

Table Number: _____

Group Name: _____

Group Members: _____

BEETHOVEN AND INTELLIGENCE

Part I: Designing an observational study

1. With your group, design an observational study to compare the intelligence of infants who listen to Beethoven and those who don't. Consider an infant as being age birth to one year. Explain in significant detail how you would run this study. Refer to pages 14 – 19 in your text as needed.

STATUS QUO: *There is no difference in intelligence of infants who listen to Beethoven and those that do not.*

WHAT WE THINK IS TRUE: *There is a difference in intelligence between infants who listen to Beethoven and those who do not.*

2. Assuming that infants who listen to Beethoven do have higher intelligence scores, would you be able to conclude that listening to Beethoven affects intelligence? Explain
3. Is there a confounding variable that might affect the outcome of the study?

PartII: Designing a controlled experiment

4. With your group, design a controlled experiment to compare the intelligence of infants who listen to Beethoven and those who don't. Consider an infant as being age birth to one year. Explain in significant detail how you would run this study. Refer to the gold standard for experiments on p. 19 in your text.
5. Each group is to critique the study of another group. Share your file with another group at your table. You might want to just shift one group over at the table. Please type your critique in **red** or **blue** and list your table and group number by your critique. Comment on each of the elements of a good research design. Which were met in the study? Which weren't? Explain. Return the study to its original writers.
6. Comment on the critique from the other group. Do you agree or disagree with their comments? Would your study be a better one if you followed their suggestions? Explain.