**Assignment 3: Measuring workload and identifying hazards**

**Format**: Minimum of one double-spaced page (12 point font)

Assess the mental workload of 4 family members or friend using the time and accuracy of the primary task and the NASA TLX. Each of your four participants should complete a different task from the list below.

Compare and contrast the mental workload of the four tasks based on the primary task measures (time and accuracy) and the subjective measure. What characteristics (temporal, mental, effort etc…) of each task were most influential for workload. Which task imposed the highest workload? The lowest workload? Why (think about memory, human information processing, decision-making, etc…)

**Primary task options**

Record the time for all of the tasks and the accuracy of all of the tasks.

Stroop test as the task**(**[http://cognitivefun.net/test/2/ (Links to an external site.)Links to an external site.](http://cognitivefun.net/test/2/))

* You will need flash to run the test
* Directions are a little difficult see so I’ve pasted them below:

**“Type the first letter of the name of the COLOR that is shown”**

* Complete at least 30 trials
* If you continue anonymously, the data for the participant will be at the top

**Elephant memory** ([http://braingames1.aarp.org/elephant\_memory.html (Links to an external site.)Links to an external site.](http://braingames1.aarp.org/elephant_memory.html))

* You can put in the actual characteristics of the individual taking the task but it does not matter
* Choose the highest level of difficulty on both the basic and advanced setting
* Complete 3 trials

**Visual search task** ([http://gocognitive.net/sites/default/files/search.v0.92\_0\_0.swf (Links to an external site.)Links to an external site.](http://gocognitive.net/sites/default/files/search.v0.92_0_0.swf))

* Choose colored shapes
* Select 64 trials (4 minutes)

**Flight simulation task (download *Avion Flight Simulator* from the Play Store or App store)**

* Have student complete *first takeoff* as practice task
* Then complete the first three missions (flight basics, flying around, airport taxying)
* If the participants gives up, note the number of loops cleared