

Angeles City Science High School
English 10

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Section: 10-Hawking

Activity C

Directions: Choose three (3) from the given research terms below and explain them briefly using your own words. Then, give an example for each. A sample answer has been provided for you.

Element	Variable	Sample	Observation Unit
Population	Parameter	Sampling Unit	Research Methodology
Hypothesis	Null Hypothesis	Sampling Frame	Operational Hypothesis

1. Research Term: **Hypothesis**

A hypothesis is an educated guess on what will likely happen as a result from an experiment. There can either be an H_0 or null hypothesis and H_a , alternative hypothesis. Null hypothesis means that there is no difference between two groups or population. Alternative hypothesis is met when the result is the opposite of what null hypothesis is trying to interpret.

Example: After I experimented with lab rats following my study, I therefore conclude that this experiment has met a null hypothesis.

2. Research Term **Population**

A population is a group of any living species in which they have the similar traits or similar treatment in an experiment. A population can also have various traits between each other if they get similar treatment to each other. This is called random sampling in which the researcher chooses a random entity from a group.

Example: It is very difficult for a researcher to study a population consisting of hummingbirds.

3. Research Term: **Research Methodology**

It is how a researcher will perform his/her study through an experiment, theory, proofs, etc. Things such as the timeline, status and results of each experiment, issues that the researcher found while doing the study and much more. You shouldn't just include the experiments with success, you must also include the mistakes, issues, and everything during your study as other researchers can either formulate theories, learn from your mistakes, and they can develop new studies based from your failed experiments.

Example: Most theories come from failed experiments by researchers that shared their research methodologies.