

FACTORIAL DESIGNS**1. Fasting and Meditation: Effects on Spiritual Awareness. 3 X 2 Factorial Design**

What are the effects of fasting and meditation on spiritual awareness? Levels of fasting were manipulated using 3 conditions (long-term, semi-long-term, and short-term). Levels of meditation were manipulated using 2 conditions (high and none). Participants self-reported their spiritual awareness.

Each of these experiments represents a different potential outcome. Graph and interpret the results using the cell means presented in the following tables. Indicate if there appears to be main effects or an interaction between fasting and meditation on spiritual awareness.

Experiment I

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	60	50	40
High Levels of Meditation	60	50	40

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment II

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	60	60	60
High Levels of Meditation	50	50	50

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment III

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	60	70	80
High Levels of Meditation	80	70	60

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment IV

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	90	80	70
High Levels of Meditation	60	50	40

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment V

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	60	60	60
High Levels of Meditation	70	60	50

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment VI

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	80	70	60
High Levels of Meditation	40	50	60

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

Experiment VII

	Shortterm Fasting	Semi-Longterm Fasting	Longterm Fasting
No Meditation	70	60	50
High Levels of Meditation	100	80	60

Graph the results:

Interpret the results:

Does there appear to be a main effect for fasting?

Does there appear to be a main effect for meditation?

Does there appear to be an interaction?

2. Swear Words, Alcohol, And Memory: A Factorial Analysis of Variance

This hypothetical study investigated the effect of alcohol (no alcohol vs. strong alcohol) on the ability of 20 introductory students to correctly recall either a list of non-swear words or a list of swear words. All participants were randomly assigned to conditions. This design was 2 X 2 and completely randomized. The dependent variable was the number of repetitions required for perfect recall.

Using the data below, fill in the missing information on the summary table that follows.

	Strong Alcohol	No Alcohol
Non-Swear Words	21	19
	22	20
	19	18
	18	17
	21	21
Swear Words	2	7
	5	7
	6	5
	3	6
	4	8

SUMMARY TABLE

Source of Variance	SS	Df	MS	F
Between				
A Words				
B alcohol				
A X B				
Within				
Total				

B. Graph the results using a line graph.

C. Interpret the findings.