

Exercises: Module 1

If you have any questions as you go through these, feel free to ask them in the forum.

1. If you haven't done so recently, watch the Fixed and Random Factors Video. If you want a refresher, watch Dummy and Effect Coding as well. Both are on the Bonus Materials page of the workshop website.
2. For the Swallowing Data Set, identify the following:
 - a. Which variable identifies a subject?
 - b. Are there any between-subjects factors?
 - c. Are there any within-subjects factors? Do they have unique values per trial?
 - d. Are there any time-varying covariates?
 - e. Are there any time-invariant covariates?
 - f. For each predictor variable in the data set, indicate if it is measured at level 1 or level 2.
 - g. For each combination of factors, indicate if the factors are crossed or nested. If nested, which is nested in which?
 - h. List all the factors in the table below and all the interactions for the crossed factors. Now check off whether each variable or interaction is fixed or random. (Really, if you haven't listed to the webinar on Fixed or Random effects, do it now).

Factor	Fixed	Random

3. For the Infant Data Set, identify the following:
- Which variable identifies a subject?
 - Are there any between-subjects factors?
 - Are there any within-subjects factors? Do they have unique values per trial?
 - Are there any time-varying covariates?
 - Are there any time-invariant covariates?
 - For each predictor variable in the data set, indicate if it is measured at level 1 or level 2.
 - For each combination of factors, indicate if the factors are crossed or nested. If nested, which is nested in which?
 - List all the factors in the table below and all the interactions for the crossed factors. Now check off whether each variable or interaction is fixed or random.

Factor	Fixed	Random

4. For the County Data Set, identify the following:
 - a. Which variable identifies a subject?
 - b. Are there any between-subjects factors?
 - c. Are there any within-subjects factors? Do they have unique values per trial?
 - d. Are there any time-varying covariates?
 - e. Are there any time-invariant covariates?
 - f. For each predictor variable in the data set, indicate if it is measured at level 1 or level 2.
 - g. For each combination of factors, indicate if the factors are crossed or nested. If nested, which is nested in which?
 - h. List all the factors in the table below and all the interactions for the crossed factors. Now check off whether each variable or interaction is fixed or random.

Factor	Fixed	Random