ANCOVA on Posttest with Pretest as a covariate

Between-Subjects Factors

ITEM1			N
A	TUTOR	BC	13
		FC	13
B	TUTOR	BC	13
		FC	13

Descriptive Statistics

Dependent Variable: POSTTEST

ITEM1	TUTOR	Mean	Std. Deviation	N
A	BC	.553050	.2058717	13
	FC	.551555	.2497111	13
	Total	.552303	.2242213	26
B	BC	.566038	.2101043	13
	FC	.858974	.1574737	13
	Total	.712506	.2353787	26

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

ITEM1	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
A	Corrected Model	.251[a]	3	.084	1.830	.171
	Intercept	.520	1	.520	11.369	.003
	TUTOR	.002	1	.002	.041	.841
	PRETEST	.241	1	.241	5.278	.031
	TUTOR * PRETEST	6.868E-05	1	6.868E-05	.002	.969
	Error	1.006	22	.046		
	Total	9.188	26			
	Corrected Total	1.257	25			
B	Corrected Model	.820[b]	3	.273	10.649	.000
	Intercept	1.481	1	1.481	57.677	.000
	TUTOR	.186	1	.186	7.246	.013
	PRETEST	.256	1	.256	9.956	.005
	TUTOR * PRETEST	.058	1	.058	2.264	.147
	Error	.565	22	.026		
	Total	14.584	26			
	Corrected Total	1.385	25			

a. R Squared = .200 (Adjusted R Squared = .091)

b. R Squared = .592 (Adjusted R Squared = .537)

ANCOVA on Posttest with Pretest as a covariate

Between-Subjects Factors

ITEM1			N
A	TUTOR	BC	13
		FC	13
B	TUTOR	BC	13
		FC	13

Descriptive Statistics

Dependent Variable: POSTTEST

ITEM1	TUTOR	Mean	Std. Deviation	N
A	BC	.553050	.2058717	13
	FC	.551555	.2497111	13
	Total	.552303	.2242213	26
B	BC	.566038	.2101043	13
	FC	.858974	.1574737	13
	Total	.712506	.2353787	26

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

ITEM1	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
A	Corrected Model	.251[a]	2	.125	2.868	.077
	Intercept	.563	1	.563	12.864	.002
	TUTOR	.007	1	.007	.167	.687
	PRETEST	.251	1	.251	5.736	.025
	Error	1.006	23	.044		
	Total	9.188	26			
	Corrected Total	1.257	25			
B	Corrected Model	.762[b]	2	.381	14.068	.000
	Intercept	1.510	1	1.510	55.738	.000
	TUTOR	.192	1	.192	7.083	.014
	PRETEST	.204	1	.204	7.543	.011
	Error	.623	23	.027		
	Total	14.584	26			
	Corrected Total	1.385	25			

a. R Squared = .200 (Adjusted R Squared = .130)

b. R Squared = .550 (Adjusted R Squared = .511)

Estimated Marginal Means

TUTOR

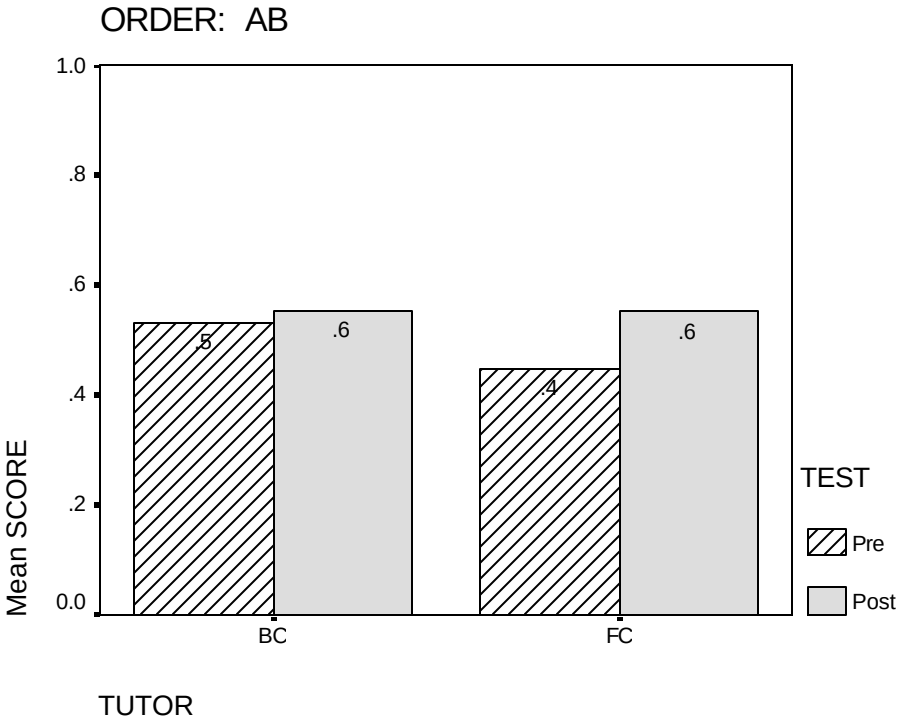
Dependent Variable: POSTTEST

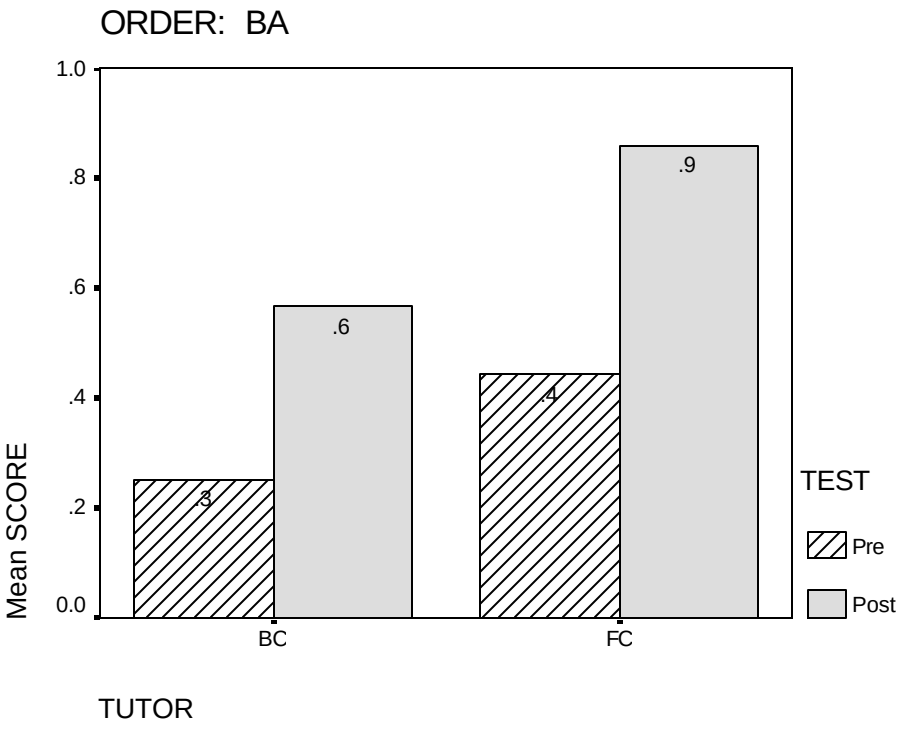
ITEM1	TUTOR	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
A	BC	.535[a]	.058	.414	.656
	FC	.569[a]	.058	.448	.690
B	BC	.615[b]	.049	.513	.716
	FC	.810[b]	.049	.709	.912

a. Covariates appearing in the model are evaluated at the following values: PRETEST = .490687.

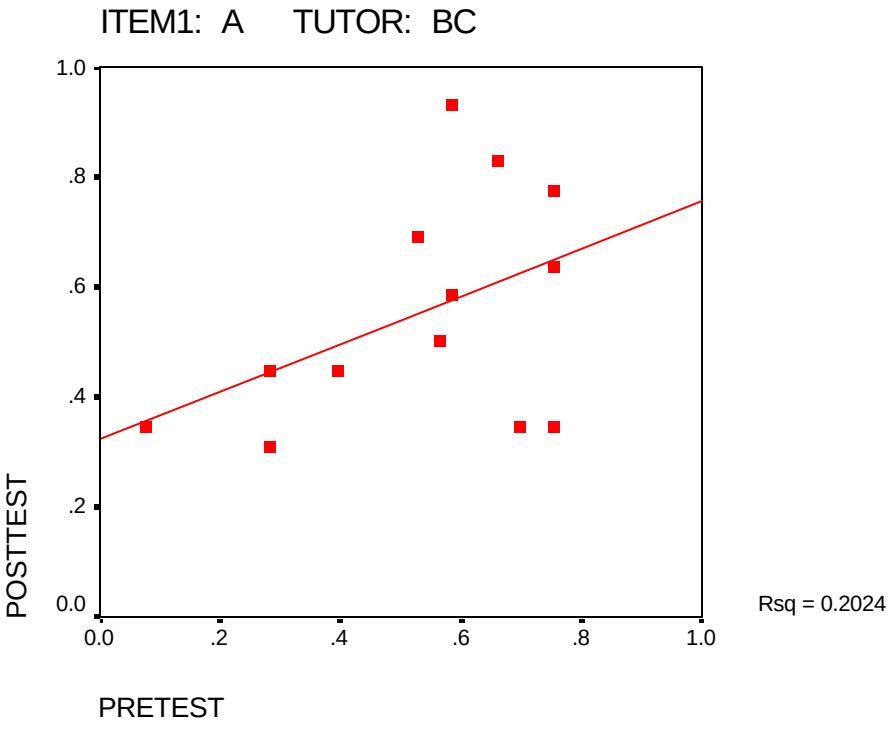
b. Covariates appearing in the model are evaluated at the following values: PRETEST = .347762.

Graph

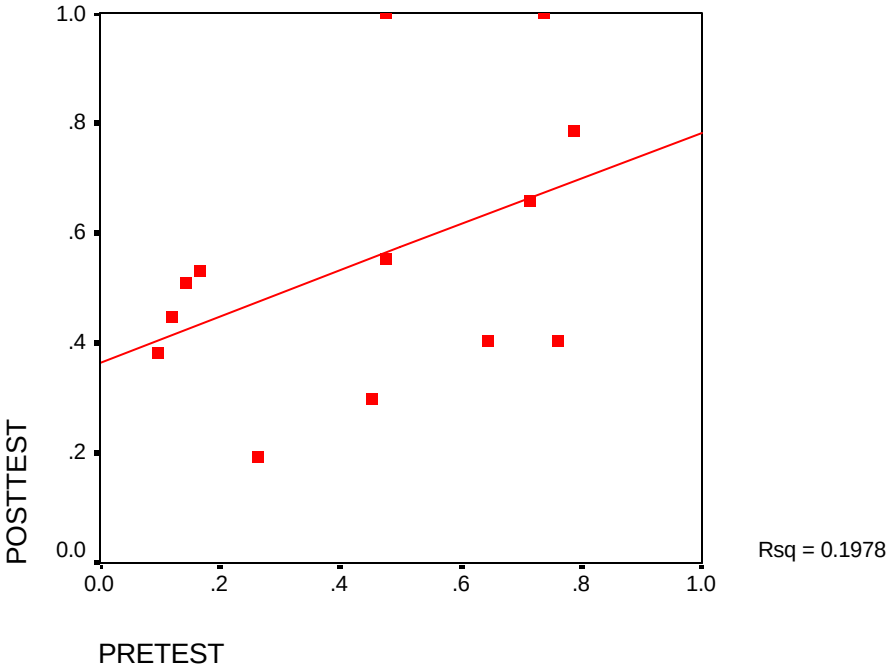




Scatter plot (ITEM1 shows the test item used as a pre-test)

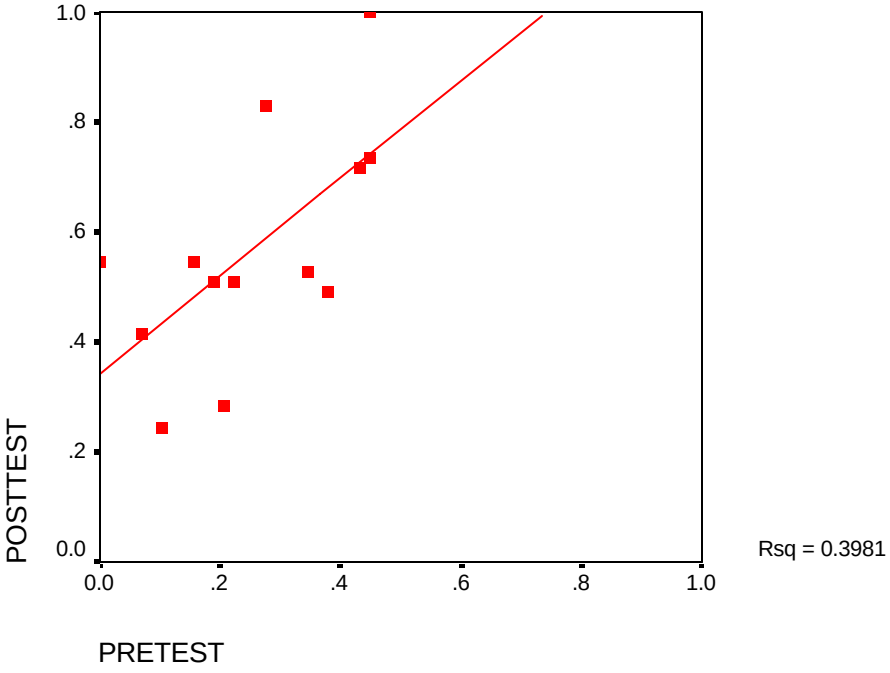


ITEM1: A TUTOR: FC

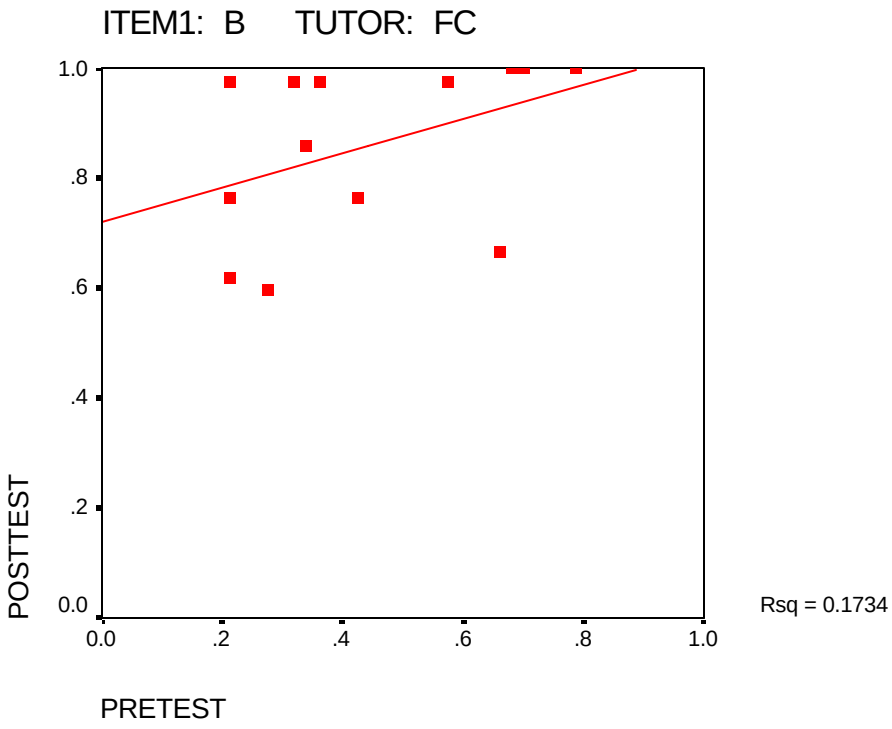


Rsq = 0.1978

ITEM1: B TUTOR: BC



Rsq = 0.3981



Correlations between Pre- and Post-test

ITEM1 = A, TUTOR = BC

Descriptive Statistics[a]

	Mean	Std. Deviation	N
PRETEST	.532656	.2141813	13
POSTTEST	.553050	.2058717	13

a. ITEM1 = A, TUTOR = BC

Correlations[a]

		PRETEST	POSTTEST
PRETEST	Pearson Correlation	1	.450
	Sig. (2-tailed)	.	.123
	N	13	13
POSTTEST	Pearson Correlation	.450	1
	Sig. (2-tailed)	.123	.
	N	13	13

a. ITEM1 = A, TUTOR = BC

ITEM1 = A, TUTOR = FC

Descriptive Statistics[a]

	Mean	Std. Deviation	N
PRETEST	.448718	.2656383	13
POSTTEST	.551555	.2497111	13

a. ITEM1 = A, TUTOR = FC

Correlations[a]

		PRETEST	POSTTEST
PRETEST	Pearson Correlation	1	.445
	Sig. (2-tailed)	.	.128
	N	13	13
POSTTEST	Pearson Correlation	.445	1
	Sig. (2-tailed)	.128	.
	N	13	13

a. ITEM1 = A, TUTOR = FC

ITEM1 = B, TUTOR = BC

Descriptive Statistics[a]

	Mean	Std. Deviation	N
PRETEST	.251989	.1499006	13
POSTTEST	.566038	.2101043	13

a. ITEM1 = B, TUTOR = BC

Correlations[a]

		PRETEST	POSTTEST
PRETEST	Pearson Correlation	1	.631*
	Sig. (2-tailed)	.	.021
	N	13	13
POSTTEST	Pearson Correlation	.631*	1
	Sig. (2-tailed)	.021	.
	N	13	13

*. Correlation is significant at the 0.05 level (2-tailed).

a. ITEM1 = B, TUTOR = BC

ITEM1 = B, TUTOR = FC

Descriptive Statistics[a]

	Mean	Std. Deviation	N
PRETEST	.443535	.2093423	13
POSTTEST	.858974	.1574737	13

a. ITEM1 = B, TUTOR = FC

Correlations[a]

		PRETEST	POSTTEST
PRETEST	Pearson Correlation	1	.416
	Sig. (2-tailed)	.	.157
	N	13	13
POSTTEST	Pearson Correlation	.416	1
	Sig. (2-tailed)	.157	.
	N	13	13

a. ITEM1 = B, TUTOR = FC