

Date: _____

Learning Goal

Unit 4 - Statistics

Day 2: Sampling

Jumping to Conclusions

Ryan and Jamie surveyed all the students watching last week's volleyball game about their interest in Intramural Volleyball.

After completing their survey, they went to Mrs. Clarke to tell her that she should make room for extra teams to play, because GHS students are really into volleyball!

What's wrong with Ryan and Jamie's research?

Jumping to Conclusions

What's wrong with Ryan and Jamie's research?

The _____
that Ryan and Jamie are interested in is
all GHS students.

Their _____ was students
watching a volleyball game after school.

Their sample was _____.

population

The _____ being
studied.

(who we are interested in)

sample - The group of people we

(who we ask)

census - When we sample

_____ in the

population

(think of the Canadian census)

What's What?

I am interested in determining how GHS students feel about _____

Population: _____

Sample: -
-
-
-
-

What's What?

I am interested in determining how Canadians feel

about _____

Population: _____

Sample:-

-
-
-
-
-

What's What?

I am interested in _____

Population:

Sample: -

-

-

Sampling Techniques

To avoid _____, we always sample _____.

There are 5 ways we can do this.

- 1. Simple Random Sample**
- 2. Stratified Sample**
- 3. Cluster Sample**
- 4. Convenience Sample**
- 5. Voluntary Sample**

Sampling Techniques

1. Simple Random Sample

All selections are _____

Examples:

Pros and **Cons**:

Sampling Techniques

2. Stratified Sample

1. The population is divided into _____.

2. A random sample is taken of each group.

**The number sampled from each group is _____ to the size of the group.

Examples:

Pros and **Cons**:

Sampling Techniques

3. Cluster Sample

1. The population is divided into _____.
2. A random number of _____ is chosen.
3. _____ in the chosen group(s) are surveyed.

Example:

Pros and **Cons**:

Sampling Techniques

4. Convenience Sample

A selection of the population is taken based on

_____ or

_____.

Examples:

Pros and **Cons**:

Sampling Techniques

5. Voluntary Sample

People _____ to
take part in the study.

Examples:

Pros and **Cons**:

What type of sampling am I?

- 1 In order to determine how Canadians like their eggs, I randomly choose 5% of people in each province to ask.
 - A Simple Random Sample
 - B Stratified Sample
 - C Cluster Sample
 - D Convenience Sample
 - E Voluntary Sample

What type of sampling am I?

- 2 In order to determine how many siblings GHS students have on average I survey every student that is currently in Grade 10.
- A Simple Random Sample
 - B Stratified Sample
 - C Cluster Sample
 - D Convenience Sample
 - E Voluntary Sample

What type of sampling am I?

- 3 I want to know if a Pizza Hut franchise would do well in Gravenhurst. To figure this out I survey everyone I run into on the street.
- A Simple Random Sample
 - B Stratified Sample
 - C Cluster Sample
 - D Convenience Sample
 - E Voluntary Sample

What type of sampling am I?

4 I want to know if GHS students would buy my country music CD if I recorded it. I go into the cafeteria at lunch, randomly select two tables and ask everyone at those tables.

- A Simple Random Sample
- B Stratified Sample
- C Cluster Sample
- D Convenience Sample
- E Voluntary Sample

What type of sampling am I?

5 I want to know if GHS students would buy my country music CD if I recorded it. I go into the cafeteria at lunch, and randomly ask 50% of the people at each table.

- A Simple Random Sample
- B Stratified Sample
- C Cluster Sample
- D Convenience Sample
- E Voluntary Sample

What type of sampling am I? ^a

6 I want to know if GHS students would buy my country music CD if I recorded it. I get a list of every student in the school and pick at random out of a big hat.

- A Simple Random Sample
- B Stratified Sample
- C Cluster Sample
- D Convenience Sample
- E Voluntary Sample

What type of sampling am I?

7 I want to know if GHS students would buy my country music CD if I recorded it. I ask any students that I run into between classes.

- A Simple Random Sample
- B Stratified Sample
- C Cluster Sample
- D Convenience Sample
- E Voluntary Sample

What type of sampling am I?

8 I want to know if GHS students would buy my country music CD if I recorded it. I put an announcement on asking people to come take a survey at lunch.

- A Simple Random Sample
- B Stratified Sample
- C Cluster Sample
- D Convenience Sample
- E Voluntary Sample

9 I am interested in how Gravenhurst residents feel about building a centre for senior citizens.
My population of interest is:

- A Senior citizens in Lindsay
- B All Canadians
- C All people in Ontario
- D All people in Lindsay
- E All people in Lindsay except senior citizens

10 I am interested in how Toronto residents feel about raising taxes in Ontario.

My population of interest is:

- A All residents of Ontario
- B All residents of Toronto
- C All residents of Canada
- D All adults in Toronto
- E All adults in Ontario