



EXPERIMENTAL PSYCHOLOGY PRESENTATION

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EXPERIMENTAL DESIGN

NAME

ROLL NOS

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WHAT IS INDEPENDENT VARIABLE?

- The independent variable is the characteristic of a psychology experiment that is manipulated or changed.
- For example, in an experiment looking at the effects of studying on test scores, studying would be the independent variable.

WHAT IS DEPENDENT VARIABLE?

- The dependent variable is the variable that is being measured in an experiment.
- For example, in a study looking at how tutoring impacts test scores, the dependent variable would be the participants test scores, since that is what is being measured.

WHAT IS CONTROL VARIABLE?

- The control variable (or scientific constant) in scientific experimentation is the experimental element which is constant and unchanged throughout the course of the investigation.
- The control variable strongly influences experimental results, and it is held constant during the experiment in order to test the relative relationship of the dependent and independent variables.
- The control variable itself is not of primary interest to the experimenter.

WHAT IS EXTRANEEOUS VARIABLE?

- An Extraneous Variable is something that the experimenter cannot control, which can have an effect on the overall outcome of the experiment.
- The main four extraneous variables are demand characteristics, experimenter effects, participant variables and situational variables.

EXAMPLES OF EXTRANEOUS VARIABLES

- Researchers want to investigate whether a new teaching method can improve student scores on math exams. One extraneous variable that might influence the results would be whether students have previous knowledge of the math covered on the exam.
- Researchers want to determine if listening to fast-paced music improves performance during a marathon. Extraneous variables might include the volunteers' physical condition, motivation to succeed, and overall energy levels on the day of the marathon.
- Researchers want to determine how sleep deprivation impacts driving performance.
- Extraneous variables might include the road conditions of the day of the driving test and individual differences in how participants cope with tiredness.

WHAT IS EXPERIMENTAL GROUP?

- In a psychology experiment, the experimental group (or experimental condition) refers to the group of participants who are exposed to the independent variable.
- These participants receive or are exposed to the treatment variable.

WHAT IS CONTROL GROUP?

- The control group is composed of participants who do not receive the experimental treatment.
- When conducting an experiment, these people are randomly selected to be in this group.

**HYPOTHESIS:- EFFECTS OF PRACTICE ON
LEARNING.**

**EXPERIMENTAL GROUP:- 30 PARTICIPANTS (15)
10-12 AGE GROUP.**

EXPERIMENTAL DESIGN:-RANDOMIZED DESIGN.

STATISTICAL TOOL USED:- t TEST.

MATHS SHEET

- 1. $(4+7) \times 3 =$
- 2. $12 - (2 \times 5) =$
- 3. $(60/10) - 8 =$
- 4. $25 + (3 \times 8) =$
- 5. $10 / (17 - 15) =$
- 6. $3 \times (12 - 4) =$
- 7. $9 - (2 \times 7) =$
- 8. $(24/6) - 10 =$
- 9. $(9 \times 6) - 42 =$
- 10. $50 - (4 \times 9) =$
- 11. $27 / (81/9) =$
- 12. $(5 \times 11) - (3 \times 20) =$
- 13. $(30 - 12) \times (20/10) =$
- 14. $(16 + 11) - (5 \times 6) =$
- 15. $(8 \times 6) / (1.5 + 2.5) =$

INDEPENDENT VARIABLE

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graph TD; A[INDEPENDENT VARIABLE] --> B[EXPERIMENTAL GROUP]; A --> C[CONTROL GROUP]; B --> D[PRACTICE]; C --> E[OTHER ACTIVITY]
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The diagram is a hierarchical flowchart. At the top is a light green box labeled 'INDEPENDENT VARIABLE'. A vertical line descends from this box and splits into two horizontal lines. The left horizontal line leads to a light green box labeled 'EXPERIMENTAL GROUP'. The right horizontal line leads to a light green box labeled 'CONTROL GROUP'. From the bottom of the 'EXPERIMENTAL GROUP' box, a vertical line descends and then turns left to connect to a light green box labeled 'PRACTICE'. Similarly, from the bottom of the 'CONTROL GROUP' box, a vertical line descends and then turns left to connect to a light green box labeled 'OTHER ACTIVITY'.

EXPERIMENTAL GROUP

CONTROL GROUP

PRACTICE

OTHER ACTIVITY

**DEPENDENT
VARIABLE**



**TIME TAKEN
&
ERROR**

EXTRANEOUS VARIABLE

PLACE

TEMPERATURE

ENVIRONMENTAL
NOISES

AGE

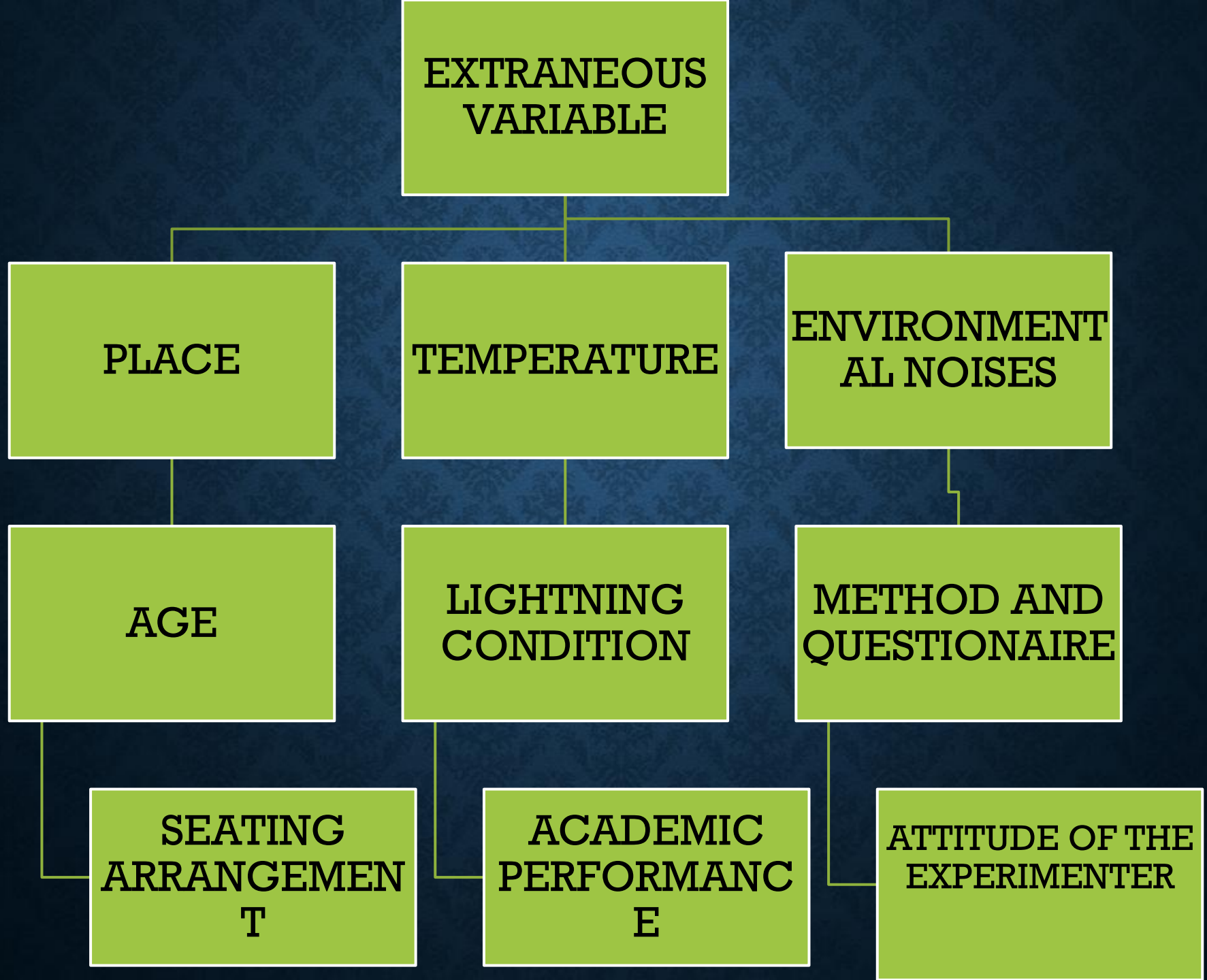
LIGHTNING
CONDITION

METHOD AND
QUESTIONNAIRE

SEATING
ARRANGEMENT

ACADEMIC
PERFORMANCE

ATTITUDE OF THE
EXPERIMENTER



CONCLUSION

- The present experiment tells us the differences between experimental group and control group .
- Group age is 10 to 12years.
- This experiment based on effect of practice on learning.
- The result is positive on experimental group because of the practice given to them by the experimenter and negative effect on control group because of no practice given to them.

THANK YOU