INTL 2000: Research Exercise Format

1)Topic

(For example, Iranian Nuclear Program)

2)Principle Question

(For example, Does the development of a weapons grade nuclear program in Iran lead to other neighboring states to do the same?)

3)Hypothesis and Null Hypothesis

(For example, There is a positive correlation between the development of a weapons grade nuclear program in Iran and neighboring states doing the same.)

(You could also say, “if Iran develops a nuclear weapons grade program, then its neighboring states will do the same”

Null Hypothesis: “there is no correlation between the development of a weapons grade nuclear program in Iran and neighboring states doing the same.”

4)Identification of Independent Variable

“development of nuclear weapons grade program”

5)Identification of Dependent Variable

“neighboring states development of nuclear weapons grade programs”

6)Measure of Independent Variable (per discussion of measures and research as to exactly what “development of nuclear weapons grade program” means in reality.

For example, I would measure the “development of nuclear weapons grade program by using the IAEA (International Atomic Energy Agency) operational definition which includes the presence of “special fissionable material and technologies” such as enriched plutonium and precise centrifuges as well as nuclear device triggering devices. Such measures, in the end, are determined by scientist, engineers, and other experts examining the data of such a program.

7)Measure of Dependent Variable (same as in #6). How would you measure “neighboring states developing nuclear weapons?)

For example, I would measure neighboring states developing nuclear weapons” by using the same definition as above with the addition of all neighboring states sharing a border with Iran or within intermediate missile range distance of an Iranian launch site. These states include Pakistan, Turkey, Russia, Afghanistan, Israel, Saudi Arabia, Syria, Armenia, Iraq, and Turkmenistan.

8)Testing Design and Null Hypothesis

Summary: Gather data of all states to develop Nuclear weapons grade programs since end of WWII and analyze pattern of response of neighboring states. A test of the null hypothesis involves the data collection and analysis of all neighboring states that **did** **not** develop such a program in response to a neighboring states development of such a program. (You can go on much further here is step 8 in some detail).

9)Expected Results (if you did do the test)

If I did do this test, I would expect there is not a strong correlation between these two variable. (Analysis and discussion follows)

10) Further Questions (at least 3)

1. Does regime type of states make a difference in the correlation of these variables?

2. Does the history of warfare/belligerence between neighboring states make a difference with respect to these variables?

3. Does ethnicity or religion make a difference with respect to the relationship between these variables?