

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

(01:51)

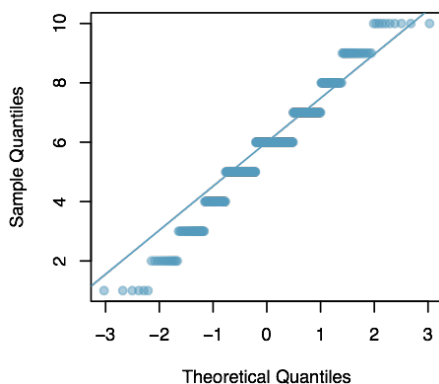
1. Which of the following is **false** about the independence condition for this analysis?

Remember, data source is the General Social Survey (GSS), and there are 41 participants in lower, 407 in 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.

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



- (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

**Answers:**

1. d

**Explanation:** The data for the three groups come from the same survey, but this doesn't mean the groups aren't independent. Lack of independence would be caused by having a correspondence between people in the three groups.

2. b

**Explanation:** Reason for the jumps is that the theoretical (normal) distribution is defined on a continuous scale but the vocabulary scores are discrete.