III. DATA AND TREATMENT OF DATA. Students are expected to collect, submit, analyze, and evaluate data using a method, procedure, and instrument(s) defined in the IRB with specific evidence that the method, procedure, and instrument(s) are derived from the theoretical foundation. What this means is that when students submit copies of the method, procedure, and instrument(s) used in collecting, analyzing, and evaluating data, they MUST connect information in those documents with quoted and/or paraphrased and CITED theoretical information from primary and secondary texts found in the annotated bibliography. This section of the portfolio must include the following:

A. **ALL RAW DATA** that was collected during the research study in its ORIGINAL FORM. This means that all data collected directly from children must be submitted exactly as collected, including handwritten notes, pictures, audio tapes, video tapes, etc.

B. A blank copy of the data collection instrument with all instructions used for its implementation.

C. A data analysis tool with a precise explanation as to how the data collected will be analyzed. Researchers must include a copy of any rubric, scale, list of words, or other evaluation tool used for analyzing and treating the data collected. Students are welcome to use quantitative or qualitative statistical procedures learned in other classes to treat and analyze data collected. In such cases, students will be expected to describe the statistical procedure used and explain its purpose. No matter the tool selected or constructed, its selection and/or construction should be done IN ADVANCE of data analysis and evaluation.

D. A clear explanation of the “theory-based system” used to analyze and evaluate the data for each problem addressed. The “system” must be logically and conceptually connected to theoretical concepts in the particular research study. The explanation MUST EXPLICITLY show the connection between the data collection instrument AND/OR the data analysis/evaluation tool and specific quoted and/or paraphrased (and CITED) theoretical information from primary and secondary texts. Students can show the connections using a variety of techniques, including well-positioned INSERTED comments or annotations, color-coded charts, footnotes, etc. The researcher should include in the explanation how “difficult” data was analyzed and evaluated, if the researcher had to work with any such data from the study.

E. ALL ANALYZED DATA emerging from implementing the “theory-based system” with the tools/instruments created/selected.

F. ANSWERS TO ALL RESEARCH QUESTIONS (RESULTS) based on the data analysis. Students must include each research question posed by the study with an answer and an explanation AND a GRAPHICAL REPRESENTATION of the data in support of the answer.