

Survey: Chooses a sample of a population & interviews them to collect desired data.

Types of Samples:

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| Self-Selected: when a respondent volunteers their opinion in a survey. | Random: generating a sample from a population where every member has an equal chance of being selected. |
| Systematic: randomly selected at a starting point & then selecting every n th person from that point. | Stratified: dividing the population into like characteristics & then proportionally choosing a few individuals from each group to create sample. |
| Convenience: choosing or surveying the first few people you see to generate your sample. | Clustered: creating groups individually with unlike characteristics & randomly selecting a group to create your sample. |

Biased vs. Unbiased:

- Biased: when not every individual in the population has an equal chance of being selected.
- Unbiased: representative of the population you want information about.

Example: A teacher wants to find out how many hours students studied for a history quiz. Identify the type of sample described and if there is any bias:

a) Before leaving the room, the teacher asks students to write the number of hours they studied for the quiz on the whiteboard if they want to participate.

Self-selected, Bias

b) The teacher selects students randomly from an alphabetical list and asks the selected student how many hours they studied for the quiz.

Random, Unbiased