

Sampling

[Science](#), [Statistics](#)



Module 4 - Case Sampling 49, 34, and 48 are selected from the Sophomore, Junior, and Senior es with 496, 348, and 481 respectively. Identify which type of sampling is used and why

Stratified random sampling is used. This is because approximately 10% of the students are selected from each of the Sophomore, Junior, and Senior classes with 496, 348, and 481 students respectively. Here, the population of students is divided into strata that are the Sophomore, Junior, and Senior classes.

2. The name of each contestant is written on a separate card, the cards are placed in a bag, and three names are picked from the bag. Identify which type of sampling is used and why

Simple random sampling is used because each contestant has the same chance of being chosen from the bag in the sample of three names.

3. An education expert is researching teaching methods and wishes to interview teachers from a particular school district. She randomly selects ten schools from the district and interviews all of the teachers at the selected schools. Does this sampling plan result in a random sample? Simple random sample? Explain.

This sampling plan results in a random sample, but not a simple random sample. The sample collected is a random sample because every school has the same chance of being selected. The sample is not a simple random sample because no teacher will be selected from schools that were not included in the ten schools selected. In other words, some schools have 100% representation in the sample while some schools have no representation at all.

4. A polling company obtains an alphabetical list of names of voters in a precinct. They select every 20th person from the list until a sample of 100 is obtained. They then call these 100 people. Does this sampling plan result in a random sample? Simple random sample? Explain.

This sampling plan results in a random sample, but not a simple random sample. This is a case of systematic random sampling. This is a random sample because each person on the list has an equal chance of being selected. This is not a simple random sample because once the first person is selected, the rest of the selections are already determined.

5. The personnel manager at a company wants to investigate job satisfaction among the female employees. One evening after a meeting she talks to all 30 female employees who attended the meeting. Does this sampling plan result in a random sample? Simple random sample? Explain.

No, this sampling plan does not result in a random sample and therefore not a simple random sample. This is a case of convenience sampling, as the personal manager only talks to all 30 female employees who attended the meeting that is whoever happens to be available.