Locomotor Activity and Rotarod - Supplied Data

Experiment 17 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Teaching mode: use approved simulation, prepared demonstration records or supplied experimental data. No live-animal dosing, surgery or challenge is prescribed in these notes.

Aim

To compare movement and coordination datasets

Principle

Locomotor counts and coordination performance measure different aspects of behaviour and can help identify confounding effects.

Requirements

- Instructor-provided labelled diagrams, traces or data for this activity.
- Calculator, graph paper or spreadsheet, and the activity record.

Procedure

1. Define the endpoint

Record activity counts and time on the rotating-rod dataset and its units or scale definition.

2. Read and compare

Analyse each endpoint separately and compare baseline, control and treated records; do not equate lower activity with one specific mechanism.

3. Present the evidence

Create a labelled table or graph with all supplied groups and time points; preserve replicate values.

4. Assess the conclusion

State the direction/magnitude of the observed change, variation and the limitation of the model.

Observations and Record

Record item	Entry
Activity / material identifier	_____
Measurement or visible feature	_____
Comparison / calculated outcome	_____
Interpretation and limitation	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Change (%) = (later − baseline) / baseline × 100.
- Example: activity falls from 200 to 150 counts, a −25% change.

Result

The recorded finding is ____; the supporting observation or calculation is ____. The main limitation is ____.

Precautions

- Use the supplied teaching material; distinguish a measured observation from an assumed value.
- Keep units, axes, labels and measurement conditions consistent.
- Record limitations and seek instructor review before applying a conclusion to a live case.

Viva Questions and Answers

1. What is the measured endpoint?

Activity counts and time on the rotating-rod dataset.

2. What prevents an overstatement?

Use the defined model, valid controls, variation and known confounders; do not generalise beyond the supplied evidence.

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