

Identify the Controls and Variables

Smithers thinks that a special juice will increase the productivity of workers. He creates two groups of 50 workers and assigns each group the same task (in this case, they're supposed to staple a set of papers). Group A is given the special juice to drink while they work. Group B is not given the special juice. After an hour, Smithers counts how many stacks of papers each group has made. Group A made 1,587 stacks. Group B made 2,113 stacks.



Identify the -

1. Control Group
2. Manipulated (Independent) Variable
3. Responding (Dependent) Variable
4. What should Smithers' conclusion be?
5. How could this experiment be improved upon?

Homer notices that his shower is covered in a strange green slime. His friend Barney tells him that coconut juice will get rid of the green slime. Homer decides to test this out by spraying half of the shower with coconut juice. He sprays the other half of the shower with water. After 3 days of "treatment" there is no change in the appearance of the green slime on either side of the shower.



6. What was the initial observation?

Identify the -

7. Control Group
8. Manipulated (Independent) Variable
9. Responding (Dependent) Variable
10. What should Homer's conclusion be?

Bart believes that mice exposed to microwaves will become extra strong (maybe he's been reading too much RadioactiveMan.) He decides to perform this experiment by placing 10 mice near a radio for 5 hours. He compared these 10 mice to another 10 mice that had not been exposed. His test consisted of a heavy block of wood that blocked the mouse food. He found that 8 out of 10 of the radiowaved mice were able to push the block away. 7 out of 10 of the other mice were able to do the same.

11. What was Bart's hypothesis?

Identify the

12. Control Group
13. Manipulated (Independent) Variable
14. Responding (Dependent) Variable
15. How could Bart's experiment be improved?



Krusty was told that a certain itching powder was the newest best thing on the market; it even claims to cause 50 % longer lasting itches. Interested in this product, he buys the itching powder and compares it to his usual produce. One test subject (A) is sprinkled with the original itching powder, and another test subject (B) is sprinkled with the Experimental itching power. Subject A reported having itches for 30 minutes, Subject B reported to have itches for 10 hours.



Identify the-

16. Control Group

17. Manipulated (Independent) Variable

18. Responding (Dependent) Variable

19. What should Krusty's conclusion be?

Lisa is working on a science project. Her task is to answer the question: "Does Rogooti (which is a commercial hair product) affect the speed of hair growth?" Her family is willing to volunteer for the experiment.



20. Describe how Lisa would perform this experiment. Identify the control group, and the manipulated and responding variables in your description.

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