Data Analysis and Statistical Inference Dr. Çetinkaya-Rundel Duke University

In-Video Quiz Questions for Unit 4: Part 4 – (3) Conditions for ANOVA

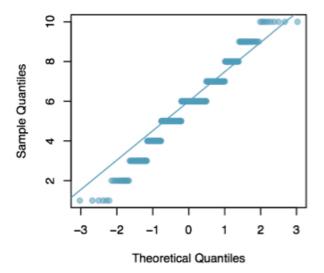
(02:23) – slide 3, after "You want to make sure that you can get to the bottom of how these data were collected so that you can make a call on whether the independence condition is met or not."

- 1. Which of the following is **false** about the independence condition for this analysis? Remember, data source is the General Social Survey (GSS), and there are 41 participants in lower, 407in working, 331 in middle, and 16 in upper class.
 - (a) Random sampling condition can be assumed to be met since the GSS likely selects participants randomly.
 - (b) Number of participants in each class are less than 10% of their respective populations.
 - (c) We can assume that one participant in a given class is independent of another participant in that class with respect to their vocabulary score.
 - (d) The groups are not independent since they come from the same sample of 795 participants who took the GSS.

(03:35) – slide 4, after "this might be something that we worry about in this analysis."

2. Why are there jumps in the normal probability plots? Choose the **best** answer.

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- (a) vocabulary scores are rounded
- (b) vocabulary scores can only be whole numbers since it's count data (number of questions answered correctly)
- (c) vocabulary scores are right skewed
- (d) vocabulary scores can't be negative

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Answers:

- 1. d
- 2. b