

Name:

Student number:

Age:

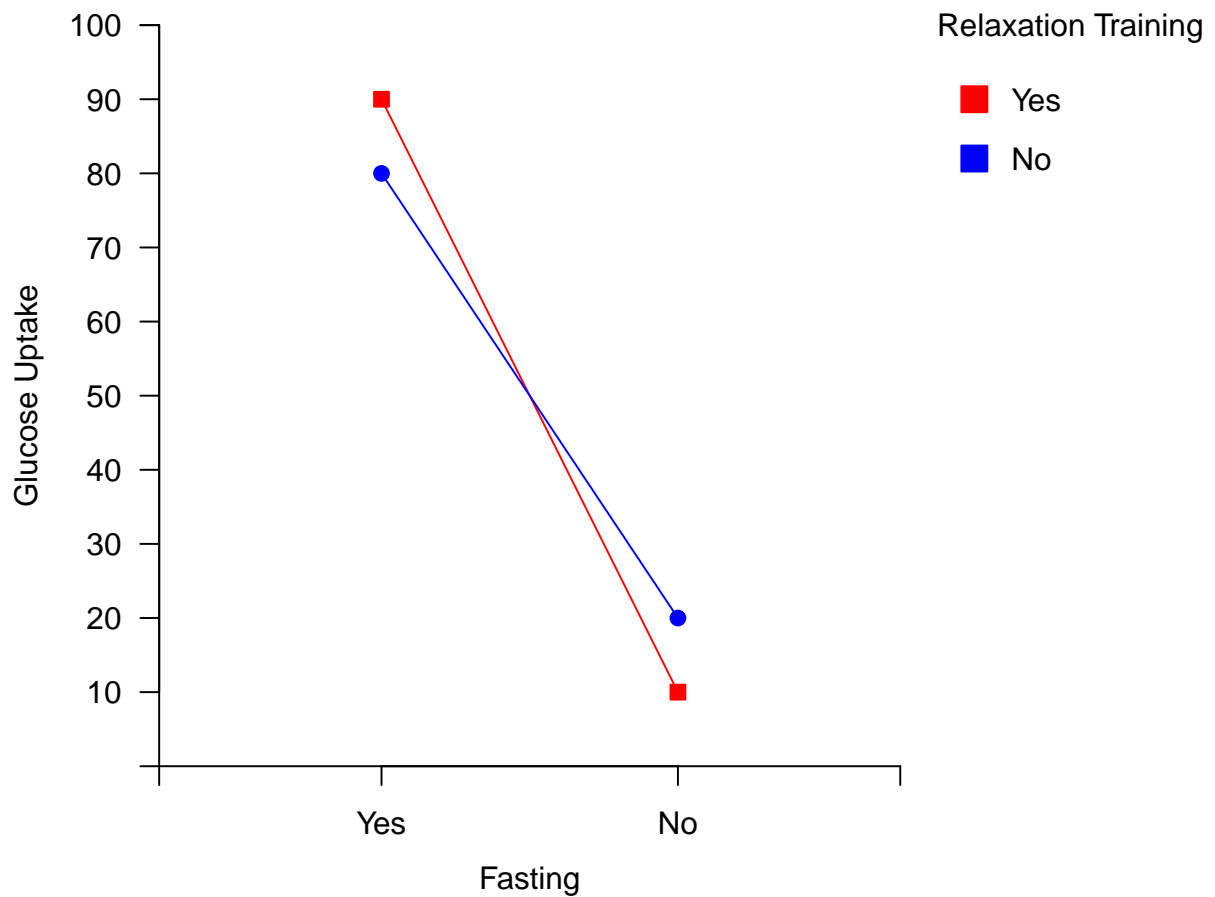
Sex: M / F (circle as appropriate)

Course:

Introduction

This questionnaire is intended to assess your ability to interpret a type of graph commonly used in undergraduate psychology courses. Below you will see one of these graphs. Your task is to study it and try to understand it as best you can. When you feel ready to proceed, then try to answer the sixteen questions about the graph. **Please try to answer every question as completely and as accurately as you can.**

Glucose Uptake as a function of Fasting and Relaxation Training



1. Insert variable names into the spaces below to produce statements that accurately describe the causal relationships between the three variables in the graph. You may not need to complete all of the statements below to describe all of the correct causal relationships in the graph.

- a. _____ is affected by _____.
- b. _____ is affected by _____.
- c. _____ is affected by _____.
- d. _____ is affected by _____.
- e. _____ is affected by _____.
- f. _____ is affected by _____.

2. Write down the dependent variable(s).

3. Write down the independent variable(s).

4. Look at the pattern in the centre of the graph and place letters to indicate which parts of the pattern represent the following (e.g., write the letter 'a' on the part of the graph you think represents people who are fasting and doing relaxation training)

- a. Fasting and relaxation training.
- b. No fasting and no relaxation training.
- c. The average value of glucose uptake with fasting.
- d. The average value of glucose uptake with no relaxation training.

5. Looking at the graph, what should you do if you wanted to uptake the largest amount of glucose?

6. Overall, does fasting result in a higher level of glucose uptake?

7. Consider the fasting variable. Write down one or more statements that compares fasting and no fasting in terms of the amount of glucose taken up.

8. Write a statement comparing the effect on glucose uptake of fasting and no fasting for people not doing relaxation training.

9. What do the data suggest you should do if you want to obtain the smallest amount of glucose uptake?

10. Write a statement comparing the effect on glucose uptake of relaxation training and no relaxation training for people who are fasting.

11. Write one or more statements to describe the effect that relaxation training has on glucose uptake compared to no relaxation training.

12. Overall, does relaxation training result in a lower glucose uptake than no relaxation training?

13. Looking at the graph, do you think that it shows a “main effect” of one or more of the variables? If so, write the variable name(s) in the slots provided below. You may not need to complete any or all of the statements below. Circle response d if you don’t know what a “main effect” is.

- a. There is a main effect of the _____ variable.
- b. There is a main effect of the _____ variable.
- c. There is a main effect of the _____ variable.
- d. I don’t know what a “main effect” is.

14. Looking at the graph, do you think that it shows an “interaction” between any of the variables? If so, write the variable name(s) in the slots provided below. You may not need to complete any or all of the statements below. Circle response d if you don’t know what an “interaction” is.

- a. There is an interaction between _____ and _____.
- b. There is an interaction between _____ and _____.
- c. There is an interaction between _____ and _____.
- d. I don’t know what an “interaction” is.

15. One of these statements is unambiguously true. Circle the letter identifying the correct statement:

- a. Relaxation training increases glucose uptake.
- b. The effects of fasting and relaxation training on glucose uptake are equal.
- c. Considered on its own, fasting has little effect on glucose uptake.
- d. Considered on its own, relaxation training has no effect on glucose uptake.
- e. I don’t know which of a, b, c or d to select.

16. Imagine you had to describe what the graph was about and summarise what its message was to a friend. Write down one or more statements that encapsulate the meaning of the graph.