**Methods and Analysis Worksheet**

*Worksheet deadline:* Electronic copy uploaded to OWL March 10th by 5pm

Guidelines: The research proposal must be **related to theory of mind**, **experimental (or pseudo-experimental)**, **developmental,** and **feasible**.

1. “Related to theory of mind” means that you should either manipulate or measure some aspect of theory of mind (How does theory of mind influence Y? How does X influence theory of mind? Are X and theory of mind different/the same?). Other proposal topics indirectly related to theory of mind (e.g., social attention, symbolic representation, moral judgment) will be considered but should be brought to my attention as soon as possible.
2. “Experimental” here means at least one of the independent variables (IVs) is being manipulated. Age of course can’t be manipulated, but is acceptable as a pseudo-IV.
3. “Developmental” here means comparing two age groups, examining a single age group to test a developmental hypothesis, or comparing typical and atypical development.
4. “Feasible” here means a research idea that can be completed in a reasonable amount of time and with a reasonable amount of resources (money, equipment, participants, etc.). This is intentionally imprecise, and should be understood as mostly unrestrictive. As long as you can justify why you might need a significant amount of time or resources, the proposal is likely to be deemed feasible and therefore acceptable. Furthermore, the methods must be plausible. If you plan to use a method that requires overcoming limitations from previous studies, you must explain how you're going to overcome those limitations. If you have questions about whether your proposal is feasible, you should see me as soon as possible.
5. **The present study**

*This sub-section comes at the end of your Introduction section and is not included in the Method. This is included in the worksheet only to help you further clarify these points as a basis for constructing your Method and Data Analysis Plan (“Results”) sections.*

* 1. ***Research question***:
  2. ***Independent variable(s), conceptually***:
  3. ***Dependent variable, conceptually***:

**Aside**: How do you address a research question? You pose it to one or more theories. A theory is like a machine that takes research questions as input and generates hypothetical answers as outputs. These answers are also known as hypotheses. Your goal is to consider theories that set up competing hypotheses. If the results turn out one way, they should provide support for one hypothesis and against the other, and if they turn out another way, the conclusions should be the opposite.

* 1. ***Hypothesis A (state how your variables should relate according to theory A)***:
  2. ***Hypothesis B (state how your variables should relate according to theory B)***:
  3. ***Task (brief description only; provide details in section 4)***:
  4. ***Independent variable(s), operationally***:
  5. ***Dependent variable, operationally***:
  6. ***Specific predictions A (includes direction of effect and effects for different developmental groups if applicable)***:
  7. ***Specific predictions B (includes direction of effect and effects for different developmental groups if applicable)***:

1. **Study design**
   1. ***Experimental or quasi-experimental***?
   2. ***How many IVs and how many levels for each IV (write out in m x n x p … format)?***
   3. ***How many conditions, and how many trials per condition will there be?***
   4. ***Between-subjects, within-subjects, or mixed (if mixed, which variables are between- and which are within-subjects)***?
2. **Participants**
   1. ***How many? If you have different developmental groups, how many per group***?
   2. ***How and where will they be recruited***?
   3. ***Age range***:
   4. ***Gender breakdown***:
3. **Materials/Measures**
   1. ***Describe the materials (e.g., vignettes, pictures) you will use and how you plan to manipulate the stimuli or context to create different levels of the IVs. Include citations for any materials you will either use or adapt***.
   2. ***How will you measure the DV (if applicable, include name of scale, number of items, rating scale with anchors, example item)***?

**Aside**: In a true experimental design, you should be able to control most extraneous variables using one of three methods: ***random assignment, matching,*** or ***holding constant***. In a pseudo-experimental design, including studies comparing different age groups or studies comparing a control and a clinical group, in which participants cannot be randomly assigned to condition, it is difficult if not impossible to directly control certain key extraneous variables using these methods. Instead you must measure them and statistically control for them.

* 1. ***If you are including control variables (extraneous variables you will measure because you cannot control them with the methods mentioned above), how will you measure them (if using a survey/scale, including name of scale, number of items, rating scale with anchors, example item; if using a task, describe it in sufficient detail)***?

**Aside**: Even though extraneous variables can be controlled or measured, it is good practice to report certain (conventional, theoretically relevant, etc.) demographic variables to address whether the sample is representative of the target population. See Example 1a for how to report measurement and coding schemes for 4.d.

* 1. ***Demographic items (should at minimum include age, gender, ethnicity, SES)***:

(Do not describe the coding scheme for age, gender, ethnicity, or SES in the oral presentation or the final paper. The measure and coding scheme for any other demographic variables should be described).

1. **Procedure**
   1. ***Explain what participants will actually do in your study step by step (including informed consent, study participation, and debriefing). You should provide enough detail that another person could replicate your study.***
   2. ***Participant compensation***:
2. **Data analysis plan**

*In your paper, you will include a Data Analysis Plan section instead of Results since you will not actually be collecting data.*

* 1. ***What statistical test(s) will you use*?**
  2. ***Why is the test appropriate to use for your variables***?
  3. ***What will the results be if prediction A is supported? Describe*** ***significant differences or main effects and interactions (if you have multiple IVs) under each prediction. Include a figure or table to visualize the results***.
  4. ***What will the results be if prediction B is supported? Describe significant differences or main effects and interactions (if you have multiple IVs) under each prediction. Include a figure or table to visualize the results***.

1. **References**

*Include a list of references for all materials and measures that you will use from published sources. (These are separate from and do not count towards the 5 main intro/discussion references that are required for the proposal.)*