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Primary Research Questions

1. Are each of the four musical genres equally represented on Austin City Limits?
2. Are some genres more likely to draw a large (100K+) Twitter following than others?

Analysis

Let's break this question down into the different descriptive statistics that you will need to construct your answer. Be sure that your R output includes all of the following components.

Goodness of Fit Test:

1. Create a table to show the counts of each genre.
2. Create a vector of expected proportions.
3. Check the expected counts assumption.

4. Run a chi square test.
5. Interpret the chi square statistic and p-value.

Test of Independence:

1. Create a two-way table for genre and Twitter following.
2. Check the expected counts assumption.
3. Run a chi square test.
4. Interpret the chi square statistic and p-value.

(4 points possible)

Goodness of Fit Test

- 1a. What was the **expected count** of artists for each genre?

Answer: 29

- 1b. What was the **Chi-square** statistic? (report to 2 decimal places)

Answer: 70.41

1c. How many **degrees of freedom**?

Answer: 3

1d. What was the **p-value**?

less than 0.05

Hide Answer

You have used 0 of 1 submissions

(7 points possible)

Test of Independence

2a. Using the data from your two-way table, compute the proportion of artists in each genre with 100K+ Twitter followers. (Round to 3 decimal places).

Country?

Help

Answer: 0.353

Jazz?

Answer: 0.182

Rock?

Answer: 0.441

Singer-Songwriter?

Answer: 0.625

2b. What was the **Chi-square** statistic? (report to 2 decimal places)

Answer: 5.69

2c. How many **degrees of freedom**?

Answer: 3

2d. What was the **p-value**?

greater than 0.05

Hide Answer

You have used 0 of 1 submissions

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
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