Univariate Analysis of Variance

Between-Subjects Factors

| | | N |
|-------|----|----|
| TUTOR | BC | 26 |
| | FC | 26 |

Descriptive Statistics

Dependent Variable: POSTTEST

| TUTOR | Mean | Std. Deviation | N |
|-------|---------|----------------|----|
| BC | .559544 | .2039039 | 26 |
| FC | .705265 | .2576926 | 26 |
| Total | .632404 | .2415475 | 52 |

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|------------------------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 1.405 ^a | 7 | .201 | 5.622 | .000 |
| Intercept | 1.481 | 1 | 1.481 | 41.482 | .000 |
| TUTOR | .186 | 1 | .186 | 5.211 | .027 |
| ITEM201 | .085 | 1 | .085 | 2.378 | .130 |
| PRETEST | .256 | 1 | .256 | 7.161 | .010 |
| TUTOR * ITEM201 | .067 | 1 | .067 | 1.889 | .176 |
| TUTOR * PRETEST | .058 | 1 | .058 | 1.629 | .209 |
| ITEM201 * PRETEST | .014 | 1 | .014 | .392 | .535 |
| TUTOR * ITEM201 * PRETEST | .036 | 1 | .036 | 1.009 | .321 |
| Error | 1.571 | 44 | .036 | | |
| Total | 23.772 | 52 | | | |
| Corrected Total | 2.976 | 51 | | | |

a. R Squared = .472 (Adjusted R Squared = .388)

Univariate Analysis of Variance

Between-Subjects Factors

| | | N |
|-------|----|----|
| TUTOR | BC | 26 |
| | FC | 26 |

Descriptive Statistics

Dependent Variable: POSTTEST

| TUTOR | Mean | Std. Deviation | N |
|-------|---------|----------------|----|
| BC | .559544 | .2039039 | 26 |
| FC | .705265 | .2576926 | 26 |
| Total | .632404 | .2415475 | 52 |

Dependent Variable: POSTTEST

| Course | Type III Sum | ٦t | Mass Course | F | 0:- |
|-------------------|--------------------|----|-------------|--------|------|
| Source | of Squares | df | Mean Square | F | Sig. |
| Corrected Model | 1.369 ^a | 6 | .228 | 6.389 | .000 |
| Intercept | 1.499 | 1 | 1.499 | 41.988 | .000 |
| TUTOR | .173 | 1 | .173 | 4.847 | .033 |
| ITEM201 | .103 | 1 | .103 | 2.885 | .096 |
| PRETEST | .223 | 1 | .223 | 6.253 | .016 |
| TUTOR * ITEM201 | .036 | 1 | .036 | 1.011 | .320 |
| TUTOR * PRETEST | .022 | 1 | .022 | .622 | .435 |
| ITEM201 * PRETEST | .005 | 1 | .005 | .126 | .724 |
| Error | 1.607 | 45 | .036 | | |
| Total | 23.772 | 52 | | | |
| Corrected Total | 2.976 | 51 | | | |

a. R Squared = .460 (Adjusted R Squared = .388)

ANCOVA: Pretest and Item2 as covariates (ITEM201: A = 0, B = 1)

Between-Subjects Factors

| | | N |
|-------|----|----|
| TUTOR | BC | 26 |
| | FC | 26 |

Descriptive Statistics

Dependent Variable: POSTTEST

| TUTOR | Mean | Std. Deviation | N |
|-------|---------|----------------|----|
| BC | .559544 | .2039039 | 26 |
| FC | .705265 | .2576926 | 26 |
| Total | .632404 | .2415475 | 52 |

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|-----------------|-------------------------|----|-------------|--------|------|------------------------|
| Corrected Model | 1.259 ^b | 3 | .420 | 11.740 | .000 | .423 |
| Intercept | 3.227 | 1 | 3.227 | 90.263 | .000 | .653 |
| PRETEST | .650 | 1 | .650 | 18.168 | .000 | .275 |
| ITEM201 | .642 | 1 | .642 | 17.947 | .000 | .272 |
| TUTOR | .178 | 1 | .178 | 4.982 | .030 | .094 |
| Error | 1.716 | 48 | .036 | | | |
| Total | 23.772 | 52 | | | | |
| Corrected Total | 2.976 | 51 | | | | |

Tests of Between-Subjects Effects

Dependent Variable: POSTTEST

| Source | Noncent. Parameter | Observed Power ^a |
|-----------------|-----------------------|--------------------------------|
| Corrected Model | 35.220 | .999 |
| Intercept | 90.263 | 1.000 |
| PRETEST | 18.168 | .987 |
| ITEM201 | 17.947 | .986 |
| TUTOR | 4.982 | .590 |
| Error | | |
| Total | | |
| Corrected Total | | |

a. Computed using alpha = .05

Parameter Estimates

Dependent Variable: POSTTEST

| | | | | | 95% Confide | nce Interval | Partial Eta |
|------------|----------------|------------|--------|------|-------------|--------------|-------------|
| Parameter | В | Std. Error | t | Sig. | Lower Bound | Upper Bound | Squared |
| Intercept | .592 | .064 | 9.223 | .000 | .463 | .721 | .639 |
| PRETEST | .516 | .121 | 4.262 | .000 | .273 | .759 | .275 |
| ITEM201 | 234 | .055 | -4.236 | .000 | 345 | 123 | .272 |
| [TUTOR=BC] | 118 | .053 | -2.232 | .030 | 224 | 012 | .094 |
| [TUTOR=FC] | 0 _p | | | | | | |

Parameter Estimates

Dependent Variable: POSTTEST

| Parameter | Noncent. Parameter | Observed Power ^a |
|------------|-----------------------|--------------------------------|
| Intercept | 9.223 | 1.000 |
| PRETEST | 4.262 | .987 |
| ITEM201 | 4.236 | .986 |
| [TUTOR=BC] | 2.232 | .590 |
| [TUTOR=FC] | | |

a. Computed using alpha = .05

b. R Squared = .423 (Adjusted R Squared = .387)

 $[\]ensuremath{\text{b}}_{\cdot}$ This parameter is set to zero because it is redundant.

Estimated Marginal Means

TUTOR

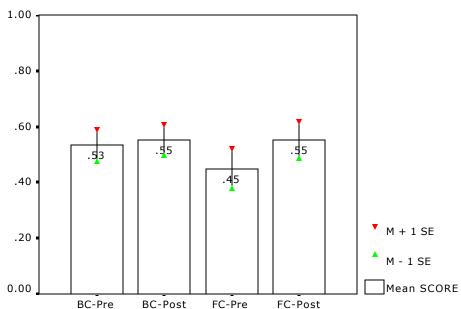
Dependent Variable: POSTTEST

| | | | 95% Confidence Interval | |
|-------|-------------------|------------|-------------------------|-------------|
| TUTOR | Mean | Std. Error | Lower Bound | Upper Bound |
| BC | .573 ^a | .037 | .499 | .648 |
| FC | .691 ^a | .037 | .617 | .766 |

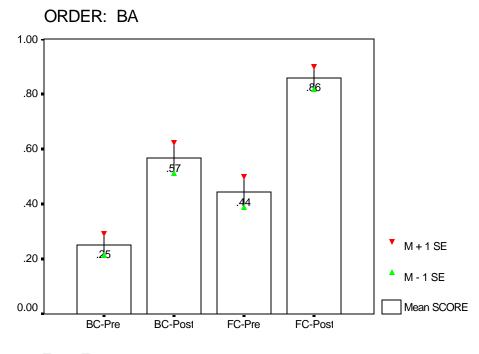
a. Covariates appearing in the model are evaluated at the following values: PRETEST = .419225, ITEM201 = .50.

Graph



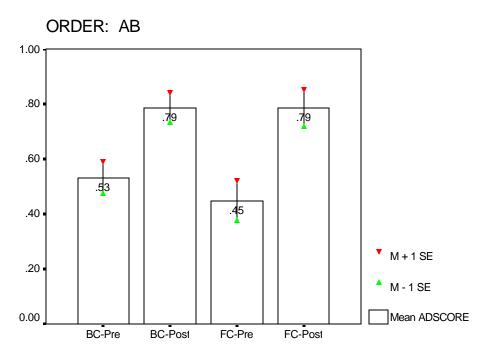


Tutor-Test



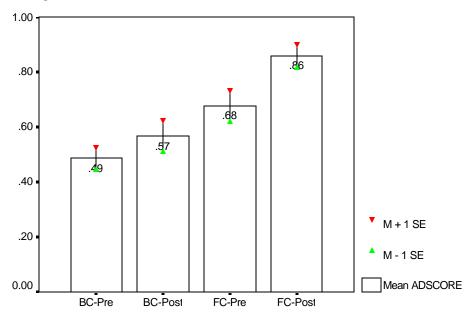
Tutor-Test

Graph: Test-B adjusted by 0.234



Tutor-Test





Tutor-Test