

1. Run the first example in umxRAM (like last week)
2. Get a `umxSummary(m1, showEstimates = "raw")`
 - Does it fit well?
3. Get a `summary()` of the model
 - What fit statistics can you see?
4. Is fit good, according to AIC, TLI? What are common criteria for good fit?
5. Can you tell from the AIC if fit is good?
6. Look up the formula for AIC in `?summary.MxModel`
 - Explain this to a lab-mate.
7. Look up the formula for AIC in `?summary.MxModel`

* Explain **this** to a lab-mate.

8. Look up the formula for RMSEA on the internet (Kenny, elsewhere)
 - What are the key parameters?
 - What makes RMSEA get smaller?
 - plug in some values and see.
9. get the `mxRefModels` for your model `m1`
 - What does `mxRefModels` return?
 - What are these 2 reference models?
 - There are more parameters (6) used in the saturated model, and fewer (3) in the independence model
 - Why?
10. Run the example given in `?mxRefModels`
 - run `summary(m1)` without providing the reference models
 - run `summary()`, providing the `refModels=` parameter
 - What changed? What fit statistics are available now, that were not before?
11. Draw an independence model for three variables.
12. Make it into saturated model for three variables.
13. open <http://davidakenny.net/cm/fit.htm>
 - Try and figure out why the new statistics became available when the independence and saturated models became available
14. Take turns explaining to a lab-mate what optimization does
15. Build a new model "m2".
 - Make it like the one in step 5, but leave out the path from `wt` → `mpg`
16. `umxCompare m1 and m2`
 - `umxCompare(m1, m2)`
 - Which is preferred by AIC?

Refs

1. David Kenny page
 - <http://davidakenny.net/cm/fit.htm>
2. umx home page
 - <http://tbates.github.io>
3. OpenMx home page
 - <http://openmx.ssri.psu.edu>