Congratulations! You passed!

Next Item

1 / 1 point

1. What primarily distinguishes a oneway repeated measures ANOVA from a oneway ANOVA?

- [ ] The presence of multiple factors.
- [ ] The presence of a between-subjects factor.
- [x] The presence of a within-subjects factor.

Correct

- [ ] The presence of both between- and within-subjects factors.
- [ ] None of the above.

1 / 1 point

2. All else being equal, which of the following is a reason to use a within-subjects factor instead of a between-subjects factor?

- [ ] The data is more reliable.
- [x] The data exhibits less variance.

Correct

- [ ] The factors are easier to analyze.
- [ ] The exposure to confounds is less.
- [ ] Less time from each subject is required.

1 / 1 point

3. In a repeated measures experiment, why should we encode an *Order* factor and test whether it is statistically significant? (Mark all that apply.)

- [x] To examine whether the presentation order of conditions exerts a statistically significant effect on the response.

Correct

- [x] To examine whether any counterbalancing strategies we used were effective.

Correct

- [x] To examine whether an order confound has affected our results.

Correct

- [ ] To examine whether our factors cause changes in our response.

Un-selected is correct

- [ ] To examine whether our experiment discovered any differences.

Un-selected is correct

✔

1 / 1 point

4. How many subjects would be needed to fully counterbalance a repeated measures factor with four levels?

- ○ 4
- ○ 8
- ○ 16
- ◉ 24

Correct

- ○ 32

✔

1 / 1 point

5. For an even number of conditions, a balanced Latin Square contains more sequences than a Latin Square.

- ○ True
- ◉ False

Correct

✔

1 / 1 point

6. For a within-subjects factor of five levels, a balanced Latin Square would distribute which of the following number of subjects evenly across all sequences?

- ○ 5
- ○ 15
- ◉ 20

Correct

- ○ 25
- ○ 35

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7. Which is the key property of a long-format data table?

1 / 1 point

- [x] Each row contains only one data point per response for a given subject.

Correct

- [ ] Each row contains all of the data points per response for a given subject.
- [ ] Each row contains all of the dependent variables for a given subject.
- [ ] Multiple columns together encode all levels of a single factor.
- [ ] Multiple columns together encode all measures for a given subject.

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8. Which is not a reason why Likert-type responses often do not satisfy the assumptions of ANOVA for parametric analyses?

1 / 1 point

- [ ] Despite having numbers on a scale, the response is not actually numeric.
- [ ] Responses may violate normality.
- [x] The response distribution cannot be calculated.

Correct

- [ ] The response is ordinal.
- [ ] The response is bound to within, say, a 5- or 7-point scale.

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9. When is the Greenhouse-Geisser correction necessary?

1 / 1 point

- [ ] When a within-subjects factor of 2+ levels violates sphericity
- [ ] When a within-subjects factor of 2+ levels exhibits sphericity
- [x] When a within-subjects factor of 3+ levels violates sphericity

Correct

- [ ] When a within-subjects factor of 3+ levels exhibits sphericity
- [ ] None of the above.

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10. If an omnibus Friedman test is non-significant, *post hoc* pairwise comparisons should be carried out with Wilcoxon signed-rank tests.

1 / 1 point

- [ ] True
- [x] False

Correct