

Learning Center SLO's Measurement Report 2014-2015

At the end of every tutoring session, the Learning Center (LC) tutors assess each student on seven measures (on the scale 1 to 5): (1) Independency, (2) Critical Thinking, (3) Motivation, (4) Acquisition, (5) Retention, (6) Performance, and (7) Study Skills. These measures are used to evaluate the educational progress of the students utilizing any of the discipline-specific centers.

The Learning Center's discipline-specific centers are: (1) General Tutoring & Supplemental Instruction, (2) Math Center, (3) Writing Center, (4) Reading Center, and (5) English as a Second Language (ESL) Center. Each discipline-specific center collects data on all seven measures throughout the academic year.

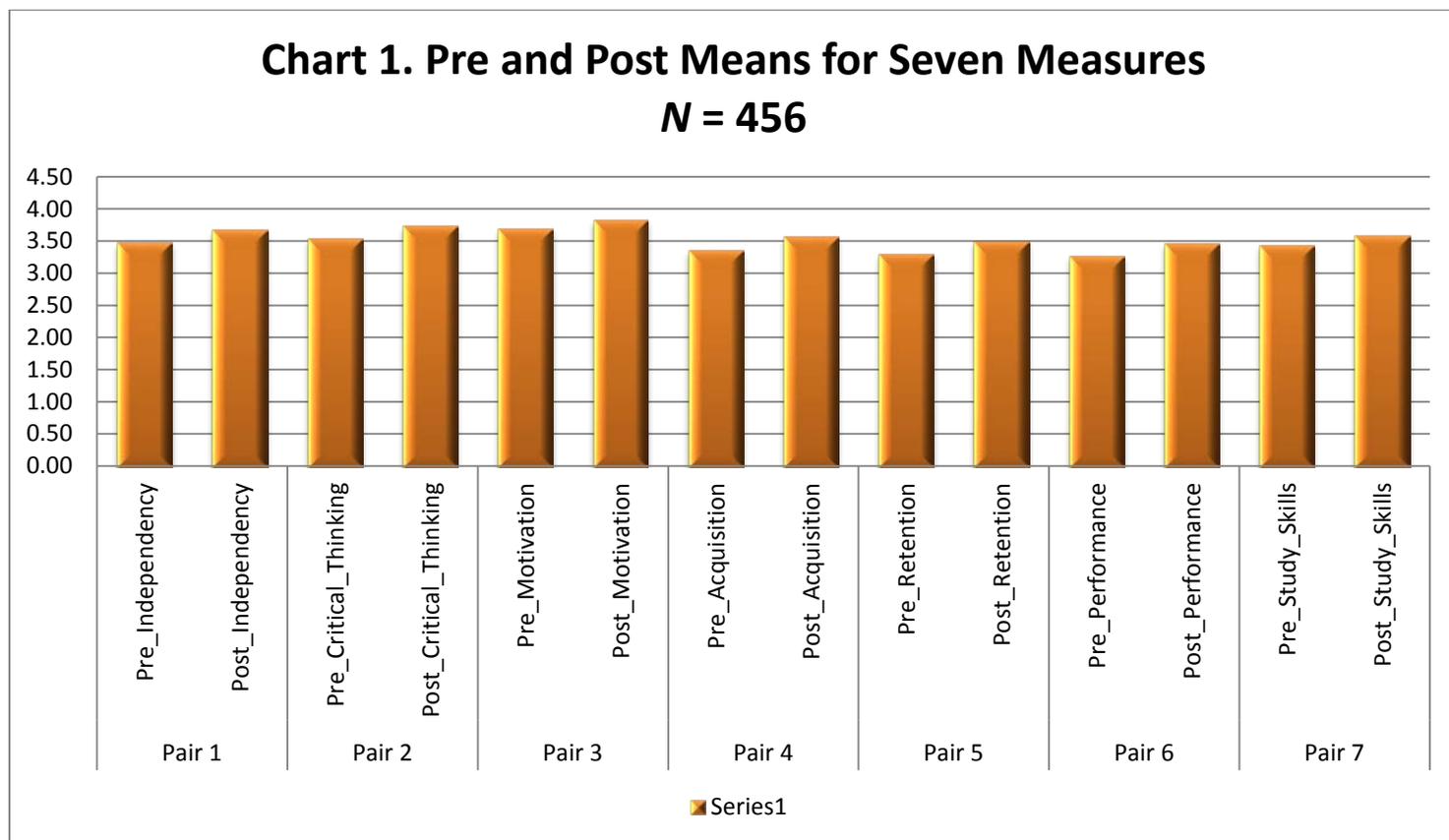
In order to analyze whether attendance of the LC's tutoring session has had a positive effect on the students, a paired samples *t*-test was conducted on the seven assessment measurements. For a student's assessment scores to be included in the analysis, each student must have had a minimum of three visits to a single discipline-specific center. The students' first session scores (PRE) were compared to the average of their scores from their last two sessions (POST). The paired samples *t*-test results on all seven measures for all five discipline-specific centers are:

Table 1. Paired Samples Test

		Paired Differences					<i>t</i>	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Post Independency - Pre Independency	.193	1.023	.048	.099	.287	4.027	455	.000
Pair 2	Post Critical Thinking - Pre Critical Thinking	.204	1.258	.059	.088	.320	3.462	455	.001
Pair 3	Post Motivation – Pre Motivation	.133	1.118	.052	.030	.236	2.534	455	.012
Pair 4	Post Acquisition – Pre Acquisition	.209	1.298	.061	.090	.329	3.445	455	.001
Pair 5	Post Retention – Pre Retention	.197	.981	.046	.107	.288	4.297	455	.000
Pair 6	Post Performance – Pre Performance	.194	1.014	.047	.101	.287	4.088	455	.000
Pair 7	Post Study Skills – Pre Study Skills	.151	.977	.046	.061	.241	3.306	455	.001

Sample size for all seven measures was 456. As indicated by the p -values in Table 1, the mean difference between each post- and pre-test pairing for all seven measures is statistically significant and it is positive. The mean differences are small, however, ranging from .13 to .21 points.

The following chart compares the pre and post-test means for each assessment.



Conclusion

Overall, there was a statistical improvement on all seven measures, i.e. the post-test means score (the average of students' last two sessions) was greater than the pre-test mean score (students' first sessions). The data indicates that students are benefiting from their Learning Center visits.