

ANALYSIS OF ASSESSMENT DATA FOR LAW AND GRAMMAR

The final analysis of the assessment data for law and grammar below shows that there is significant improvement in the post test scores when they were compared to the pre-test scores. This means that in spring 2007 JRNL 332 students performed much better on the post test. The statistical test also implies in similar situations students will score better in the future on the post test at least 95% of the time. Similar results were found with the JRNL 310 grammar pre and post test given in spring 06, fall 06 and spring 07. The students from these classes also did significantly better on the post test. The results for this test also show that in the future this trend will continue at least 95% of the time.

In both of the follow tests μ_1 =pretest and μ_2 =post test. Both of these tests were preformed using a paired t-test which compares the difference of the mean scores of each question.

A paired t-test was used to determine if there is a significant difference in pre and post test scores for JRNL 332 (spring 2007). This test used 24 students answering 7 questions.
Test:

$$H_0: \mu_1 = \mu_2 \quad H_a: \mu_1 \neq \mu_2 \quad \text{For } \alpha = .05 \quad n=24$$

$$\text{Test Statistic: } t = -7.2 \quad \text{p-value} < .00001$$

Results:

Reject H_0 there is a statistically significant difference between the two scores.

A paired t-test was used to determine if there is a statistically significant difference between pre and post test scores in JRNL 310. All of the students from various sections in spring 06, fall 06 and spring 07 were included.

Test:

$$H_0: \mu_1 = \mu_2 \quad H_a: \mu_1 \neq \mu_2 \quad \text{For } \alpha = .05 \quad n=63$$

$$\text{Test Statistic: } t = -11.16 \quad \text{p-value} < .00001$$

Results:

Reject H_0 there is a statistically significant difference between the two scores.

These results show that with greater than 95% accuracy the difference of the average scores or $\mu_1 - \mu_2$ will be significantly different. The negative t-value implies that the scores on the post test are greater then the scores on the pretest.