

Ch8-Ex1- University grades (univ) as a function of cognitive ability (abil) and study time (stdy).

*Categorical: C.
 TTEST VARI = univ /GROUP = ab2.

ab2	N	Mean	Std. Deviation	Std. Error Mean
univ 1	18	63.50	6.802	1.603
2	18	67.94	7.573	1.785

t-test for Equality of Means					
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
univ	-1.852	.34	.073	-4.444	2.399

GLM univ BY ab2.

Dependent Variable: univ					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
ab2	177.778	1	177.778	3.432	.073
Error	1761.444	34	51.807		
Corrected Total	1939.222	35			

REGRESS /DEP = univ /ENTER ab2 /SAVE PRED(prdu.a) RESI(resu.a).

Model	R	R Square
1	.303	.092

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	177.778	1	177.778	3.432	.073
	Residual	1761.444	34	51.807		
	Total	1939.222	35			

Unstandardized Coefficients					
Model	B	Std. Error	t	Sig.	
1	(Constant)	59.056	3.794	15.567	.000
	ab2	4.444	2.399	1.852	.073

	Mean	Std. Deviation	N
Predicted Value	65.72	2.254	36
Residual	.000	7.094	36

VARI LABEL prdu.a ' resu.a ' .
 LIST.
 SUBJ abil stdy hs univ ab2 prdu.a resu.a
 1 69 26 50 59 1 63.50000 -4.50000
 2 75 30 70 63 1 63.50000 -5.00000
 3 79 29 68 66 1 63.50000 2.50000
 ...
 19 97 23 60 67 2 67.94444 -.94444
 20 98 25 74 84 2 67.94444 16.05556
 21 100 21 60 59 2 67.94444 -8.94444
 ...

*Categorical: C N; groups diff on study time.
 TTEST VARI = stdy /GROUP = ab2.

ab2	N	Mean	Std. Deviation	Std. Error Mean
stdy 1	18	22.17	4.866	1.147
2	18	18.67	4.740	1.117

t-test for Equality of Means					
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
stdy	2.188	.34	.036	3.500	1.601

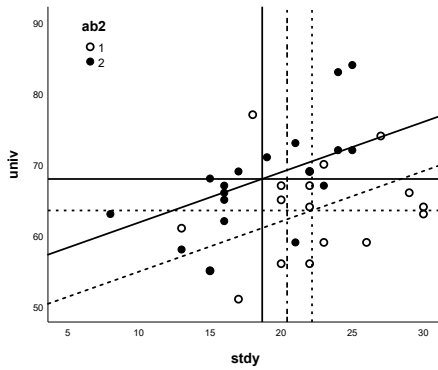
REGRESS /DEP = univ /ENTER ab2 stdy.

Model	R	R Square
1	.543	.295

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	572.069	2	286.034	6.904	.003
	Residual	1367.153	33	41.429		
	Total	1939.222	35			

Unstandardized Coefficients					Standardized Coefficients				
Model	B	Std. Error	t	Sig.	Beta	t	Sig.		
1	(Constant)	40.859	6.804	6.005	.000				
	ab2	6.926	2.291	.472	3.023	.005			
	stdy	.709	.230	.482	3.085	.004			

GRAPH /SCATTERPLOT(BIVAR)=stdy WITH univ BY ab2 /MISSING=LISTWISE.



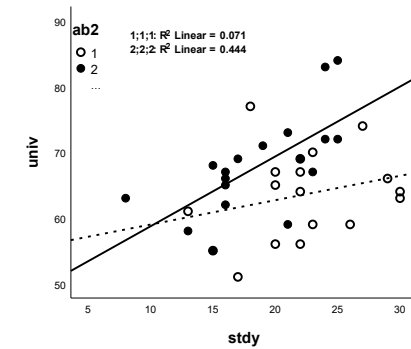
*Categorical: C, C N, C N CxN.
 COMPUTE axs = ab2*stdy.
 REGRESS /DEP = univ /ENTER ab2 stdy axs.

Model	R	R Square
1	.586	.344

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	666.232	3	222.077	5.583	.003
	Residual	1272.990	32	39.781		
	Total	1939.222	35			

Unstandardized Coefficients					Standardized Coefficients				
Model	B	Std. Error	t	Sig.	Beta	t	Sig.		
1	(Constant)	62.461	15.543	4.019	.000				
	ab2	-7.194	9.448	-.490	-.761	.452			
	stdy	-.322	.707	-.219	-.455	.652			
	axs	.693	.451	.996	1.539	.134			

GRAPH /SCATTERPLOT(BIVAR)=stdy WITH univ BY ab2 /MISSING=LISTWISE.



SPLIT FILE BY ab2.
 REGRESS /DEP = univ /ENTER stdy.

ab2	Model	R	R Square
1	1	.266	.071
2	1	.666	.444

ab2	Model	Sum of Squares	df	Mean Square	F	Sig.	
1	1	Regression	55.529	1	55.529	1.215	.287
		Residual	730.971	16	45.686		
		Total	786.500	17			
2	1	Regression	432.926	1	432.926	12.780	.003
		Residual	542.018	16	33.876		
		Total	974.944	17			

Unstandardized Coefficients					Standardized Coefficients				
ab2	Model	B	Std. Error	t	Sig.	Beta	t	Sig.	
1	1	(Constant)	55.267	7.636	7.238	.000			
		stdy	.371	.337	.266	1.102	.287		
2	1	(Constant)	48.072	5.726	8.396	.000			
		stdy	1.065	.298	.666	3.575	.003		

SPLIT FILE OFF.