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Sample Data Presentation
Two-Way Anova test

Which instructor's intervention worked to increase score between the tests?

Between-Subject Factor

Instructor intervention

	1	2	3	4	5
Before Score					
Within-Subject Factor					
After Score	11 students	11 students	11 students	11 students	11 students

HYPOTHESES

Main Effect: Within-Subject Factor:

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

Main Effect: Between-Subject Factor:

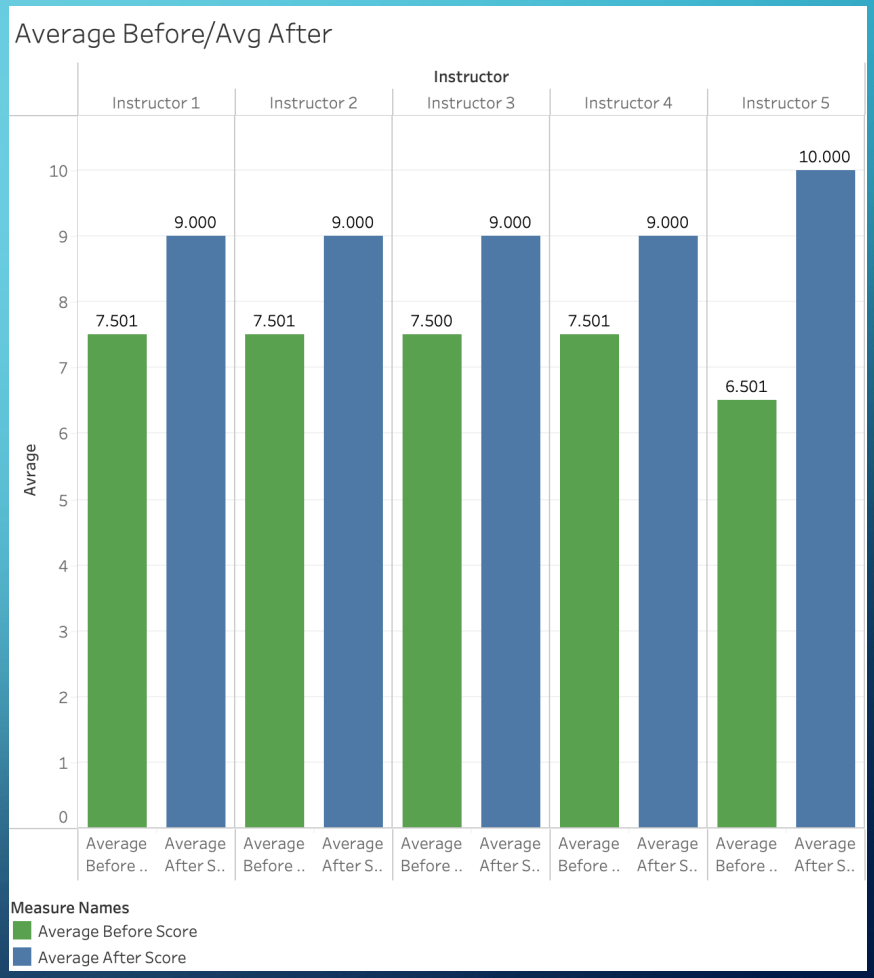
$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

H_1: *At least one group mean is not equal with others.*

Interaction Effect

H_0: *The effect of intervention does not depend on the effect of PrePost.*

H_1: *The effect of intervention depends on the effect of PrePost.*



COMPARISON TEST

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	PrePost	Type III Sum of Squares	df	Mean Square	F	Sig.
PrePost	Linear	99.199	1	99.199	48.080	<.001
PrePost * Instructor	Linear	17.596	4	4.399	2.132	.091
Error(PrePost)	Linear	103.160	50	2.063		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	7487.535	1	7487.535	573.213	<.001
Instructor	3.636E-6	4	9.091E-7	.000	1.000
Error	653.120	50	13.062		

A Repeated Measure Two-way ANOVA with Instructor as a between-subject factor and PrePost as a within-subjects factor was run.

*Note: The Sphericity Assumption is not violated (Mauchly's W (0)=1).

Main Effect: Within-Subject Factor: F(1, 50) = 48.08, p < .001

H_0: $\mu_1 = \mu_2$

H_1: $\mu_1 \neq \mu_2$

Main Effect: Between-Subject Factor: F(4, 50) = 0.00, p = 1

H_0: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

H_1: $At\ least\ one\ group\ mean\ is\ not\ equal\ with\ others.$

Interaction Effect F(4, 50) = 2.132, p =.091

H_0: $The\ effect\ of\ intervention\ does\ not\ depend\ on\ the\ effect\ of\ PrePost$

H_1: $The\ effect\ of\ intervention\ depends\ on\ the\ effect\ of\ PrePost$

THANK

YOU!