

Using Scientific Method

The following describes an experiment to determine the effects of additional nitrogen on plant growth. Read the paragraph carefully, then answer the questions.

Dr. Row set up an experiment in which she planted bean seeds in two groups, A and B. After the seeds germinate, Group A was fed a balanced application of fertilizer with additional nitrogen, as recommended by most plant growers. Group B was grown under identical conditions, except the fertilizer they received contained no additional nitrogen. Dr. Row observed the plants for 1 month. You see the results in Figure 1 below.



1) What was the hypothesis for this experiment? (Use IF...THEN....Statement)

If I put extra N_2 on plants Then the plants will grow bigger Because it is recommended by most plant growers.

2) Which plants represents the control group? Explain your answer.

Group B , b/c most people don't have N_2 at home.

3) Which plants represent the experimental group? Why is this group of plants the experimental group?

Group A , b/c we gave it extra N_2

4) What is the independent variable(s)?

Amount of N_2

5) What is the dependent variable(s)?

Count Leaves


6) List all controlled variables in this experiment:

Type of plant , amount of water, Amount of light
Type of pot . . . Type of soil , Amount of soil

[Independent and Dependent Variables - YouTube](#)

Does the color of a car affect how fast you drive?

A psychologist randomly assigns participants to 4 conditions: red car, blue car, green car, and white car. Each participant is told to drive around an empty racetrack 50 times. The average speed (mph) is recorded.



Independent

- COLOR
- MANIPULATE
- TREATMENT
- CAUSE

VARIABLES
"VARY"

- TYPE OF CAR
- MOOD
- WEATHER
- AGE
- TRAFFIC
- COLOR

Dependent

CONSTANT

Independent and Dependent Variables



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