

Does Sugar Improve Happiness? Correlation Analysis

Learn / Courses / Introduction to Statistics in Python

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Daily XP 1149

Exercise

Does sugar improve happiness?

A new column has been added to `world_happiness` called `grams_sugar_per_day`, which contains the average amount of sugar eaten per person per day in each country. In this exercise, you'll examine the effect of a country's average sugar consumption on its happiness score.

`pandas` as `pd`, `matplotlib.pyplot` as `plt`, and `seaborn` as `sns` are imported, and `world_happiness` is loaded.

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Question

Based on this data, which statement about sugar consumption and happiness scores is true?

Possible answers

☒ Increased sugar consumption leads to a higher happiness score.

☐ Lower sugar consumption results in a lower happiness score.

☐ Increased sugar consumption is associated with a higher happiness score.

☐ Sugar consumption is not related to happiness.

Submit Answer

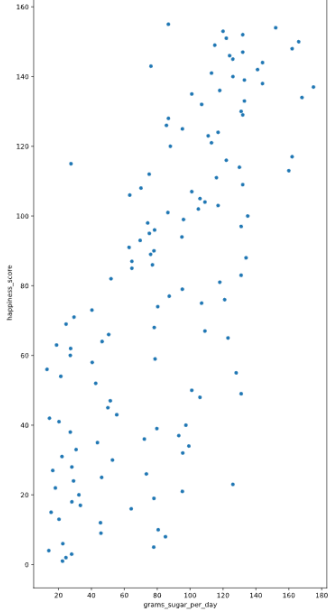
Take Hint (-15 XP)

script.py

1

Run Code

Plots



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IPython Shell

Slides

<script.py> output:
0.6939180821829633

In [1]:

Question:

Based on this data, which statement about sugar consumption and happiness score is true? Select the correct explanation based on the scatterplot and correlation coefficient.

Explanation of the Question:

This question asks you to interpret the relationship between sugar consumption (`grams_sugar_per_day`) and happiness score. The scatterplot

and correlation coefficient provide evidence for this relationship. A higher correlation suggests a stronger linear association.

Answer:

Correct Answer: Increased sugar consumption is associated with a higher happiness score.

Explanation:

The scatterplot shows a positive trend between `grams_sugar_per_day` and `happiness_score`. The computed correlation coefficient of 0.69 confirms a moderate positive linear association, indicating that countries with higher average sugar consumption tend to have higher happiness scores.