

Classroom Assessment Project
for
PI 101 Introduction to Philosophy
by
James D. Sellmann

These are the results of my class assessment for the Spring 2000. This is my second class assessment; the first was performed on my 1999-00 intersession course. It has been 27 years since I studied research design; so, please, excuse the oversimplified nature of this project. However, just by eye-balling the data one can see that the students made a marked improvement by the end of the semester.

Objective: My objective was to verify that students learn content information about philosophy by taking a course in philosophy. "Learn content" means that they can correctly answer test questions.

Method: The first day of class I administered a one-hundred question multiple choice exam which was to be the final exam. The students took the same exam as the final exam. Then, I compared the scores based on the total number wrong.

Note: Not all the students attended the first day and some of the students who took the initial assessment test did not take the final test. They are marked n/a.

Data:

Student's Initials	# wrong on assessment	v.	final
TA	-68		-19
PA	-35		-32
TA	-72		-32
TB	-66		-36
RB	-51		-29
MB	-64		n/a
MC	-61		-10
EDC	-71		n/a
HD	-64		-13
ND	-64		-24
CF	-61		-10
BH	-63		-11
KK	-68		-42
AL	n/a		-13
RM	-69		-25
TM	-74		n/a
TM	-70		n/a
JM	-58		-10
MM	-59		-17
JM	-67		-22
AM	-67		-28
RM	-66		-8
JM	-73		n/a
No name	-57		n/a

MO	-61	-22
TP	-70	-17
TP	n/a	-47
GP	-61	n/a
BP	-67	-26
MP	-64	n/a
AQ	-62	-42
DQ	-80	-19
TR	-66	-12
MS	-76	n/a
BT	-65	-29
MT	-67	-22
ST	-71	-54
MT	-62	-15
FT	-67	-37
FV	-62	-26

Discussion: Without statistical analysis one can see that the students' scores improved markedly. Due to the four choice answers, the students may have gotten 25 answers correct just by guessing. On the initial assessment test 51% to 80% was the range for the number wrong; while on the final the range was 8% to 54%.

Results:

The classroom assessment verifies that students did gain knowledge from taking the course. Overall the range of their ignorance (denoted by number wrong) decreased by 28% to 58%.

Therefore students are learning content information in my courses.

Frequencies

Statistics

		PRE	POST
N	Valid	50	49
	Missing	9	10

Frequency Table

PRE

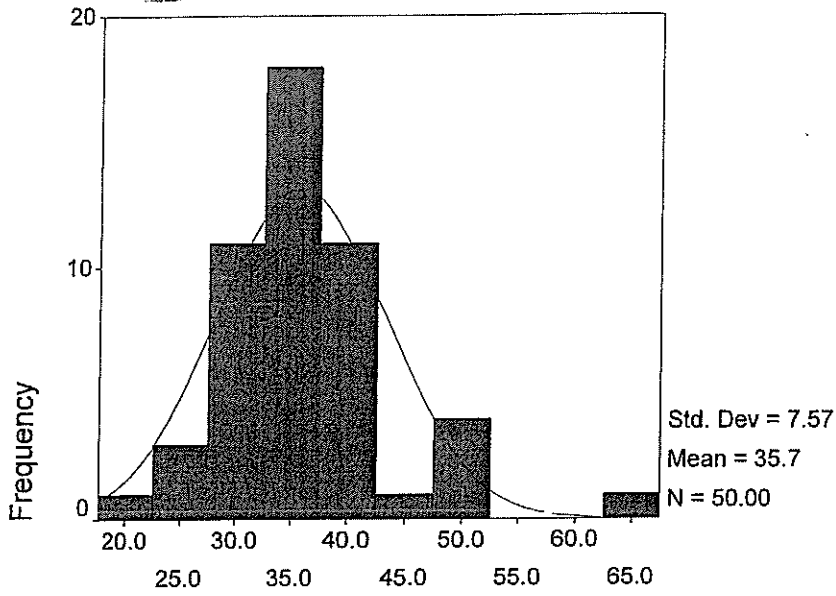
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	1.7	2.0	2.0
	24	1	1.7	2.0	4.0
	26	1	1.7	2.0	6.0
	27	1	1.7	2.0	8.0
	28	3	5.1	6.0	14.0
	29	2	3.4	4.0	18.0
	30	3	5.1	6.0	24.0
	31	1	1.7	2.0	26.0
	32	2	3.4	4.0	30.0
	33	5	8.5	10.0	40.0
	34	3	5.1	6.0	46.0
	35	1	1.7	2.0	48.0
	36	7	11.9	14.0	62.0
	37	2	3.4	4.0	66.0
	38	4	6.8	8.0	74.0
	39	5	8.5	10.0	84.0
	41	1	1.7	2.0	86.0
	42	1	1.7	2.0	88.0
	43	1	1.7	2.0	90.0
	49	3	5.1	6.0	96.0
	50	1	1.7	2.0	98.0
	65	1	1.7	2.0	100.0
	Total	50	84.7	100.0	
Missing	System	9	15.3		
Total		59	100.0		

POST

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46	1	1.7	2.0	2.0
	53	1	1.7	2.0	4.1
	58	2	3.4	4.1	8.2
	63	1	1.7	2.0	10.2
	64	1	1.7	2.0	12.2
	68	2	3.4	4.1	16.3
	71	2	3.4	4.1	20.4
	72	1	1.7	2.0	22.4
	74	2	3.4	4.1	26.5
	75	1	1.7	2.0	28.6
	76	2	3.4	4.1	32.7
	78	3	5.1	6.1	38.8
	81	3	5.1	6.1	44.9
	82	1	1.7	2.0	46.9
	83	3	5.1	6.1	53.1
	84	1	1.7	2.0	55.1
	85	2	3.4	4.1	59.2
	86	1	1.7	2.0	61.2
	87	4	6.8	8.2	69.4
	88	2	3.4	4.1	73.5
	89	3	5.1	6.1	79.6
	90	4	6.8	8.2	87.8
	91	3	5.1	6.1	93.9
	92	1	1.7	2.0	95.9
	93	2	3.4	4.1	100.0
	Total	49	83.1	100.0	
Missing	System	10	16.9		
Total		59	100.0		

Histogram

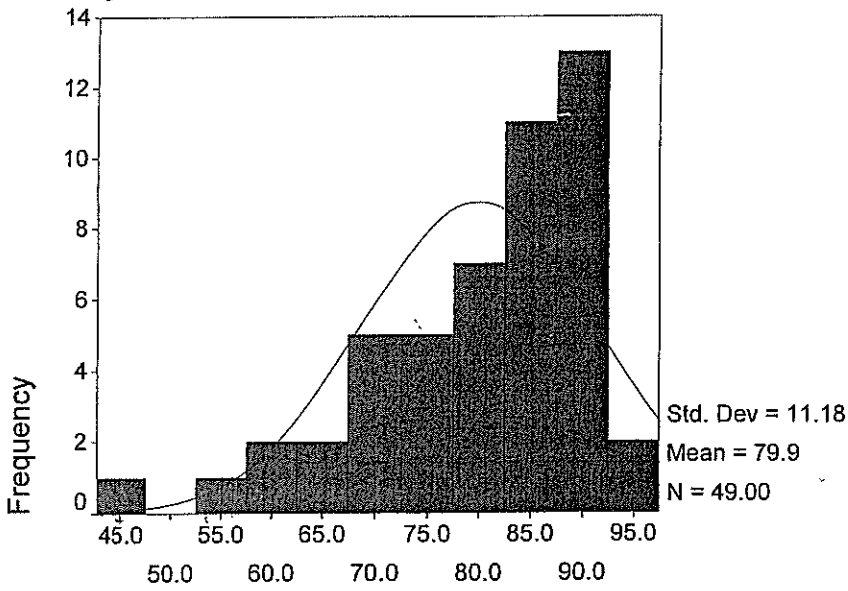
PRE



PRE

SKEWED DISTRIBUTION

POST



POST

Descriptives

Descriptive Statistics

	N	Range	Minimum	Maximum
	Statistic	Statistic	Statistic	Statistic
PRE	50	45	20	65
POST	49	47	46	93
Valid N (listwise)	40			

Descriptive Statistics

	Mean		Std.	Variance
	Statistic	Std. Error	Statistic	Statistic
PRE	35.74	1.07	7.57	57.298
POST	79.94	1.60	11.18	125.017
Valid N (listwise)				

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE	36.53	40	7.73	1.22
	POST	79.78	40	10.48	1.66

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PRE & POST	40	.052	.749

Paired Samples Test

		Paired Differences					t
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		
					Lower	Upper	
Pair 1	PRE - POST	-43.25	12.70	2.01	-47.31	-39.19	-21.547

Paired Samples Test

		df	Sig. (2-tailed)
Pair 1	PRE - POST	39	.000

STRONG EFFECT OF TAKING CLASS

Oneway

Warnings

Post hoc tests are not performed for PRE because there are fewer than three groups.

Post hoc tests are not performed for POST because there are fewer than three groups.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
PRE	.143	1	48	.707
POST	11.867	1	47	.001

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
PRE	Between Groups	56.822	1	56.822	.992	.324
	Within Groups	2750.798	48	57.308		
	Total	2807.620	49			
POST	Between Groups	1418.623	1	1418.623	14.551	.000
	Within Groups	4582.194	47	97.493		
	Total	6000.816	48			

NO SIGNIFICANT DIFFERENCE B/T CLASSES

SIGNIFICANT DIFFERENCE B/T CLASSES.

Correlations

Correlations

		PRE	POST
PRE	Pearson Correlation	1.000	.052
	Sig. (2-tailed)	.	.749
	N	50	40
POST	Pearson Correlation	.052	1.000
	Sig. (2-tailed)	.749	.
	N	40	49

*NO CORRELATION B/T HOW STUDENTS PERFORMED ON THE TWO TESTS.

Regression

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	PRE ^a		Enter

- a. All requested variables entered.
- b. Dependent Variable: POST

* 65 ON PRE (TOP SCORE) WENT A 68 ON POST (7th FROM LOWEST SCORE)
(STILL NON-SIGNIFICANT CORRELATION).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.052 ^a	.003	-.024	10.60

a. Predictors: (Constant), PRE

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.636	1	11.636	.104	.749 ^a
	Residual	4271.339	38	112.404		
	Total	4282.975	39			

a. Predictors: (Constant), PRE

b. Dependent Variable: POST

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	77.195	8.192		9.423	.000
	PRE	7.064E-02	.220	.052	.322	.749

a. Dependent Variable: POST

All

<i>pre</i>		<i>post</i>	
Mean	35.7	Mean	79.9
Standard Error	1.1	Standard Error	1.6
Median	36.0	Median	83.0
Mode	36.0	Mode	90.0
Standard Deviation	7.6	Standard Deviation	11.2
Sample Variance	57.3	Sample Variance	125.0
Kurtosis	3.7	Kurtosis	0.9
Skewness	1.3	Skewness	-1.2
Range	45.0	Range	47.0
Minimum	20.0	Minimum	46.0
Maximum	65.0	Maximum	93.0
Sum	1787.0	Sum	3917.0
Count	50.0	Count	49.0

Class 1

<i>pre</i>		<i>post</i>	
Mean	35.1	Mean	75.8
Standard Error	1.2	Standard Error	2.1
Median	34.0	Median	78.0
Mode	33.0	Mode	90.0
Standard Deviation	7.6	Standard Deviation	11.9
Sample Variance	57.0	Sample Variance	141.1
Kurtosis	6.1	Kurtosis	0.0
Skewness	1.6	Skewness	-0.7
Range	45.0	Range	46.0
Minimum	20.0	Minimum	46.0
Maximum	65.0	Maximum	92.0
Sum	1299.0	Sum	2351.0
Count	37.0	Count	31.0

Class 2

<i>pre</i>		<i>post</i>	
Mean	37.54	Mean	87
Standard Error	2.114	Standard Error	1.069
Median	36	Median	87.5
Mode	36	Mode	91
Standard Deviation	7.623	Standard Deviation	4.537
Sample Variance	58.1	Sample Variance	20.59
Kurtosis	-0.685	Kurtosis	0.42
Skewness	0.579	Skewness	-0.782
Range	22	Range	17
Minimum	28	Minimum	76
Maximum	50	Maximum	93
Sum	488	Sum	1566
Count	13	Count	18

correlation (all)	
pre*post	0.052
correlation (exclude one)	
pre*post	0.204

