



Congratulations! You passed!

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point

1. A mixed model is "mixed" because it contains both between-subjects and within-subjects factors.

☐ True

☒ False

Correct

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2. Which of the following best describes fixed effects?

☒ Fixed effects are manipulated factors whose chosen levels are of explicit interest.

Correct

☐ Fixed effects are manipulated factors whose levels are sampled randomly from a larger population of interest.

☐ Fixed effects are random factors whose chosen levels are of explicit interest.

☐ Fixed effects are random factors whose levels are sampled randomly from a larger population of interest.

☐ None of the above.

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3. Random effects are called "random" in part because their levels are randomly sampled from a larger population about which we wish to generalize.

☒ True

Correct

☐ False

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4. Linear mixed models (LMMs) can handle Poisson response distributions.

☐ True

☒ False

Correct

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5. Which is not an advantage of a linear mixed model (LMM)?

☐ The ability to handle within-subjects factors.

☐ The ability to handle unbalanced designs.

☐ The ability to handle missing data.

☒ The ability to handle non-normal response distributions.

Correct

☐ The ability to handle violations of sphericity.



6. Analyses of variance using linear mixed models (LMMs) tend to produce smaller residual degrees of freedom than traditional fixed-effects ANOVAs.

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☐ True

☒ False

Correct



7. Nesting is useful when the levels of a factor are not meaningful when pooled across all levels of the other factors.

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☒ True

Correct

☐ False



8. Nesting is necessary when we wish to calculate the means and variances of a nested factor's levels only *within* the levels of the other factors, that is, the nesting factors.

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point

☒ True

Correct

☐ False



9. Linear mixed models (LMMs) generalize the linear model (LM) to non-normal response distributions.

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☐ True

☒ False

Correct



10. Generalized linear mixed models (GLMMs) generalize the linear mixed model (LMM) to non-normal response distributions.

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☒ True

Correct

☐ False



11. Why are planned pairwise comparisons important? (Mark all that apply.)

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☐ Planned pairwise comparisons enable experimenters to communicate more effectively with the public.

Un-selected is correct

☒ Planned pairwise comparisons force the experimenter to consider his or her hypotheses before the data arrives to prevent revisions.

Correct

☒ Planned pairwise comparisons should be based on *a priori* hypotheses and therefore prevent "fishing expeditions" for significant *p*-values.

Correct

☐ Planned pairwise comparisons ensure that research funds are only used for anticipated purposes.

Un-selected is correct

☐ Planned pairwise comparisons guarantee that significant differences, if they exist, will be found eventually.

Un-selected is correct



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12. Generalized linear mixed models (GLMMs) are capable of handling repeated measures factors via random effects and non-normal response distributions.



True

Correct



False