

**Assessing the General Education Behavioral Science Division
Student Learning Outcomes in PSY 101:
Spring 2015 Update
submitted by
Dr. Tim Ficklin
7/08/2015**

Three credits of Chaminade University's General Education Requirements for all Baccalaureate Degrees include a Behavioral Science Course. General Psychology (PSY 101) is an optional course fulfilling this requirement. Consistent with the need for assessing student learning outcomes (SLO) at the program level, the student learning outcomes for the General Education Requirements also need to be assessed. As there is, at this time, no agreed upon approach for assessing the overall student learning outcomes for the General Education Requirements, it is necessary to perform this assessment of student learning outcomes within the specific course, in this case, the General Psychology course. The Chaminade University Catalog states that for the Behavioral Science Requirement the student will demonstrate:

1. The ability to apply the scientific method to the study of human behavior in various environmental contexts.
2. An understanding of human behavior relative to various environmental contexts.
3. An understanding of human behavior relative to adapting to various changing environmental contexts.

Day Program Results

During the Summer 2014, Dr.'s Mulford and Ficklin, in consultation with Dr. Iwamoto rewrote one of the items in an attempt to increase reliability and better assess the above outcomes. A series of 15 multiple choice questions (five per student learning outcome) was constructed and was administered during the final exams in the two sections of the Spring 2015, Day Undergraduate (DUG) PSY 101, General Psychology course (N = 65). The questions were selected from 4 different chapters in the same "Exploring Psychology" textbook (CH's 1, 4, 11 & 13 currently—9th Edition—David G. Myers) and had been revised following a psychometric analysis in 2009 and again in 2013. Three additional questions were selected for the revised version of the examination using the same textbook in 2013. There was one instructor for the two sections assessed. The instructor for the two sections used a different text from the Exploring Psychology textbook. This was the tenth use of the developed instrument with a textbook being used for the class that was not the one from which the questions were originally drawn. The total sample size was 65 for the on campus, daytime students this semester.

Out of 15 possible correct answers, a mean total score of 10.108 (67.4%) with a standard deviation of 2.33 was obtained from the 65 student respondents. This is a slight decrease from an average score of 10.127 the previous year (Fall 2014 update). The

KR20 internal consistency reliability coefficient for the instrument was found to be 0.51 for all day sections combined. This is a slight decrease from .57 the previous year.

A frequency distribution table was constructed to show the distribution of the total scores. It can be seen in Table 1 below.

Table 1. Frequency Distribution of Total Scores

<u>Total Score</u>	<u>Frequency</u>	<u>Percentage</u>	<u>Cum. Percentage</u>
3	1	1.5	1.5
5	2	3.1	4.6
6	1	1.5	6.2
7	5	7.7	13.8
8	4	6.2	20.0
9	9	13.8	33.8
10	17	26.2	60.0
11	7	10.8	70.8
12	7	10.8	81.5
13	9	13.8	95.4
14	3	4.6	100.0
Total	65		

The raw scores appear to be relatively normally distributed with a slight negative skew (Mean = 10.11, Median = 10.00). On the total score, 80.0% scored 9 or above which represents a raw score of 60% or minimal passing.

SLO #1 The ability to apply the scientific method to the study of human behavior in various environmental contexts

Of the five questions assessing this SLO, 21.5% of the 65 students (14) answered 100% (5/5) correct; 33.8% (22) answered 80% (4/5) correct; 27.7% (18) answered 60% (3/5) correct; 13.8% (9) answered 40% (2/5) correct; 1.5% (1) answered 20% (1/5) correct; and, 1.5% (1) answered 0% correct. The mean score for this SLO assessment was 3.55 with a standard deviation of 2.33.

SLO #2 An understanding of human behavior relative to various environmental contexts

Of the five questions assessing this SLO, 24.6% of the 65 students (16) answered 100% (5/5) correct; 35.4% (23) answered 80% (4/5) correct; 27.7% (18) answered 60%

(3/5) correct; 9.2% (6) answered 40% (2/5) correct; 3.1% (2) answered 20% (1/5) correct. The mean score for this SLO was 3.69 with a standard deviation of 1.045.

SLO #3 An understanding of human behavior relative to adapting to various changing environmental contexts

Of the five questions assessing this SLO, 6.2% of the 65 students (4) answered 100% (5/5) correct; 20.0% (13) answered 80% (4/5) correct; 41.5% (27) answered 60% (3/5) correct; 20.0% (13) answered 40% (2/5) correct; 10.8% (7) answered 20% (1/5) correct; and, 1.5% (1) answered 0% correct (0/5). The mean score for this SLO was 2.86 with a standard deviation of 1.102.

Day Program Conclusions

The analysis of the data for assessing the General Education Behavioral Science Division SLO's in PSY 101, General Psychology classes in the Spring 2015 semester reveals that students have demonstrated an understanding of the three student learning outcomes. The average total score of 10.108 represents an overall passing score of 67%. Using a standard of 3 out of 5 questions answered correctly considered "passing" for each SLO, 83.1% passed SLO #1, 87.7% passed SLO #2 and 67.7% passed SLO #3. An item analysis revealed that only one of the items had a total score correct percentage of less than 40% (item difficulty) and no items had a negative point bi-serial correlation (item discrimination).

PACE Results

In order to continue to assess the General Education student learning outcomes for the PACE (Professional And Continuing Education) program, the same series of 15 multiple choice questions (five per student learning outcome) which had been utilized for the Day Undergraduate Program was administered during the final exam in one section of the Spring PACE semester (N = 10). Only one evening, accelerated (10 week), in-class section was selected because the other sections were online. The questions were again drawn from 4 different chapters in the same "Exploring Psychology" textbook (CH's 1, 4, 11 & 13). This was not the textbook used for the class by the participating instructor.

Out of 15 possible correct answers, a mean total score of 10.00 (66.6%) with a standard deviation of 2.261 was obtained from the 10 student respondents. The KR20 reliability coefficient for the instrument was reported as 0.56 which was higher than last year.

A frequency distribution table was constructed to show the distribution of total scores. It can be seen in Table 2 below.

Table 2. Frequency Distribution of Total Score

<u>Total Score</u>	<u>Frequency</u>	<u>Percentage</u>	<u>Cum. Percentage</u>
7	2	20.0	20.0
8	1	10.0	30.0
9	1	10.0	40.0
10	1	10.0	50.0
11	3	30.0	80.0
12	1	10.0	90.0
14	1	10.0	100.0
Total	10		

The raw score distribution appears normally distributed with a slight positive skew with 70% scoring a 9 or above (passing).

SLO #1 The ability to apply the scientific method to the study of human behavior in various environmental contexts

Of the five questions assessing this SLO, 10.0% of the 10 students (1) answered 100% (5/5) correct; 20.0% (2) answered 80% (4/5) correct; 50.0% (5) answered 60% (3/5) correct; and, 20.0% (2) answered 40% (2/5) correct. The mean score for this SLO assessment was 3.20 with a standard deviation of 0.918.

SLO #2 An understanding of human behavior relative to various environmental contexts

Of the five questions assessing this SLO, 20.0% of the 10 students (2) answered 100% (5/5) correct; 30.0% (3) answered 80% (4/5) correct; 30.0% (3) answered 60% correct (3/5); and, 20.0% (2) answered 40% (2/5) correct. The mean score for this SLO was 3.500 with a standard deviation of 1.080.

SLO #3 An understanding of human behavior relative to adapting to various changing environmental contexts

Of the five questions assessing this SLO, 10.0% of the 10 students (1) answered 100% (5/5) correct; 50.0% (5) answered 80% (4/5) correct; 10.0% (1) answered 60% (3/5) correct; 20% (2) answered 40% (2/5) correct; and, 10.0% (1) answered 20% (1/5) correct. The mean score for this SLO was 3.30 with a standard deviation of 1.252.

PACE Conclusions

The analysis of the data for assessing the General Education Behavioral Science Division SLO's in PSY 101, General Psychology one PACE class in the Spring 2015 semester, indicates that students have demonstrated an understanding of the three student learning outcomes. The average total score of 10.00 represents a passing score of 67%. With a minimum passing rate of 60% (3/5 correct) for each SLO, all three of the SLO's were passed (80% passed SLO #1 and #2 and 70% passed SLO #3).

Day Results compared to PACE Results

A statistical comparison of the results obtained from the Day students compared to the accelerated, evening (PACE) students was accomplished by a series of four independent t tests using a .05 level of significance. None of the calculated t values revealed a significant statistical difference. These results would be somewhat more meaningful if more PACE students had been sampled, but overall these results are positive and encouraging.