

## Supplement A: Check-list Template

### ➔ get yourself ready

- data collected
- design reviewed
- statistics reviewed
- objective determined

project goals: \_\_\_\_\_

specific analysis objective: \_\_\_\_\_

### ➔ get your data ready

- data entered  
source file locations = \_\_\_\_\_
- data screened by \_\_\_\_\_

### ➔ structure your data

- sampling adequacy checked  
modifications made and why: \_\_\_\_\_
- main matrix structured  
main matrix filename: \_\_\_\_\_  
main matrix structure: \_\_\_\_\_ rows of \_\_\_\_\_ X \_\_\_\_\_ columns of \_\_\_\_\_  
main matrix contents: \_\_\_\_\_
- second matrix structured to match main matrix  
second matrix filename: \_\_\_\_\_  
second matrix structure: \_\_\_\_\_ rows of \_\_\_\_\_ X \_\_\_\_\_ columns of \_\_\_\_\_  
second matrix contents: \_\_\_\_\_
- trait matrix structured to match main matrix (transpose)  
trait matrix filename: \_\_\_\_\_  
trait matrix structure: \_\_\_\_\_ rows of \_\_\_\_\_ X \_\_\_\_\_ columns of \_\_\_\_\_  
trait matrix contents: \_\_\_\_\_

### ➔ explore and prepare your response data

- what have you really measured? \_\_\_\_\_  
\_\_\_\_\_
- what do your zeros mean? \_\_\_\_\_  
\_\_\_\_\_
- non-comparable responses made comparable by \_\_\_\_\_  
\_\_\_\_\_
- how heterogeneous are the data? \_\_\_\_\_  
\_\_\_\_\_
- % zeros? \_\_\_\_\_ average skewness? \_\_\_\_\_ / \_\_\_\_\_ average CV totals? \_\_\_\_\_ / \_\_\_\_\_
- what are likely sources of noise? \_\_\_\_\_
- distance measure selected = \_\_\_\_\_  
justification: \_\_\_\_\_
- any outliers? \_\_\_\_\_

➔ **select a model form and tools**

- what are your hypothesized relationships? \_\_\_\_\_  
\_\_\_\_\_
- what model form(s), if any, is best? \_\_\_\_\_  
justification: \_\_\_\_\_
- which tools selected? why? \_\_\_\_\_  
\_\_\_\_\_

➔ **modify the data as needed**

- are transformations to meet assumptions necessary? why? which ones? \_\_\_\_\_  
\_\_\_\_\_
- is reweighting necessary? why? how? \_\_\_\_\_  
\_\_\_\_\_

➔ **apply the selected tools**

- what do you expect to find? \_\_\_\_\_  
\_\_\_\_\_

➔ **confirm your patterns**

- which other analyses run? how alike were the findings? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

➔ **interpret your results**

- graphing tools applied and statistics calculated
- data and output files saved as a 'project'  
project file name and location = \_\_\_\_\_  
\_\_\_\_\_
- story: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

➔ **present your 'story'**

- summary information saved for presentation
- graphical output customized for presentation  
graphic file names and locations = \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_