

Nutrition Bars - Mar19 Milestone

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1. Provide your final repeated measures model for glucose using the nutritionist's data
 - a. The final repeated measure model includes Nutrition Bar, Participant, Minutes, and the interaction between Nutrition Bar and Minutes. The final model is provided below. See the summary table for details.

Error: Participant

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
NutritionBar	2	1503.3889	751.69444	16.27893	0.0010237
Residuals	9	415.5833	46.17593	NA	NA

Error: Within

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Minutes	2	696.2222	348.11111	23.675063	0.0000091
NutritionBar:Minutes	4	397.7778	99.44444	6.763224	0.0016612
Residuals	18	264.6667	14.70370	NA	NA

2. Briefly describe how you created this model including:
 - a. What terms are fixed vs. random?
 - i. The Nutrition Bar, Gender, and Minutes variables are fixed while the Participant variable is random. Participants are random because we are not interested in the effects of the individual participants, but the overall participant effect. Brand, gender, and minutes are fixed because we are only interested in the selected levels.
 - b. What terms are nested?
 - i. 'Participant' is nested within 'NutritionBar'. This was chosen since participants only received one nutrition brand each.
 - c. How did you reduce the model (e.g. using backward elimination with an 0.05 alpha-level)?
 - i. Model reduction was performed using backward elimination with an 0.05 alpha-level.

3. Provide residual plots to assess the model assumptions for your final model above.

