

Depth of Processing Experiment

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“We are going to do a memory experiment now. You will be the subjects. Your task will be to listen to lists of words and write them down. Each list will have five words. There will be twelve lists in the experiment. I have provided you a sheet of paper to write each list down when you are asked to recall it.”

“The lists will be presented on the overhead and will be read out loud. You will hear each list in turn read quite slowly. After each list, you will have to wait 15 seconds before you are allowed to write it down. You have to remember the 5 words for those 15 seconds.” Remembering an unrelated list of words is a difficult task, so you will need to carefully follow the procedures I will outline to help you remember the words.

“During the 15 seconds, you will have one of two tasks to do. One task will be to repeat the words over and over, out loud, as fast as possible. The other task will be to say the word ‘hello’ out loud, over and over, as fast as possible like this: ‘hello, hello, hello,’. At the end of 15 seconds, you will be told “stop, write it down” and you should write down the list.”

“Since we are all in the same room together, when you say the words aloud, you will have to do it quietly, so you do not disturb your neighbors and make them forget the list. You can do this by muttering quietly to yourself, like this, ‘hello, hello, hello.....(sotto voce)’. It is important, though, that you do not just say the words in your head. You must actually move your lips and make some sound, even if only you can hear it. To cut down on distraction by your neighbors, as you repeat the words, cover your ears. To let you get used to it, let’s practice it now. First, try saying ‘hello’ for 15

seconds. Ready, begin now.” (You should watch to see that everyone’s lips are moving, that one person is not being much louder than the rest, that everyone does it at a rapid pace, that the whole groups do not do it in unison. Wait 15 seconds). “Stop.”

“Now try repeating these five words for 15 seconds. At the end of the time, write them down. Ready, KIT, TRIP, ALE, WATCH, PLATE.” (Remind subjects to repeat the list if necessary. After 15 seconds). “Stop! Write it down. You will have 15 seconds to write the list down during the experiment.”

“Now we’ll practice doing the hello task while you have a list of words to remember. You will have to remember the list while you are saying ‘hello’. There are various strategies you can use to manage this. You can form a visual image of the words together or make up a sentence that uses all the words together.

“You should use whatever strategy seems to suit you best. My only concern is that you be able to write down the words at the end of the 15 seconds. We will try a list now. Ready, CORN, WOOD, TEAM, COT, BAR.” (After 15 seconds). “Stop. Write them down.” “We will alternate tasks. For the first task repeat, for the second, say ‘hello’, and so on. As each list is read, the word ‘hello’ or ‘repeat’ will appear on the screen so you can remember what to do.”

“The 5 words will appear on the screen while each list is being read. This will prevent you from missing any if someone makes a noise just as a word is being read. Do you have any questions.”

“There will be 12 lists. Start repeating the words, or saying 'hello' as soon as the list ends.”

After the practice lists and the 12 lists, tell the students to hand in the paper on which they have been writing and to relax for a minute. Engage in conversation for 30 to 60 seconds.

“Now we will continue. Take a fresh sheet of paper and write down all other words you can remember from all the lists. You can write the words down in any order.”

When they have finished writing (about 3 minutes). “Please hand in that sheet. Now I want you to do a recognition test. Some of the words on this sheet were on the lists you heard. Circle any word that you believe you heard. Do not mark the ones you did not hear.”

As the students finish the recognition test, hand out the (1) word list, and (2) key for the recognition test. Count the total number correct, separately for hello lists and repeat lists for immediate recall, delayed recall, recognition. As each count is completed, it should be written on the data sheet. T-tests, within-subjects, on each measure, complete the job.

Note: Only score lists 3 through 12. You heard 14 lists. First 2 were training. Second two (1 and 2) were practice. On the free recall task, mark each item as an “R” (for repeat) or an “H” (for ‘hello’) or draw a line through it. Draw lines through any list 1 and 2 items. On the immediate recall task, words do NOT have to be in the proper order.