**Summary of Programming Tool**

**Proposed Goal 1: Learn basics of Python and Pygame.**

**Goal Met?: Yes**

* 1. Completed introductory python modules on CodeAcademy. Modules completed were Introduction to Python syntax, Strings and Console Output, Conditionals and Control Flow, Functions, Lists and Dictionaries, Lists and Functions, and Loops.
  2. Downloaded Pygame and explored libraries in pygame.
  3. Designed final tool project using Psychopy. It has a built in library that is useful for psychology experiments. In addition to using Python coding, Psychopy incorporates some components from Pygame libraries.

**Proposed Goal 2: Program the initial survey.**

**Goal Met?: Partially**

* 1. The code turned in for this project includes a section that is a prototype for the design and coding of the survey interface.
  2. Currently the program code records responses to a single survey-type question.
  3. The initial idea to create a personalized message screen for individuals based on their survey score is not reflected in the current version of the project.
  4. Currently the program creates an output in .csv format and .xlsx formats; these data file formats can be easily imported into SPSS.

**Proposed Goal 3: Design and Program the Game Play**

**Goal Met?: Yes, but with changes to initial design**

* 1. Designed an instruction interface and start screen that participants could move through at their own pace with a key press.
  2. Coded components of game play
     1. Proposed components:
        1. Blank screen for items to appear on.
        2. Feedback/Gauge system to keep track of points that can be updated based on current task performance.
        3. Go and no-go items coded to appear on screen and leave the screen when clicked on by players or a certain amount of time has passed.
        4. Progression through levels, with only one level coded. This would include a start screen, a fail screen, and a success/move forward screen.
     2. Completed components:
        1. Black screen for items to appear on. Currently the items are randomly assigned to one position on the screen and moves to one other position with a speed based on a frame by frame rate. After this move, the item remains on the screen until 5.0 sec have passed or a button is pressed. Items could instead be coded to randomly appear in only one position.
        2. Immediate feedback based on accuracy of response is presented at the center of the screen after each response (+1 or -1). A scoring screen is presented after all the responses have been made that breaks down the points participants earned and their accuracy by item type.
        3. Go and no-go items were created by collecting a range of food pictures and modifying the pictures to have approximately equivalent size with clear backgrounds and a common image file type (.png). These items were coded with additional information in the excel set-up file, so that the researcher has more information about the items available for analysis. Specific items were coded to appear on screen and leave the screen when players pushed a button or a certain amount of time has passed.
        4. As proposed, only one level was included in the currentprogram. Instead of coding the experiment to end when a low score is reached (as in the initial design), the current program moves participants through all the trials, then reports an overall correct score to them. This current coding system emphasizes reaching a high score, and could easily be re-coded to include multiple levels.