Participant Quiz
Module 1: Statistical Background on Multi-level Models

1. Which of the following are synonyms for a "multilevel model": *(choose all correct answers)*

    a. random effects model
    b. mixed model
    c. hierarchical model
    d. random coefficient model
    e. bathing-suit model

2. The key components of a multilevel model are: *(choose all correct answers)*

    a. predictor variables that represent many levels of influence from cell to society
    b. interactions among variables representing different levels
    c. inferences that account for correlation among observations within clusters
    d. random effects
    e. empirical variance estimates

3. Statistical models are: *(choose all correct answers)*

    a. tools for inference
    b. accurate representations of biological, psychological and social processes
    c. like dinners out; the more the merrier
    d. approximations to reality that allow scientists to use data to ask questions
    e. what keep companies like STATA, SUDAAN and SAS in business

4. In linear regression, failure to account for correlation among observations within clusters will: *(choose all correct answers)*

    a. give biased estimates of regression coefficients
    b. give incorrect standard errors, but correct p-values
    c. give incorrect standard errors and incorrect p-values
    d. give you a real dilemma when your scientific paper is repudiated after being published

5. In logistic regression, marginal and random effects models give: *(choose all correct answers)*

    a. the same estimates of regression coefficients and the same estimates of standard errors
    b. the same estimates of regression coefficients but different estimates of standard errors
    c. regression coefficients with the same interpretations but different values in many applications
    d. regression coefficients with different interpretations and different values in many applications