

## Assessment: Psychology 100 - General Psychology

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**COURSE ADDRESSED:** General Psychology (PSYC& 100), a 5-credit survey course taken by both those choosing Psychology as a major and students who may use it to fulfill Social Science graduation requirements.

**PROJECT DESCRIPTION:** At Shoreline, Psychology 100 is offered every quarter in multiple formats: face-to-face, hybrid, online, and as an Interdisciplinary class (Get in Gear). In addition, Social Science class caps allow a large numbers of students take this class every quarter (est. 150-200 students/quarter). As such it provides several unique opportunities for assessment: first, a chance to validate that student learning aligns with the master course outline (specifically Outcome 2 and 3, see below); second, the opportunity to determine goals are accomplished across class modalities and formats; third, a look to determine if full-time faculty and adjunct faculty are achieving the same goals in terms of learning outcomes.

**Core explanation of behavior** (Outcomes 2): Describe, compare, and contrast the core explanations for behavior offered by the following major perspectives in psychology: Biological, Psychodynamic, Behavioral, Humanistic, Cognitive, and Sociocultural

**Methods** (Outcome 3): Identify the typical steps involved in and key assumptions of the scientific method relate these steps to the scientific study of behavior conducted by academic psychologists and to critical thinking in general.

**METHODS:** Students in sections of Psychology 100 during Winter 2016 were recruited to participate for course credit [correct?]. Students took a pre-test during the first week of the quarter, and in week 10 of the quarter. The assessment contained 25 questions and was administered online using Survey Monkey.

### RESULTS:

Analysis of learning across students

176 students took the pre-test, and of those students, 99 students took the post-test (Table Count). The rate of learning was calculated by subtracting the percent correct on the pre-test from the percent correct on the post-test. On average, students improved by 10.9% on the post-test (Table Learning, Figure Learning). Full time faculty taught Face to Face and Get in Gear courses, and part time faculty taught Hybrid and Online courses.

**Table Count. Number of students who took the Pre-and Post-test.**

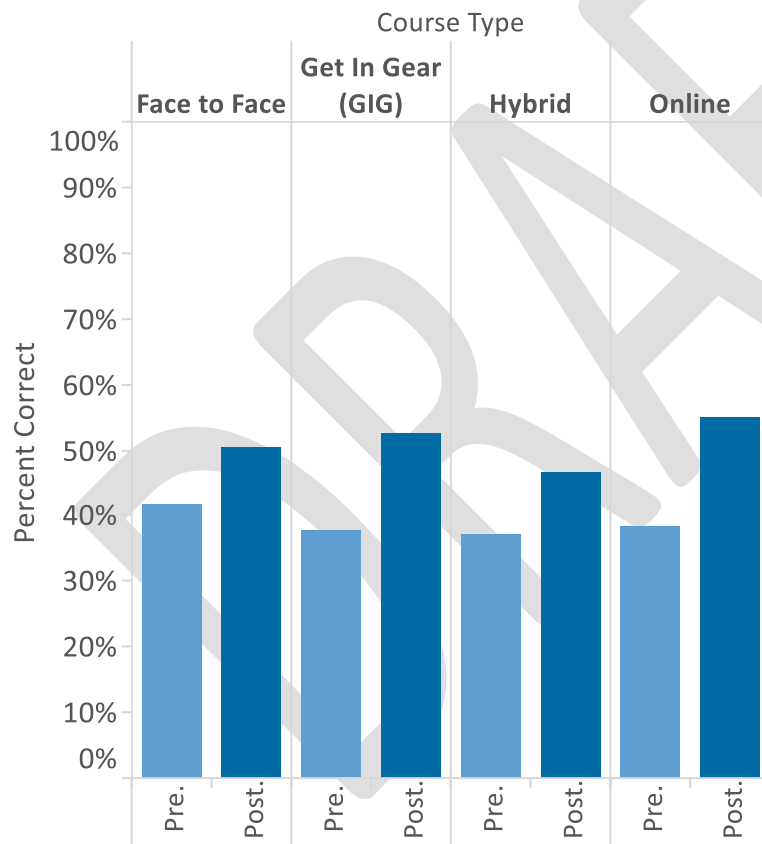
Course Type	Pre-test	Post-test
Face to Face	64	42
Get In Gear (GIG)	17	7
Hybrid	48	32
Online	47	18
Grand Total	176	99

**Table Learning. Percentage change from Pre-to Post-test.**

Course Type	
Face to Face	8.9%
Get In Gear (GIG)	14.9%
Hybrid	9.5%
Online	16.7%
Grand Average	10.9%

**Figure Learning. Learning change from pre- to post-test by course type. Chance performance was 20%.**

[Clarify N]



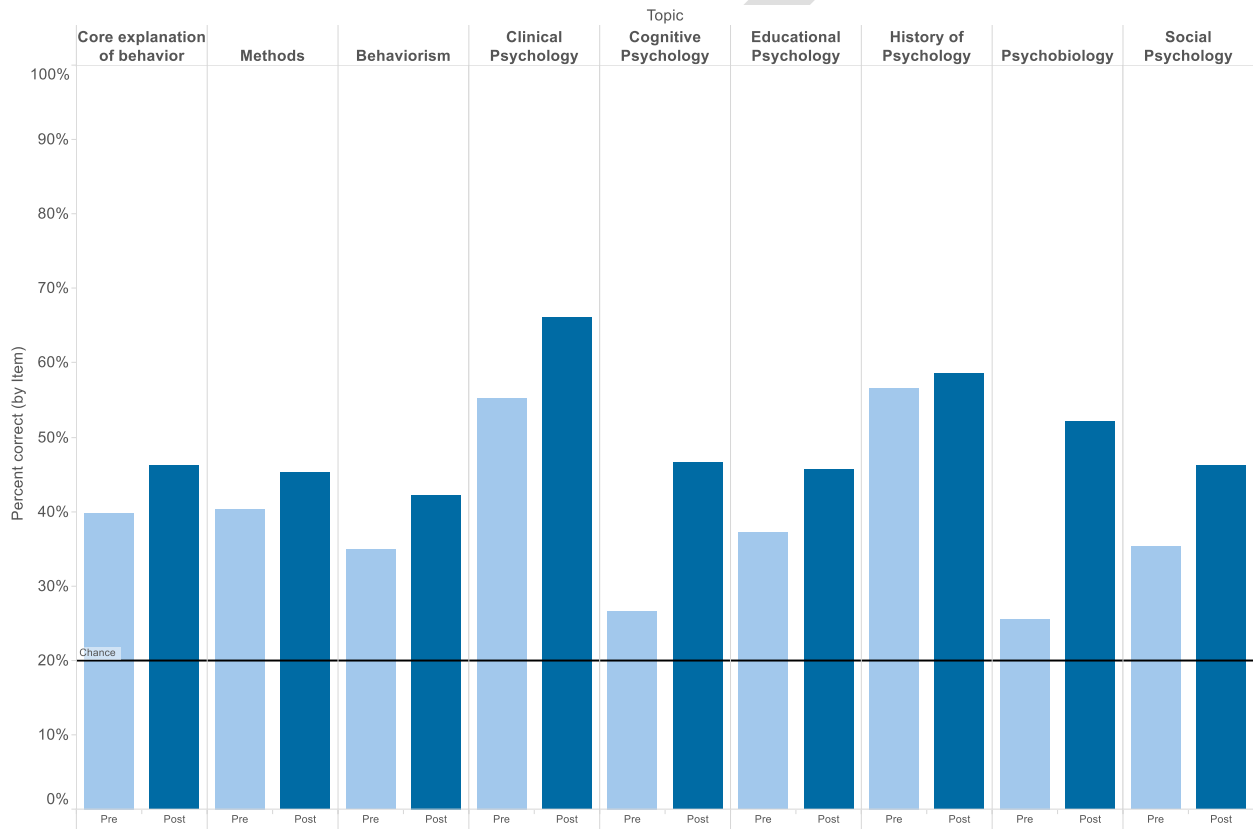
#### Analysis of learning by assessment question

We also examined learning across the assessment by question. We grouped items on the assessment by Master Course Outline (MCO) outcomes. Knowledge of the core explanation of behavior (Outcome 2) related to 5 questions, and knowledge of methods (Outcome 3) related to 2 questions. Questions that did not relate to outcomes 2 or 3 were grouped by topic (Appendix 1): behaviorism (1 question), clinical

psychology (5 questions), cognitive psychology (3 questions), educational psychology (2 questions), history of psychology (1 question), psychobiology (3 questions), and social psychology (3 questions).

This item analysis confirmed that overall learning averaged about 11% (Appendix 1). Specifically for the questions related to master course outcomes 2 and 3, students on average improved 6% for core explanation of behavior and 5% for methods (Figure Item Analysis). The most growth was seen in the topics cognitive psychology (20%) and psychobiology (26%). There was no growth in the history of psychology, but students' knowledge at pre-test was high (57%).

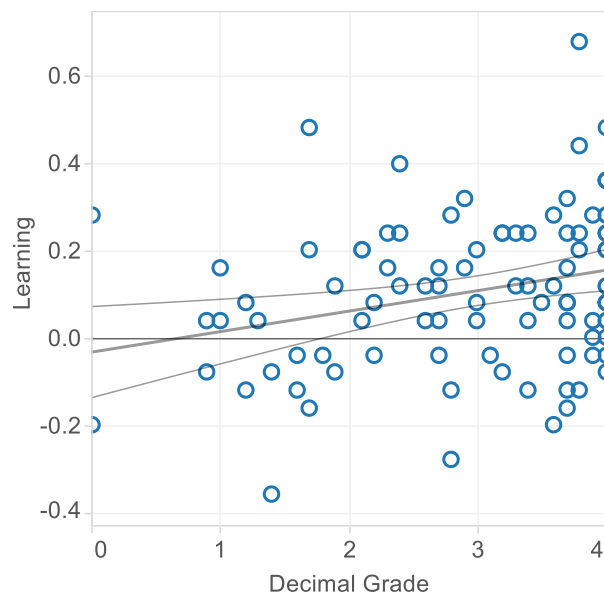
**Figure Item Analysis. Learning change from pre- to post-test by question type.**



## Assessment Validation

Does the assessment measure course learning? Another measurement of course learning is final course grade. Learning on the assessment was related to final course grades ( $r = .28, p = .006$ ), see Figure Assessment Validation. Higher grades were related to greater learning. This relationship may be even stronger when taking into account scores on the pre-test; students performing better on the pre-test showed less learning on the assessment ( $r = -.19, p = .044$ ). Indeed, when accounting for pre-test scores, the relationship between grades and learning measured by the assessment became even stronger ( $r = .31, p < .001$ ).

**Figure Assessment Validation. Final course grade was related to learning on the assessment ( $r = .28$ )**



Another way to validate the assessment is to examine the quality of each question. We measured each question's ability to discriminate students who did better on the assessment separately for Pre- and Post-test scores using a point-biserial correlation. All students taking either the Pre- or Post-test were included in this analysis.

Both the Pre- and Post-test showed high internal consistency with many questions discriminating student performance with a good discrimination index ( $> .3$ ) or a fair discrimination index ( $> .1$ ), see Table Item Analysis.

**Table Item Analysis.** Point-biserial correlations showing which questions discriminate student performance on the Pre- or Post-test. \* denotes significant correlations ( $p < .05$ ).

Question	Pre-test ( $r_{pb}, p$ ) N = 176	Post-test ( $r_{pb}$ ) N=116
1	.218*	.240*
2	.165*	.295*
3	.219*	.232*
4	.223*	.382*
5	.435*	.610*
6	.437*	.587*
7	.292*	.454*
8	.284*	.397*
9	.184*	.132
10	.371*	.459*
11	.216*	.480*
12	.363*	.546*
13	.280*	.411*
14	.369*	.584*
15	.472*	.474*
16	.413*	.363*
17	.355*	.473*
18	.134	.336*
19	.252*	.312*
20	.352*	.490*
21	.475*	.512*
22	.235*	.455*
23	.462*	.574*
24	.412*	.557*
25	.256*	.359*

**Appendix 1. Average percent correct for pre- and post- test questions. Average learning is the difference between post and pre-test.**

Topic	Quiz Question	Pre	Post	Avg. Learning
<b>Core explanation of behavior</b>	1. "born" or "made"	43%	44%	1%
	3. ideas of the behavioral perspective	28%	36%	8%
	5. humanistic theorists - mental health	39%	48%	9%
	6. optimistic view of human behavior	51%	60%	9%
	20. childhood experiences shape adult personality - theorist	37%	42%	5%
<b>Methods</b>	4. independent variable	49%	50%	1%
	25. "operationally," means	32%	41%	9%
<b>Behaviorism</b>	18. child's disruptive behavior. This is an example of:	35%	42%	7%
<b>Clinical Psychology</b>	7. Schizophrenia is best described as:	67%	86%	19%
	19. depressed individuals	50%	56%	6%
	21. diagnosed with which of the following disorders?	63%	76%	12%
	23. Suzanna most likely has a therapist who is using:	44%	49%	5%
	24. treatments for which of the following disorders?	52%	63%	11%
<b>Cognitive Psychology</b>	9. move memories	21%	37%	16%
	15. uncomfortable examinations ... To a psychologist, this illu..	27%	60%	33%
	22. ride a bicycle - stored in your mind as	31%	42%	11%
<b>Educational Psychology</b>	11. IQ tests	28%	37%	9%
	16. According to Gardner, Jeremy has a high level of	46%	54%	8%
<b>History of Psychology</b>	2. led the first psychology lab	57%	59%	2%
<b>Psychobiology</b>	12. damage - brain areas	27%	43%	16%
	14. Branch-like fibers called _____	26%	66%	41%
	17. nervous system - energized, aroused feeling	23%	47%	23%
<b>Social Psychology</b>	8. An organized cluster of knowledge	33%	44%	11%
	10. Abraham Maslow, self-actualization	40%	51%	11%
	13. A heuristic is a:	33%	44%	11%
<b>Grand Average</b>		39%	51%	12%