

Psyc450 Exam #1 Write-up Guide for Factorial Designs

Food	Species		DV = number of feeding attempts
	Frog	Turtle	
Crickets	6	6	6
Worms	2	10	6
	4	8	

1. The Interaction

- a. Pick & explicate a set of simple effects to describe the pattern of the interaction.

Simple effect of food for each species
 Simple effect of food for Frogs
 Simple effect of food for Turtles

- b. Use "<, >, & =" to express the simple effects

Simple effect of food for each species
 Simple effect of food for Frogs crickets > worms
 Simple effect of food for Turtles worms > crickets

- c. Decide if there is an interaction yes -- simple effects in opposite directions

- d. Describe the pattern of the interaction

There is an interaction of species and food as they related to number of feeding attempts. Frogs made more feeding attempts when presented with crickets, whereas turtles made more feeding attempts when presented with worms.

2. One Main Effect -- pick species

- a. Use "<, >, & =" to express the main effects Turtles > Frogs

- b. Use "<, >, & =" to express the corresponding set of simple effects

simple effect of species for Crickets Turtles = Frogs
 simple effect of species for Worms Turtles > Frogs

- c. Describe the pattern of the main effect (and tell if it is potentially misleading)

There is a main effect for species, with turtles making more overall feeding attempts than frogs. However, this is not descriptive when crickets are presented (then there is no species difference).

3. Other Main Effect - must be food !

- a. Use "<, >, & =" to express the main effects Crickets = Worms

- b. Use "<, >, & =" to express the corresponding set of simple effects

simple effect of food for Frogs Crickets > Worms
 simple effect of food for Turtles Crickets < Worms

- d. Describe the pattern of the main effect (and tell if it is potentially misleading)

There is no main effect for food type, however this is misleading, since both species show a distinct food type preference but in opposite directions.