Clinical Trial:

Purpose of information gathering and synthesis:

Observations: What are some healthy and unhealthy habits that you and your peers may exhibit in school?

Hypothesis: Develop a hypothesis based on the research question: (For example: What factors do you believe will be most related to performance on physical fitness tests?)

**Procedure:**

1. Each group should select a role for each team member: Key Investigator

Coordinate team roles.

Coordinate with the project teacher and administration about any concerns and obtain clearance for all aspects of the study.

Statistician

 Synthesize all data from the Key Interviewer in tables.

 Conduct statistical analysis on the data to identify trends.

 Make a series of graphs that illustrate the connections between the data and

the outcomes.

 Check progress and results with math teachers. Quality Control Officer

 Bring any safety or procedural concerns to the attention of the Key

Investigator.

 Ensure the validity of the data collected. For example:

• Match the volunteers’ cafeteria consumption with the day’s menu.

• Check with teachers on volunteers’ performance if brought into question on dates of assessments for comparisons.

Interviewer

 Compile the list of questions selected for the research study and design the survey form. Possible items for inclusion are health-related habits such as

• hours of sleep per night,

• healthy or unhealthy food choices,

• amount of daily exercise.

 Poll volunteers.

 Conduct interviews and gather accurate information.

 Note: A minimum of 25 interviews should be conducted

2. Recruit 100 (adjust as appropriate for school size) volunteer students.

a. Do not write down any names or identifying information. (Small incentives may be offered to help recruit volunteers if necessary).

b. If participants cannot provide exact figures, ask them to provide estimates.

c. Interviews should be completed after HPE physical fitness tests have been performed.

d. The Interviewer should take no longer than two weeks to compile interviews.

3. The Statistician will compile all data into a spreadsheet and make at least 2 graphic representations of the data.

For example:

 Bar graphs showing total number of students following healthy habits (at least 8 hours/night of sleep, healthy food choices, 30 minutes/day exercise) and unhealthy habits.

 Bar graphs showing number of students, broken down by gender, who follow healthy habits (at least 8 hours/night of sleep, healthy food choices,

30 minutes/day exercise) and unhealthy habits.

 Scatterplots of each lifestyle choice matched with physical fitness test results (Example: Hours of sleep matched with physical fitness test results).

4. Determine statistical significance with each comparison to determine which lifestyle choice had the largest effect on performance.

5. Discuss results within the team and with a math teacher.

6. The Quality Control Officer will confirm with the various teachers the dates of tests and physical fitness tests. He or she will also determine if performance numbers match with class overall performance. He or she will also verify that the food choices recorded were available in the cafeteria on that day, if applicable.

7. The Key Investigator will confirm the results with the teacher and administration. What was the biggest surprise encountered when interviewing volunteers?

What were the biggest challenges to analyzing the data obtained?

Were there any data that needed to be discarded and why?

What factors had the greatest effect on performance?

Based on your results, what factors had the least effect on performance?

**Conclusions:**

Discuss recommendations that you would like to present to the administration based on your findings.