

## **INTERNAL ASSESSMENT ESS**

### **Research Question:**

Do varying genders (male or female) of human beings, in the Czech Republic, have an affect on their lifespan?

### **Hypothesis:**

Due to the varying roles, beings of different genders have played throughout evolution, my prediction is set to believe that a female will have a longer lifespan than a male.

### **Null Hypothesis:**

Gender does not share a relationship with the specific lifespan of a living being, therefore it does not affect it.

### **Variables:**

*Independent: Gender (Male/Female) (certainty)*

-This variable is changed as each observed person changes, and when done so will affect the lifespan. This variable is a factor of observation as explained in the Research Question. Refer to step 5a/5b.

*Dependent: Lifespan (Years  $\pm$  0.5) (uncertainty)*

-This variable is dependent on the chosen gender. A change in gender will affect this variable, and since we are differentiating between the various lifespan according to their genders, it will ultimately affect the data. Refer to step 5a/5b.

*Controlled: Location (Cemetery)*

-This variable must stay the same throughout the experiment. A change in the location would introduce alternate factors that could affect the dependent variable, like various different epidemics, wars, and social factors, that might not have been present in the current location. Our samples are also extracted from the location, and therefore a change in the controlled variable will cause alternate and different samples.

### **Background:**

The Czech Republic is a fairly stable country when it comes to factors that influence lifespan. Amongst these factors lies STD rates, pollution levels, safety, access to food and clean water, and obesity (the most significant of the list in values; 15%). At this juncture, gender predominantly classifies as the most significant factor to examine, and the fact that the country is fairly "stable" (as defined previously) can further increase the impact caused by the occupations of various genders who take different roles in society, on their lifespan. The Czech Republic has a 0.95 male per female gender ratio. The female gender also carries a higher life expectancy when juxtaposed to that of a male, at 80.83 years, whilst the male sex has 74.11 years, with a lifespan difference of around 6.7 years.

### **Materials:**

- Paper
- Writing Utensil
- Clipboard

### **Method:**

1. Collect Materials.

2. Go to the cemetery.
3. Visit tombstones for roughly around 15 minutes, and collect as much data as possible.
4. The data collected should be:
  - a. Gender (Male/Female)
  - b. Birth date (Years)
  - c. Death date (Years)
5. Analyze and Interpret data:
  - a. Analyze the total male lifespan ( Years +- 0.5) of all recorded units, and collect the average.
  - b. Analyze the total female lifespan ( Years +- 0.5) of all recorded units, and collect the average.
  - c. Compare the averages.
  - d. The higher average will identify and answer the research question: *Do varying genders (male or female) of human beings, in the Czech Republic, have an affect on their lifespan?*

**Sources cited:**

Factbook, CIA World. "Czech Republic." *CIA World Factbook*. US GOV, 20 Mar. 2012.

Web. 26 Mar. 2012. <<https://www.cia.gov/library/publications/the-world-factbook/geos/cz.html>>.