3.2 Sampling Good and Bad Part 3: How Sample Poorly Random Samples

In convenience sampling, the researcher chooses easy-to-reach members of the population.

In voluntary response sampling, people decide whether to join the sample.

Both sampling methods suffer from bias due to personal choice. The best way to avoid this problem is to let chance choose the sample. That's the idea of **random sampling**.

Random sampling involves using a chance process to determine which members of a population are included in the sample.

Using a random sample helps avoid bias. In random samples of 5 words, the sample means won't be consistently too high or consistently too low (about half of the sample means should be less than the true mean and about half should be greater than the true mean).

Example: The athletic department at El Dorado Community College wants to learn more about the physical fitness of students at the school, including the number of push-ups that students can perform. To obtain their sample, the athletic department sets up a booth in the center of campus with a sign that says "Free Physical Fitness Testing!"

a.) Explain how the athletic department at El Dorado Community College can avoid the bias previously identified.

* offer a reward for participating
* select random students of different ages & athletic abilities