

Week 9 Polling

The one-way between-subjects ANOVA is used when different participants are assigned to _____ group(s).

One

Two

Two or more

Zero

What is the between-groups degrees of freedom for a study with $n = 12$ in each of four groups?

3

$$\begin{aligned}df &= k - 1 \\ &= 4 - 1 = 3\end{aligned}$$

4

32

36

What is the within-groups degrees of freedom for a study with $n = 10$ in each of three groups?

2

$$\begin{aligned}df &= N - k & N &= 10(3) = 30 \\ &= 30 - 3 = 27\end{aligned}$$

7

27

30

Homogeneity of variance refers to the assumption that:

Data in the population or populations being sampled from are normally distributed

The variance of scores in each population is equal

The probabilities of each measured outcome in a study are independent

The data were selected using a random sampling procedure

A researcher randomly assigns 33 adults to have a conversation with someone dressed casually, informally, or formally. Duration of eye contact (in seconds) was recorded. $SS_{\text{between}} = 30$, $SS_{\text{within}} = 104$. Set up the ANOVA table & make a decision ($\alpha = .05$).

Reject the null hypothesis

DV = duration of eye contact IV = tx level (casual, formal, informal)

Source	SS	df	ms	F
Tx	30	2	15	4.33
Error	104	30	3.467	
Total	134	32		

Fail to reject the null hypothesis

What is eta-squared for the previous problem?

.10

.22

.29

$$\eta^2 = \frac{30}{134} = 0.22$$

We should not calculate eta-squared because we did not find a significant effect.