Standard 1: Demonstrates ability to enhance academic performance and support for the implementation of the school district's student achievement goals.

Criterion c: Uses student performance data as a guide for decision making.

Artifact: Using performance data from the unit of study, create a report using *PAWS Statistics 18™* and explain what changes you made in your instruction because of the data from this report.

Test Scores in American Government (Period 1)

Student	**Test 1**	**Test 2**
A	54.00	70.00
B	50.00	58.00
C	55.00	58.00
D	53.00	55.00
E	65.00	62.00
F	46.00	42.00
G	54.00	69.00
H	45.00	47.00
I	52.00	70.00
J	55.00	61.00
K	36.00	48.00
L	56.00	61.00
M	55.00	63.00
N	59.00	42.00
O	51.00	52.00

After I corrected the first test I decided that I needed to direct more formative assessment questions to students H and K. I consciously started calling on them more frequently during my lectures and power-point presentations. If they did not know the answer I would move on to someone else, but I would them ask them for the correct answer after another student had given it to me.

I also stressed the importance of good note taking. Student K showed good improvement between test 1 and test 2.

Student Rank on Each Test

Student	Test 1	Test 2
A	7.500	1.500
B	12.000	8.500
C	5.000	8.500
D	9.000	10.000
E	1.000	5.000
F	13.000	14.500
G	7.500	3.000
H	14.000	13.000
I	10.000	1.500
J	5.000	6.500
K	15.000	12.000
L	3.000	6.500
M	5.000	4.000
N	2.000	14.500
O	11.000	11.000

The rank table shows the rank that each student received for each test. Students E, J, L, and M consistently ranked near the top. Seven students increased their ranking on the second test. Seven students had lower rankings on the second test. One student kept the same ranking.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
VAR00001	15	36.00	65.00	52.4000	6.62032
VAR00002	15	42.00	70.00	57.2000	9.39757
Valid N (listwise)	15				

The range of the first test was twenty-nine. The range for the second test was twenty-eight. The range of the test was very similar, but the second test had a higher average. The standard deviation was greater for the first test.

Descriptives

		Statistic	Std. Error
VAR00001	Mean	52.4000	1.70936
	Median	54.0000	
	Std. Deviation	6.62032	
	Minimum	36.00	
	Maximum	65.00	
	Range	29.00	
VAR00002	Mean	57.2000	2.42644
	Median	58.0000	
	Std. Deviation	9.39757	
	Minimum	42.00	
	Maximum	70.00	
	Range	28.00	

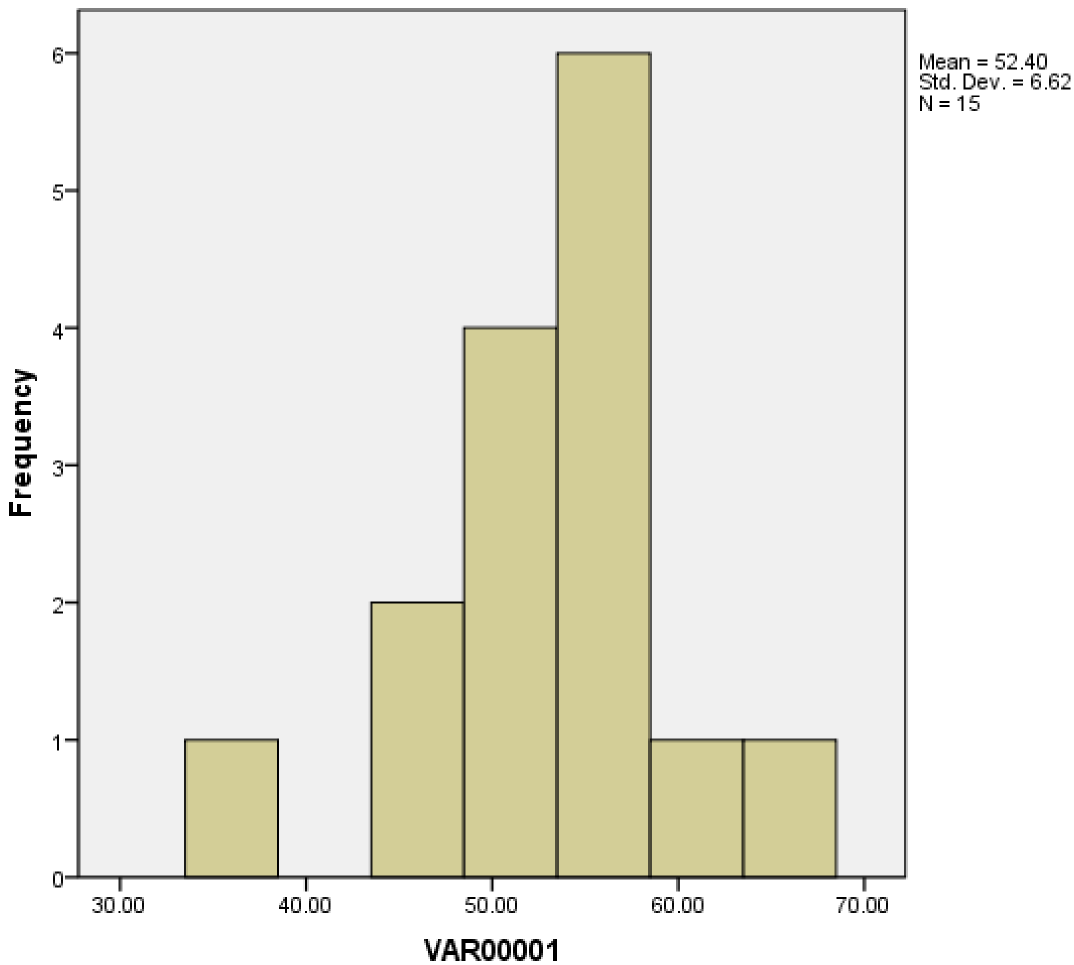
The class average was higher for the second test. This may have been caused by more formative assessment done throughout lectures. The median was higher for the second test.

Correlations

		VAR00001	VAR00002
VAR00001	Pearson Correlation	1	.417
	Sig. (2-tailed)		.122
	N	15	15
VAR00002	Pearson Correlation	.417	1
	Sig. (2-tailed)	.122	
	N	15	15

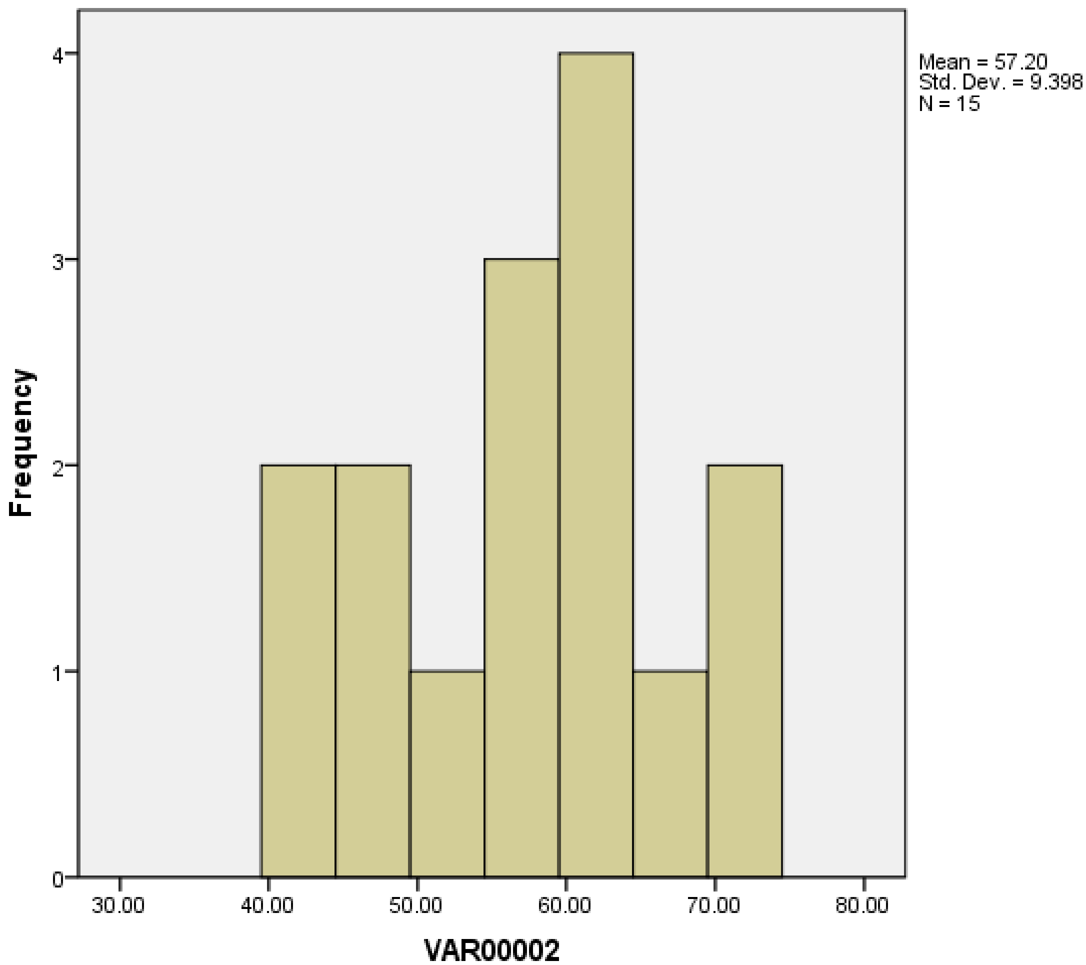
There is signigicant positive correlation between Test 1 scores and Test 2 scores. The value of Pearson's r is 0.417.

Histogram for Test 1 Scores



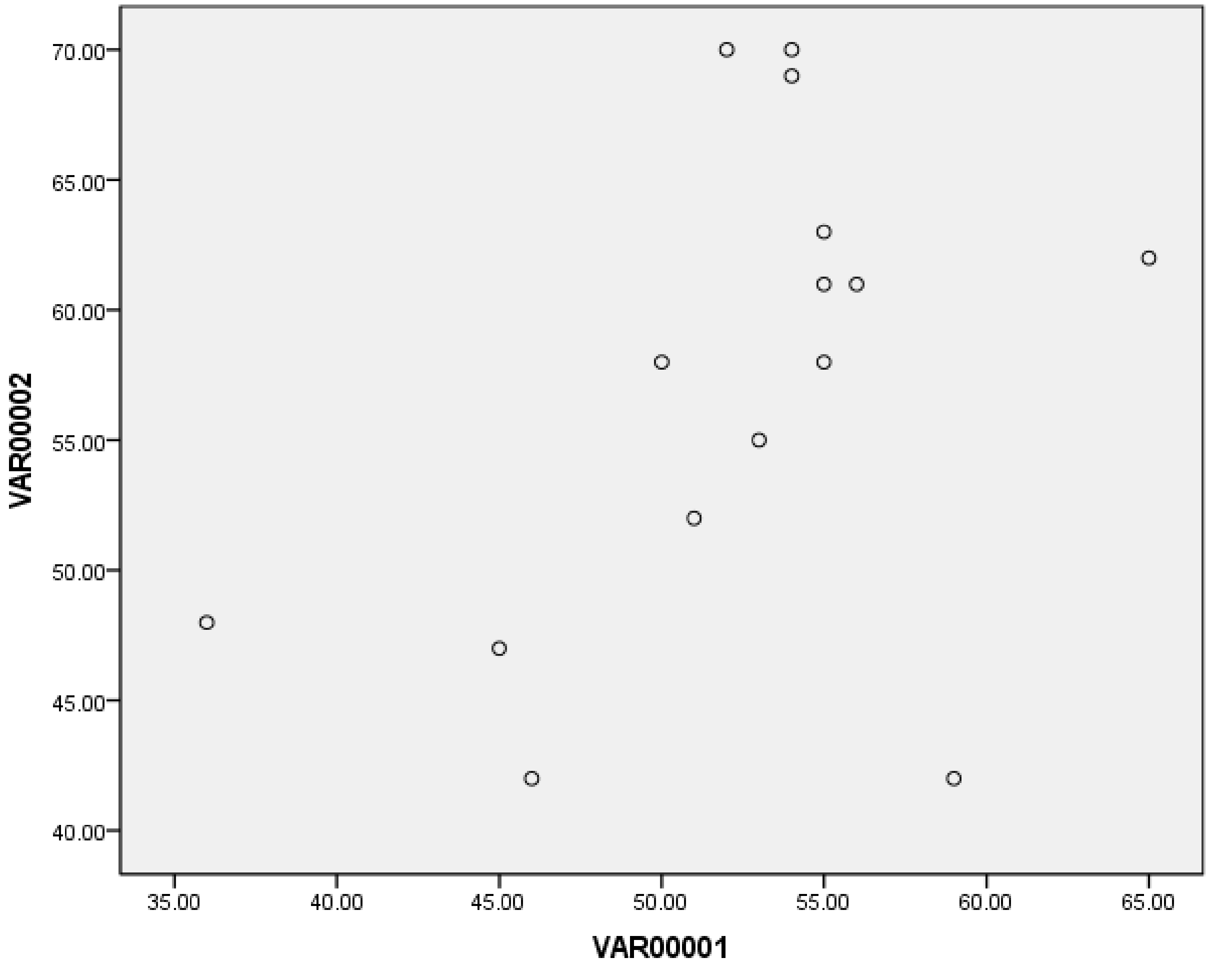
Six students scored in the 50-54 range. Five students scored in the range of 55-59. Two students scored in the 45-49 range, and one student scored a 36. One student also scored a 65.

Histogram for Test 2 Scores



Five students scored in the 60-69 range. Four students scored in the 40-49 range. Four students scored in the 50-59 range. While two students scored a 70.

Scatterplot for Test 1 and Test 2



Variable one is Test 1. Variable two is Test 2. The scatter plot shows that the students who score low on the first test tend to score low on the second test. The scatter plot shows that students who score high on the first test tend to score high on the second test.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.218	18.894		1.388	.189
	VAR00001	.591	.358	.417	1.652	.122

a. Dependent Variable: VAR00002

The information in this table gives the slope of the equation and the y intercept that best fits the data in the scatter plot for Test 1 and Test 2.

The best fit equation for this scatter plot is the following: y^ = 26.218 + 0.501(x)

(Note: y^ = predicated value of score on the second test)

Explanation

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Artifact: Using performance data from the unit of study, create a report using *PAWS Statistics 18™* and explain what changes you made in your instruction because of the data from this report.

This artifact demonstrates my ability to analyze data from student assessments with a statistical package. Based upon my reflection of the information generated, I was able to assess student progress. For example, I started to direct more formative assessment questions towards two students after Test 1. The second test shows that the formative assessment worked because both students improved their test scores.

Based upon the results of the first test, I stressed the importance of good note taking. I also stressed the importance of looking over the notes the night before a test in order to get a better score on the next test.

By examining the results generated by the statistical package, I was able to have a clearer understanding of the progress of the students. For example, by manipulating the aggregate data for the two tests, I was able to understand class performance and individual performance. Overall, most students scored higher on their second test due to better note taking, more formative assessment, and better study habits.