

Longitudinal Structural Equation Modeling by Todd D. Little
Chapter 3 Reading Questions

1. Which type of missingness is nonignorable and hard to recover?
 - A. MCAR
 - B. MAR
 - C. MNAR**
 - D. MSAR

2. A participant's data are missing because they were sick on the day of survey collection. Their data is most likely missing due to...
 - A. Missing Completely At Random (MCAR)**
 - B. Missing At Random (MAR)
 - C. Missing Not At Random (MNAR)
 - D. Not enough information to determine.

3. A participant's data are missing because they did not score high enough on the screening questions, which are included in the data. Their data is most likely missing due to...
 - A. Missing Completely At Random (MCAR)
 - B. Missing At Random (MAR)**
 - C. Missing Not At Random (MNAR)
 - D. Not enough information to determine.

4. A participant's data are missing because the answers to those questions made them uncomfortable to answer. Their data is most likely missing due to...
 - A. Missing Completely At Random (MCAR)
 - B. Missing At Random (MAR)
 - C. Missing Not At Random (MNAR)**
 - D. Not enough information to determine.

5. Which missing data mechanism is assumed when utilizing list-wise deletion?
 - A. Missing Completely At Random (MCAR)**
 - B. Missing At Random (MAR)
 - C. Missing Not At Random (MNAR)
 - D. Not enough information to determine.

6. Which missing data mechanism is assumed when utilizing multiple imputation?
 - A. Missing Completely At Random (MCAR)
 - B. Missing At Random (MAR)**
 - C. Missing Not At Random (MNAR)
 - D. Not enough information to determine.

7. Which missing data treatment method reduces the amount of bias caused by missingness.
 - A. List-wise deletion
 - B. Mean-substitution
 - C. Full-information Maximum Likelihood
 - D. Multiple Imputation

E. C and D

F. All of the above

8. When evaluating missing data with FIML, which variables will be used to compensate of missing observations?
- A. All variables in the data.
 - B. Only variables listed as “auxiliary” variables.
 - C. Only variables provided in the model.
 - D. Any variables provided in the model and any auxiliary variables.**
9. What is NOT a goal of modern treatments of missing data?
- A. Recover lost power.
 - B. Reduce bias caused by missingness.
 - C. Recover sufficient statistics to be what they would have been had data not gone missing.
 - D. Accurately recover specific participant observations.**
10. In general, how many imputed data sets is it recommended to generate?
- A. 100**
 - B. 20
 - C. 5
 - D. 1