Random Sampling Inferences

Today's Standard

7.SP.A2 - Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.

Real-World Applications for this Standard

Estimate the average height of students in a school by sampling a few classes.; Predict election results based on a sample survey of voters.; Estimate the average number of hours students study per week by sampling a few students.; Determine the average amount of time spent on homework by sampling students from different grades.

Today I Learned

Today, we learned about using random samples to make guesses about a big group of things. For example, we can guess how many people will vote for a school president by asking a few students.

Common Stumbling Blocks

Some kids think asking one group of people is enough to make a good guess. But we need to ask many groups to be sure. Others think bigger groups are always better, but that's not always true.

Quiz Me

- What is a random sample?
- Why do we need more than one sample?
- What does variation mean?
- Can we use random samples to guess who will win an election?
- Is a bigger sample always better?

Help Me

We use random samples to make guesses about big groups. For example, we can guess how many people will vote for a school president by asking a few students. This helps us make good guesses without asking everyone.