Okay, let's break down this multiple-choice question like a graduate statistics student. The core of this problem lies in understanding hypothesis testing, p-values, and the implications of failing to reject the null hypothesis.

Here's my analysis:

\* \*\*The Setup:\*\* We have a classic experimental design. Participants are randomly assigned to two groups (small assortment vs. large assortment). The outcome variable is "variety" – the number of \*different\* candy types chosen over 10 days. The null hypothesis is that the mean variety is the same in both groups. The alternative hypothesis is two-sided (meaning we're looking for a difference in \*either\* direction). The p-value is 0.21.

\* \*\*Understanding the P-value:\*\* The p-value (0.21) represents the probability of observing the data we did (or more extreme data) \*if the null hypothesis were true\*. In other words, if the mean variety \*is\* actually the same in both groups, there's a 21% chance we'd see the difference in variety we observed (or a bigger difference) due to random chance.

\* \*\*Decision Rule:\*\* We compare the p-value to a significance level (alpha), typically 0.05. Since 0.21 > 0.05, we \*fail to reject\* the null hypothesis. This is a \*very\* important distinction. Failing to reject the null does \*not\* mean we have proven the null is true. It simply means we \*don't have enough evidence\* to reject it.

\* \*\*Analyzing the Answer Choices:\*\*

\* \*\*(A) That the size of the assortment offered consumer participants does not cause them to change the variety of their choices\*\* This is the \*most\* accurate and nuanced answer. It states that we don't have sufficient evidence to claim the assortment size \*causes\* a change in variety-seeking behavior. It doesn't say that assortment size \*doesn't\* matter; it says we can't conclude that it does, based on the available data and p-value.

\* \*\*(B) That the average variety of choices that would be selected by SMU students under the two conditions is the same.\*\* This is \*close\* to the right idea, but it is too definitive. While this is \*consistent\* with our finding, we have not \*proven\* the average variety is the same. We have simply failed to \*disprove\* it.

\* \*\*(C) That there is insufficient evidence that the size of the assortment caused consumer participants to change their variety seeking behavior.\*\* This is also a good answer, conveying the idea that, based on the data and the p-value, we cannot draw a definitive conclusion that the assortment size impacts variety. It accurately conveys that we lack \*sufficient\* evidence. This and (A) are very similar; the wording of (A) is a little more precise because it emphasizes that the size \*does not\* cause change, whereas (C) emphasizes that we lack the evidence to conclude otherwise.

\* \*\*(D) That there is evidence that the size of the assortment caused consumer participants to alter their variety-seeking behavior.\*\* This is incorrect. The p-value is too high. We do \*not\* have evidence to reject the null hypothesis, which means we have no basis for concluding that the assortment size \*caused\* a change.

\* \*\*The Correct Answer:\*\*

Based on this analysis, \*\*(A) and (C)\*\* are essentially correct and very close to each other. Given that \*\*(A)\*\* specifically claims the size of the assortment does \*not\* cause a change, and we do not have sufficient evidence to prove otherwise, that choice is slightly more precise.

\*\*In conclusion: The best answer is (A).\*\*