)

Mean

Median

Mode\*

The \_\_\_\_\_ is the only measure of central tendency that uses all the numeric information in the distribution of scores. (1.5pts)

Mean\*

Median

Mode

The \_\_\_\_\_ is less sensitive to extreme scores, but does not use all the information in a distribution of scores. (1.5pts)

Mean

Median\*

Mode

What is/are the mode(s) of the following numbers? (1.5pts) – make mult. Choice w/ mult selection.

7,9,3,1,10,3,7,8

3 & 7

What is the median of the following numbers? (1.5pts)

**3,5,4,8,1,8,6,9**

**Ordered: 1,3,4,5,6,8,8,9**

**5.5**

What is the arithmetic mean of the following numbers? (1.5pts) (selected “contains” 4.7 in case of rounding errors)

**2,10,1,6,7,1,9,1,6 1,1,1,2,6,6,7,10**

**4.78**

**1. I read Stats Module 3. (1pt)**

**a. Yes\***

**b. No**

Name: \_\_\_\_\_

**PSY 2050**  
**Final Stats Quiz**

**Instructions:** You will have 75 minutes to complete this quiz. The quiz is worth 20 points total.

You will need to select the appropriate statistical test for each research scenario, and then select the correct formula(s) from the formula sheet to do the appropriate calculations. Write in the correct answer for each part of the question, showing your calculations!

**When interpreting the results of your statistical test, be sure to include:**

- 1) Was it significant?
- 2) What do the test and significance (or non-significance) tell us?
- 3) Include means, frequencies, etc. where appropriate to describe the relationships between variables.

**Good luck!**

1. An educational psychologist hypothesizes that there might be a relationship between class size and test scores among high school students. The researcher collects data on the average class size and average test scores at 5 high schools. The data the researcher collected is below:

<i>School</i>	<i>Class Size</i>	<i>Test scores</i>
Main Street	25	80
Casat	14	98
Harland	33	50
Shady Grove	20	82
Jefferson	20	92

**a. Compute the Mean for each variable: (1pt)**

Class Size Mean ( $\bar{X}$ ): \_\_\_\_\_

Test Scores Mean ( $\bar{Y}$ ): \_\_\_\_\_

**b. Compute the SD for each variable: (2pts)**

Variance ( $s^2$ ) calculation table:

Class Size (X)	$X - \bar{X}$	$(X - \bar{X})^2$	Test Scores (Y)	$Y - \bar{Y}$	$(Y - \bar{Y})^2$
	$\sum(X - \bar{X})^2 =$			$\sum(Y - \bar{Y})^2 =$	
	$\frac{\sum(X - \bar{X})^2}{N} =$			$\frac{\sum(Y - \bar{Y})^2}{N} =$	

Class Size SD = \_\_\_\_\_

Test Scores SD = \_\_\_\_\_

c. Which statistical test should be calculated? (1pt)

d. Calculate that test. (2pts)

<i>Variable (X)</i>	$X - \bar{X}$	$Z_x$	<i>Variable (Y)</i>	$Y - \bar{Y}$	$Z_y$	$Z_x * Z_y$
						$\sum(Z_x * Z_y) =$

Test Value: \_\_\_\_\_

e. Interpret the results (Is it significant, what does that mean, etc.?) (2pts)



3. A biologist studying African grassland animals knows that the fastest recorded speed for a cheetah is 61mph and the fastest recorded speed for a gazelle is 60mph. The researcher is curious which animal is faster on average, or if the animals are about equal in average speed. The biologist records the time (in seconds) it takes for 20 different cheetahs and 20 different gazelles to run a 100-meter distance. The biologist finds that the average speed for the cheetahs to run 100 meters is 8.25 seconds (SD = 1.20 seconds) and the average speed for the gazelles to run 100 meters is 6.10 seconds (SD = 1.45 seconds).

**a. What are the researcher's null and alternative hypotheses? (1pt)**

$H_0$ :

$H_A$ :

**b. Which statistical test should be calculated? (1pt)**

**c. Calculate that test. (2pts)**

**HINT:**  $SD^2 = s^2$  (variance)

$$s^2 * N = SS$$

**OR:**  $SS = (SD^2) * N$

Test Value: \_\_\_\_\_

**d. Interpret the results (Is it significant, what does that mean, etc.?) (3pts)**

**e. Draw a bar graph to visualize the average speeds for the animals. (1pt)**

## Readings Quiz: Levels of Measurement

- What level of measurement are applied in the following examples?
- What is your religion's affiliation? CODING: (1) = Catholic, (2) = Protestant, (3) = Jewish, (4) = Muslim, (5) = Hindu, 6 = other, 7 = none
  - **Nominal**
- How often do you attend religious services? CODING: (1) = not at all, (2) = less than once a year, (3) = 1-12 times a year, (4) = more than once a month
  - **Ordinal**
- Are you currently in a long term relationship? CODING: (1) = yes, (2) = no
  - **Nominal**
- If you are currently in a long term relationship, how many years have you and your partner been together? CODING: whatever number is reported
  - **Ratio**
- How satisfied were you with your high school education? CODING: (-2) very unsatisfied, (-1) unsatisfied, (0) neither satisfied or unsatisfied, (1) satisfied, (2) very satisfied
  - **Ordinal**
- What time (on a 12-hour clock) do you eat your first meal of the day? CODING: time of day as reported
  - **Interval**
- Why is it important for researchers to carefully evaluate the level of measurement that they use in their research?
  - It helps them avoid problems with stability of measurements
  - **It helps them pick the best type of statistical analysis to use**
  - Given that only interval and ratio data provide statistically useful information, they can avoid wasting their time with meaningless data
  - All of the above
- There is an ongoing debate among psychologists as to what type of measurement scale is actually used when assessing characteristics such as personality. What two scales of measurement are at the center of this debate? Furthermore, can we assume that personality test scores of 25 versus 20 and 30 versus 25 convey psychologically equal intervals in the extent to which people have a specific personality trait?

Name: \_\_\_\_\_

**PSY 2050**  
**Stats Quiz 4 – T-Test**

**Instructions: You will have 25 minutes to complete this quiz. Write in the correct answer for each part of the question, showing your calculations! The quiz is worth 10 points total. Good luck!**

Imagine you are a researcher interested in how parental involvement affects childhood aggression after exposure to violent media. Specifically, you want to know if children's behavior would be less aggressive after viewing a violent cartoon with an aggression disapproving adult (ADA) than with a silent adult (control). To test this, your research team randomly assigned third graders (6 boys, 10 girls) to either the ADA or control condition and then had the children watch a violent cartoon clip. Afterwards, the children played with a variety of toys while observers recorded their verbal aggression using a 30 second time-sampling method. Your data yielded the following results:

Control condition (N= 8, M= 1.50, SD = 1.30)

ADA condition (N= 8, M=0.25, SD= 0.46)

(Note: higher scores indicate more aggression)

Conduct the appropriate statistical test to answer your research question, addressing each of the five steps below:

**1. Hypothesis testing:**

$H_0 =$

$H_A =$

**2. Significance level (given to you here).**

$\alpha =$  0.05

**3. Calculate test statistic** (equation on last page)

$$t = \underline{\hspace{2cm}}$$

**4. Find the critical value** (table on last page)

$$\alpha = \underline{\hspace{2cm}}$$

$$df = (n_1 + n_2) - 2 = \underline{\hspace{2cm}}$$

$$T_{crit} = \underline{\hspace{2cm}}$$

**5. Interpretation**

- Was it significant (reject or fail to reject null)? What does this mean?
- Write up the interpretation in APA style (remember to include group means & SD)
- *HINT: Be sure to think about the metric the DV is in (i.e., higher scores = more aggression)*

## Formulas

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{\frac{SS_1 + SS_2}{n(n-1)}}}$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SS_1 + SS_2}{(n_1 - 1) + (n_2 - 1)} * \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$S^2 = SD^2$$

$$SS = S^2 * n$$

$$df = (n_1 + n_2) - 2$$

*Instructions for use:* To find a value of  $t$ , locate the row in the left-hand column of the table corresponding to the number of degrees of freedom ( $df$ ) associated with the standard error of the mean, and select the value of  $t$  listed for your choice of  $\alpha$ . The value given in the column labeled  $\alpha = .05$  is used in the calculation of the 95% confidence interval, and the value given in the column labeled  $\alpha = .01$  is used to calculate the 99% confidence interval.

$df$	$\alpha = .05$	$\alpha = .01$	$df$	$\alpha = .05$	$\alpha = .01$
1	12.71	63.66	18	2.10	2.88
2	4.30	9.92	19	2.09	2.86
3	3.18	5.84	20	2.09	2.84
4	2.78	4.60	21	2.08	2.83
5	2.57	4.03	22	2.07	2.82
6	2.45	3.71	23	2.07	2.81
7	2.36	3.50	24	2.06	2.80
8	2.31	3.36	25	2.06	2.79
9	2.26	3.25	26	2.06	2.78
10	2.23	3.17	27	2.05	2.77
11	2.20	3.11	28	2.05	2.76
12	2.18	3.06	29	2.04	2.76
13	2.16	3.01	30	2.04	2.75
14	2.14	2.98	40	2.02	2.70
15	2.13	2.95	60	2.00	2.66
16	2.12	2.92	120	1.98	2.62
17	2.11	2.90	Infinity	1.96	2.58

\*This table is adapted from Table 12 in *Biometrika tables for statisticians*, vol. 1 (3d ed.), New York: Cambridge University Press, 1970, edited by E. S. Pearson and H. O. Hartley, by permission of the *Biometrika* Trustees.

### Quiz 1

Name: \_\_\_\_\_

$$Z = \frac{X - \bar{X}}{SD}$$

1. Sruti works with patients who have recently been diagnosed with Alzheimer's disease. From her graduate school education, she knows that individuals diagnosed with Alzheimer's disease typically have impaired executive functioning. To test this, she conducts assessments of executive functioning with all of her patients and with a group of healthy individuals. Sruti then compares the scores of those who have been diagnosed with Alzheimer's disease and those who are healthy.

- a) What is Sruti's null hypothesis?
  
  - b) What is her alternative hypothesis?
  
  - c) Both the null and alternative hypotheses are concerned with the relationship of variables in the \_\_\_\_\_. (circle one below)
    - i. Sample
    - ii. Population
    - iii. Experimental group
    - iv. Control group
2. Karl is interested in being in Sruti's study. To classify his current cognitive status, Karl took a cognitive abilities test and earned a score of 45. The overall mean on this test for participants without Alzheimer's disease is 52 and the standard deviation is 5. A higher score indicates better cognitive abilities.
- a) Calculate the Karl's z score.

- b) If a patient needs to be more than 2 standard deviations below the mean to be diagnosed with Alzheimer's disease, what do the above results suggest?

\*\*\*Show your work!

- c) If all of Sruti's healthy patients had significantly higher executive functioning scores compared to the patients diagnosed with Alzheimer's disease, which of the following would the researcher do?
- i. Reject the null hypothesis
  - ii. Accept the null hypothesis
  - iii. Fail to reject the null hypothesis
- d) What does it mean to reject the null hypothesis?

2. A established intelligence test has a mean of 100 and a standard deviation of 16. Isaac Newton reportedly had an IQ score of 190.

- a. Convert Newton's IQ score to a z score.
  
  
  
  
  
  
  
  
  
  
- b. If we consider "usual" IQ scores to be those that convert to z scores between -2 and 2, is Newton's IQ usual or unusual?
  
  
  
  
  
  
  
  
  
  
- c. If another person's IQ was tested and they had a z score of -3, what would be their IQ?

3. Equivalent forms of a stress test are given to three different groups of psychology students. The mean for the stress test for each group are as follows: Group 1 = 128, Group 2 = 86, Group 3 = 15. Would we be able to compare the Z scores of students from different groups, even though they took tests with different group means? Why or why not?

# PSY4960 Spring 2021

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## Start of Block: Default Question Block

Q1 The purpose of this instrument is for the direct assessment of Advanced Research Methods and Statistics. Please read the journal article posted on blackboard and answer the following questions. Thank you for your cooperation.

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Q2 Indicate your major

- BA Psychology (1)
  - BS Psychology (2)
  - BS Neuroscience (3)
- 

Q3 Q1 Did the driver have a fake beer in his hand in all conditions?

- Yes (1)
  - No (2)
- 

Q4 Q2 Identify the conditions/cells in this experiment:

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Q5 Q3 Identify the primary dependent variable (DV):

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Q6 Q4a Was there a statistically significant difference between groups?

Yes (1)

No (2)

*Display This Question:*

*If Q4a Was there a statistically significant difference between groups? = Yes*

Q7 Q4b At what probability level was the statistical significance?

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Page Break

Q8 Q5 Give **three** examples of deception used in the study.

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Q10 Q5a First example of deception.

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Q11 Q5b Second example of deception.

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Q12 Q5c Third example of deception.

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Page Break



Q9 Q6 Identify three factors that impact the generalizability of the results. **Explain why for each factor.**

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Q14 Q6a Factor 1 that impacts the generalizability and why.

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Q13 Q6b Factor 2 that impacts the generalizability and why.

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Q15 Q6c Factor 3 that impacts the generalizability and why.

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Page Break

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Q16 Q7 Describe (do not simply name them) 2 methodological weaknesses of the design of the study other than generalizability.

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Q17 Description of methodological weakness 1.

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Q18 Description of methodological weakness 2.

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Page Break

Q19 Q8 Should the reader conclude that peer conformity causes one to be more likely to ride with an intoxicated driver?

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Q20 Q9 Discuss the implications of this study's results.

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Q21 Q10 Write how this article would appear in an APA formatted reference page.

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End of Block: Default Question Block

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# Graduating Psychology Major Survey: Spring 2021

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Start of Block: Default Question Block

Intro

**Saint Louis University**

**Graduating Psychology Major Survey** *The SLU Psychology Department is pleased to count you among our majors who will be graduating this year. We would like to know your perceptions about the education and experiences you acquired as a psychology major. Your answers to this survey will be confidential. We appreciate your cooperation in completing this survey which will enable us to review the effectiveness of the Psychology Undergraduate Studies Program and determine how we might improve in the future.*

End of Block: Default Question Block

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Start of Block: Section 1

Descrip1 **Section I.**

**In this section, we would like you to rate your satisfaction with various aspects of the Psychology Department curriculum and courses. Please provide your responses to the items below. You are welcome to provide additional comments about any of these items at the end of this survey.**

---

Q1 1. Number and variety of psychology courses that were available.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q2 2. Scheduling (days and times) of psychology courses.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q3 3. Instruction about the range of specialties within the field of psychology.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q4 4. Instruction through active learning experiences (e.g. group projects, discussion, field experiences) in psychology courses.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q5 5. Instruction about writing in psychology.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q6 6. Instruction about research methods and statistics.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q7 7. Instruction about individual and group differences in human behavior.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q8 8. Psychology career-related information provided through classes or coursework.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q9 9. Instruction about the application of psychological knowledge and methods to real-world problems and issues.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q10 10. Instructors' use of technology in psychology courses.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q11 11. Practice preparing and giving oral presentations in class.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q12 12. Diversity of cultural perspectives addressed in psychology classes.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q13 13. Interactions with your instructors.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q14 14. Rigor of grading practices in department.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q15 15. Overall quality or caliber of instruction in the department.

- Very Dissatisfied (1)
- Dissatisfied (2)
- Undecided (3)
- Satisfied (4)
- Very Satisfied (5)
- Not Applicable (6)

End of Block: Section 1

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Start of Block: Block 2

Descrip2 Section II.

In this section, we are interested in learning your comments about the academic advising you received and about other departmental opportunities. Please indicate the number that best describes your degree of satisfaction with each of the items below. Once again, feel free to provide additional written comments about any item at the end of this survey.

-----

Q16 16. Information you received about general requirements for the major in psychology.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q17 17. Overall availability of your psychology mentor to meet with you.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q18 18. Your psychology mentor's ability to help you clarify questions and find answers.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q19 19. Information about career paths in psychology provided by your psychology mentor.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q20 20. Advising you received about practicum field experiences for course credit (e.g. regular practicum or capstone practicum).

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q21 21. Advising you received about conducting research for course credit (e.g. in courses or capstone research project).

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q22 22. Information about how to change mentors.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q23 23. Pre-registration procedures in the department.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q24 24. Your participation in psychological research as a subject.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q25 25. Your participation in departmental research as a research assistant or experimenter.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q26 26. Faculty availability to write letters of recommendation for post-college education, training and/or employment.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
-

Q27 27. Information you received about requirements for graduate school in psychology.

- Very Dissatisfied (1)
  - Dissatisfied (2)
  - Undecided (3)
  - Satisfied (4)
  - Very Satisfied (5)
  - Not Applicable (6)
- 

Q28 28. Psychology-related special events outside the classroom (e.g. special speakers, events and activities hosted by Psi Chi).

- Very Dissatisfied (1)
- Dissatisfied (2)
- Undecided (3)
- Satisfied (4)
- Very Satisfied (5)
- Not Applicable (6)

**End of Block: Block 2**

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**Start of Block: Block 3**

Descrip3 Section III.

In this section, please evaluate to what extent your psychology courses have contributed to your knowledge, skills and personal development in the following areas. Please evaluate each item using the scale below.

---

Q29 29. Your familiarity with the major concepts, theories and empirical findings in psychology.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q30 30. Your familiarity with historical events and trends in psychology.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q31 31. Your ability to read and comprehend journal articles describing empirical findings from psychological research.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q32 32. Your ability to think critically and creatively about psychological issues and problems.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q33 33. Your ability to use a scientific approach to solving problems related to behavior and mental processes.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q34 34. Your understanding of basic research methods in psychology, including design principles, data analysis, and interpretation.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q35 35. Your understanding and ability to apply psychological principles to personal issues.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q36 36. Your ability to apply psychological knowledge to societal and/or institutional contexts.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q37 37. Your capacity to seek and weigh evidence when choosing courses of action.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q38 38. Your understanding of and ability to apply ethical principles that guide the field of psychology.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q39 39. Your competence using computers and other technology to access and evaluate psychology-related information.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q40 40. Your ability and confidence to make public presentations.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q41 41. Your ability to write clearly and effectively.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q42 42. Your understanding of and respect for people of other racial, ethnic or cultural backgrounds.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q43 43. Your knowledge about psychological strategies for self-management and self-improvement.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
- 

Q44 44. Your ability to use psychological knowledge, skills and values in your occupational pursuits.

- Not at all (1)
  - Very little (2)
  - Somewhat (3)
  - Quite a bit (4)
  - Very much (5)
  - Not Applicable (6)
-

Q45 45. Your ability to collaborate and work effectively with others to reach consensus, generate solutions or take effective action.

- Not at all (1)
- Very little (2)
- Somewhat (3)
- Quite a bit (4)
- Very much (5)
- Not Applicable (6)

End of Block: Block 3

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Start of Block: Block 4

Descrip4 Section IV.

In this section, please answer questions about yourself.

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Q46a 46a. Were you ever a member of ROTC while a student at SLU?

- Yes (23)
- No (24)

-----

Q46b 46b. Did you have military veteran status and/or were activity duty military while a student at SLU?

- Yes (1)
  - No (2)
-

Q83 46c. Which best describes your usage of SLU's Career Services Center?

- No usage: I never met with a career counselor at the center nor did I attend any of their events. (1)
  - I met with a career counselor at least once but never attended any of their events. (2)
  - I never met with a career counselor but I attended at least one of their events. (3)
  - I met with a career counselor at least once AND attended at least one of their events. (4)
- 

Q47a 47a. If you completed more than one major, was psychology your primary major?

- Yes (1)
  - No (2)
  - Psychology was my only major (3)
- 

Q47b 47b. Did you complete any minor(s) with your Psychology major

- Yes (1)
  - No (2)
- 

Q47c 47c. Did you combine your psychology major with a certificate (e.g., Women's Studies, Visual Communication, African-American Studies)?

- Yes (1)
  - No (2)
-

Q48 48. Based on what you know now, what do you expect your Overall GPA to be at the end of this semester?

- 2.99 or Lower (1)
  - Between 3.00 and 3.59 (2)
  - 3.60 or Higher (3)
- 

Q49 49. Did you complete a psychology-related practicum field experience for credit (e.g., a capstone practicum, PSY 4965 or 4870, or a regular practicum, PSY 4790)?

- Yes (1)
  - No (2)
- 

Q50 50. Did you ever work as a research assistant or experimenter for research conducted by psychology faculty or their graduate students?

- Yes (1)
  - No (2)
- 

Q51 51. Did you ever design and carry out research under the supervision of a psychology instructor either in a class or to satisfy your capstone requirement (e.g. PSY 4010, 4960, 4880, 4967, or 4800)?

- Yes (1)
- No (2)

**End of Block: Block 4**

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**Start of Block: Block 5**

**Section V. Now, we would like for you to tell us about your plans for after you graduate from SLU.**

---

Q52a 52a. Did you apply to a graduate program in Psychology for the upcoming academic year?

Yes (1)

No (2)

---

*Skip To: Q53a If 52a. Did you apply to a graduate program in Psychology for the upcoming academic year? = No*

*Display This Question:*

*If 52a. Did you apply to a graduate program in Psychology for the upcoming academic year? = Yes*

Q52b 52b. What programs or fields in Psychology best describes the program(s) to which you applied? (select all that apply)

- Clinical (1)
  - Counseling (2)
  - Developmental Psychology (3)
  - Cognitive Psychology (4)
  - Neuroscience (5)
  - Social Psychology (6)
  - Experimental Psychology (7)
  - School Psychology (8)
  - Industrial Organizational Psychology (9)
  - Other (please specify) (11)
- 

-----  
*Display This Question:*

*If 52a. Did you apply to a graduate program in Psychology for the upcoming academic year? = Yes*

Q52c 52c. What type of degree(s) in Psychology are you pursuing in the programs to which you applied?

- Master's degree (e.g. M.A. or M.S.) only (1)
  - Ph.D. (2)
  - Psy.D. (3)
  - Other (please specify) (4)
- 

*Display This Question:*

*If 52a. Did you apply to a graduate program in Psychology for the upcoming academic year? = Yes*

Q52d 52d. Which best represents your decision on what to do about one or more of these Psychology programs to which you applied?

- I was not accepted to any of the psychology programs (1)
  - I was accepted and will attend one of the psychology programs (2)
  - I was accepted but will not attend one of the psychology programs (please explain why) (3) \_\_\_\_\_
  - I am unsure as to whether or not I have been accepted to one of the psychology programs at this time (4)
- 

Q53a 53a. Did you apply to professional or graduate programs other than Psychology?

- Yes (1)
- No (2)

*Skip To: Q54a If 53a. Did you apply to professional or graduate programs other than Psychology? = No*

---

*Display This Question:*

*If 53a. Did you apply to professional or graduate programs other than Psychology? = Yes*

Q53b 53b. Which best describes the non-psychology programs to which you applied? (select all that apply)

- Medical School (1)
  - Nursing School (2)
  - Physical Therapy (3)
  - Occupational Therapy (4)
  - Law School (5)
  - Social Work (6)
  - Education (7)
  - Human Resource (8)
  - Business (9)
  - Public Health (10)
  - Law Enforcement (11)
  - Journalism (12)
  - Other (please specify) (13)
- 

*Display This Question:*

*If 53a. Did you apply to professional or graduate programs other than Psychology? = Yes*

Q53c 53c. Which best represents your decision on what to do about one or more of these non-Psychology programs to which you applied?

- I was not accepted to any of the non-psychology programs (1)
- I was accepted and will attend one of the non-psychology programs (2)
- I was accepted but will not attend one of the non-psychology programs (please explain why) (3) \_\_\_\_\_
- I am unsure as to whether or not I have been accepted into one of the non-psychology programs at this time (4)

---

*Display This Question:*

*If 52d. Which best represents your decision on what to do about one or more of these Psychology programs... != I was accepted and will attend one of the psychology programs*

*Or 53c. Which best represents your decision on what to do about one or more of these non-Psychology... != I was accepted and will attend one of the non-psychology programs*

Q54a

54. If you will not immediately continue your studies in a graduate or professional program in the year following graduation, are you planning to take a "gap" year?

A "gap" year in this instance refers to when students choose to defer applying to graduate, professional, or other educational programs for about a year.

- Uncertain at this time (1)
  - Yes, and then I plan on applying to a Psychology graduate program (2)
  - Yes, and then I plan on applying to a non-Psychology professional or graduate program (3)
  - Yes, but I am unsure what my next steps will be following the gap year (5)
  - No, I am not planning to take a gap year (4)
-

*Display This Question:*

*If 52d. Which best represents your decision on what to do about one or more of these Psychology prog... != I was accepted and will attend one of the psychology programs*

*Or 53c. Which best represents your decision on what to do about one or more of these non-Psychology... != I was accepted and will attend one of the non-psychology programs*

Q54 54b.If you will not immediately continue your studies in a graduate or professional program in the year following graduation, which of the pursuits below is closest to your plans following graduation? Please select all that apply.

- Uncertain at this time (1)
  - Human services or mental health fields (2)
  - Education or child care (3)
  - Health fields (4)
  - Human Resources (5)
  - Sales or retail (6)
  - Financial industry (7)
  - Military (8)
  - Police, fire protection, EMT, or other first responder (9)
  - Arts and entertainment fields (10)
  - Government (e.g. federal, state, or city) (11)
  - Travel (12)
  - Teach for America, Peace Corps, or other similar non-profit service (13)
  - Teach English Abroad (14)
  - Continue to take courses (16)
  - Other (please specify) (15)
-

Q80 55a. Thinking about your SLU Psychology courses during this pandemic year, indicate which best describes the format(s) of the Psychology courses you enrolled in during the Fall 2020 and Spring 2021 semester?

- I attended all of my SLU Psychology courses remotely. (1)
  - I attended all of my SLU Psychology courses in-person. (2)
  - I attended some of my SLU Psychology courses remotely and some of my SLU Psychology courses in-person. (3)
  - I did not take any SLU Psychology courses this academic year. (4)
- 

Q88 55b. Thinking about the past academic year (Fall 2020 and Spring 2021), what format would you have *preferred* for the Psychology courses you took.

- Online (remote only) (1)
  - In-person (2)
  - Hybrid or flex (in-person, but online when needed) (3)
  - I did not take any SLU Psychology courses this academic year. (4)
- 

Q89 55c. If you had another year at SLU and were required to take another Psychology course, what format would you prefer the course to be in?

- Online (remote only) (1)
  - In-person (2)
  - Hybrid or flex (in-person, but online when needed) (3)
-

*Display This Question:*

*If 55a. Thinking about your SLU Psychology courses during this pandemic year, indicate which best de... != I did not take any SLU Psychology courses this academic year.*

Q81 55d1. Which statement reflects how pandemic-related disruptions impacted your studies in Psychology courses at SLU.

- My studies in Psychology courses were mostly impacted in POSITIVE ways as a result of pandemic-related disruptions. (1)
  - My studies in Psychology courses were mostly impacted in NEGATIVE ways as a result of pandemic-related disruptions. (2)
  - My studies in Psychology courses were impacted significantly in POSITIVE and NEGATIVE ways as a result of pandemic-related disruptions. (6)
  - My studies in Psychology courses were impacted, but mostly in NEUTRAL ways as a result of pandemic-related disruptions. (3)
  - My studies in Psychology courses were not impacted by pandemic-related disruptions. (4)
  - Other (please describe): (5)
- 

*Display This Question:*

*If 55d1. Which statement reflects how pandemic-related disruptions impacted your studies in Psycholo... = My studies in Psychology courses were mostly impacted in POSITIVE ways as a result of pandemic-related disruptions.*

Q86 55d1a. You indicated that your studies in Psychology courses were mostly impacted in POSITIVE ways as a result of pandemic-related disruptions. We are interested in hearing more about that. Please feel free to use this space to share your thoughts about the positive impacts without disclosing personal health information.

---

*Display This Question:*

*If 55d1. Which statement reflects how pandemic-related disruptions impacted your studies in Psycholo... = My studies in Psychology courses were mostly impacted in NEGATIVE ways as a result of pandemic-related disruptions.*

Q85 55d1b. You indicated that your studies in Psychology courses were mostly impacted in NEGATIVE ways as a result of pandemic-related disruptions. We are interested in hearing more about that. Please feel free to use this space to share your thoughts about the negative impacts without disclosing personal health information.

---

*Display This Question:*

*If 55d1. Which statement reflects how pandemic-related disruptions impacted your studies in Psycholo... = My studies in Psychology courses were impacted significantly in POSITIVE and NEGATIVE ways as a result of pandemic-related disruptions.*

Q87 55d1c. You indicated that your studies in Psychology courses were impacted in both POSITIVE and NEGATIVE ways as a result of pandemic-related disruptions. We are interested in hearing more about that. Please feel free to use this space to share your thoughts about the positive and negative impacts without disclosing personal health information.

---

Q82 55e. Which statement reflects how pandemic-related disruptions impacted your future career plans.

- My career plans generally changed in a POSITIVE way as a result of pandemic-related disruptions. (1)
  - My career plans generally in a NEGATIVE way as a result of pandemic-related disruptions. (2)
  - My career plans generally in a NEUTRAL way as a result of pandemic-related disruptions. (3)
  - My career plans were not impacted by pandemic-related disruptions. (4)
  - Other (please describe): (5)
-

Q55 Please feel free to share any additional comments about the items on this survey or other aspects of your experiences as a psychology major in the space below.

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**Thank you for taking the time to complete this survey.**

**Best wishes for your continued success in the future.**

**When you submit this form, you will be directed to a separate survey to provide your contact information if you wish to be included in our Department alumni listing.**

End of Block: Block 5

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