Psychology 100 Lab: The Stroop Effect

The Stroop Effect was discovered in 1935 by a researcher named J. R. Stroop. It is a fascinating phenomenon in which the way we automatically process the meaning of words interferes with our ability to identify colors. In this lab, you will experience the Stroop Effect by performing color identification tasks under two different experimental conditions: Identifying the color of the ink when the word matches the color, and identifying the color of the ink when the word does *not* match the color. You will perform five trials in each of the conditions described above. The average of your scores across the five trials in each condition will be the data you present in the lab.

Instructions for Collecting Data:

1) Go to the following web address: http://www.math.unt.edu/~tam/SelfTests/StroopEffects.html
2) Start with the "easy practice test." Name the COLOR OF THE PRINT the words appear in OUT LOUD, reading left to right as if you were reading actual text. Click on the "Start" button when you begin reading, and click on the "Finish" button when you say the last word. Record the time that it took for you to read through the entire list.
3) Next, go to the "real hard test" and repeat the procedure above. Be sure to NAME THE COLOR OF THE PRINT OUT LOUD as you go through the list, recording the time it takes to go through the list.
4) Repeat the procedure until you have taken both tests five times. Compute the mean of your scores for the two tests across the five trials.
5) When you have finished, you may log off and you are now ready to write your lab report.

Instructions for Writing the Lab Report:

1) Present your data in a bar graph. Be sure to clearly label the axes of your graph (Put time on the vertical axis and the average score for each of your two conditions on the horizontal axis.). Also, report your average times in a sentence. You may draw the graph by hand or use a graphing program like Excel or SPSS.
2) Summarize the pattern of your results in a paragraph. In other words, what does your graph tell us?
3) Finish your lab report by answering each of the following questions:
   - *What pattern of results would you expect to find if you exhibited the Stroop Effect? Is this what actually happened?
   - *If you did *not* show the typical Stroop pattern, do you have any hypotheses about why you didn't?
   - *Did you find one condition to be more subjectively difficult than the other? Please elaborate.
   - *Did you notice that your times got faster with practice? In other words, did you go faster on the early trials than on the early ones?
   - Write a few sentences explaining why the Stroop Effect occurs.

Stroop Effect Lab Data

CONDITION	Time #1	Time #2	Time #3	Time #4	Time #5
Easy Test: **(Colors match words)**					
Hard Test: **(Colors do not match words)**					

Reference:

MacLeod, C. M. (1991). Half a century of research on the Stroop Effect: An integrative review. *Psychological Bulletin, 109,* 163-203.