

Psyc 100 Lab: Effectiveness of Cued versus Free Recall in Memory Retrieval

This lab exercise probably belongs in the module on cognitive psychology, but I am assigning it here to give you the experience of doing a brief experiment and reporting the results in a lab report.

One of the pioneers of memory research is a psychologist named Endel Tulving. Tulving developed techniques for studying different types of memory and for studying the effectiveness of different forms of memory retrieval. In this lab, you will compare the effectiveness of two different forms of memory retrieval: Free Recall and Cued Recall.

In free recall, you are simply asked to retrieve items from your memory without any cues. In cued recall, you are given a hint in the form of something that has been associated with the thing you are trying to recall. Let's see how these two strategies work for you.

Instructions for Conducting the Experiment

1. Go to the following link: <https://opl.apa.org>
2. When the page comes up, you will see a long orange-ish button that says "Demonstrations" in the upper right part of the page. Click on this button.
3. Scroll down the list of demonstrations until you see "Tulving Research Replication." Click on this link.
4. Read the instructions.
5. You will try to memorize a list of words, followed by two different memory retrieval tasks.
6. When you are finished with the memory tasks, your results will be presented in a Table. Copy down these numbers so you have them for writing your lab report.

Instructions for Writing the Lab Report

You will be typing a lab report and sending it by email to your assigned TA (see the web page for this course to figure out who that is). Please submit the report as either a Microsoft Word Document or as a PDF. I will notify you of the due date for this lab report by email – please be sure to check your email!

Use the following headings to organize your report:

Introduction

Under this heading, present just a bit of information about cued versus free recall and state that you are attempting to replicate the results of Tulving's research. You may look ahead in Chapter 7 of the textbook for background information on this; some information is also presented on the website at the end of the experiment. **USE YOUR OWN WORDS!** This is a writing exercise, so do not simply copy down information from another source. The introduction should only be a few sentences long.

Procedure

In a few sentences describe what you did to collect data. A person who does not already know what you did should be able to accurately picture what happened by reading your description of the experimental procedure.

Results

Present your data in the form of a bar graph. The vertical Y axis should reflect the number of words recalled, and the two conditions (free vs. cued recall) should be on the horizontal X axis at the base of the bars that you draw on your graph. You may use draw your graph using Excel or any other electronic tool, or you can draw a graph by hand, scan it or take a picture of it, and paste the picture into a Microsoft Word document.

Do not *only* present a graph in your results section. You need to also clearly state in words what you found. How many words did you recall in each condition? Did you do better in one condition than in the other? Does it look as if the difference is large enough to be meaningful? In an actual experiment, we would have to perform a chi-square test to see if the difference between your conditions is statistically significant.

You are not required to perform any statistical tests in this lab, but if you know how to perform a chi-square test, by all means go ahead and do so and I will be properly impressed!

Discussion

In a few sentences, provide a take-home message from your experiment. Did you find what you expected to find? If you are like most people, you should have done better in the “cued recall” condition. If you did *not* find what you expected, can you think of any explanations for why this happened? You may also use the discussion section to share any personal reactions or thoughts about the experiment

We will not be using any of the other demonstrations from the “Online Psychology Laboratory” website in this course, but you feel free to explore and play with these. Most of them are fun & interesting, and you will also learn something from each one of them.