

**OH NO,
I FORGOT!
THE EFFECTS OF
SERIAL RECALL AND
FREE RECALL ON
MEMORY**

AKLATANG ENRILO AGUINALDO ARCHIVES

**OH NO, I FORGOT! : THE EFFECTS OF
SERIAL RECALL AND FREE RECALL
ON SHORT-TERM MEMORY**

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A study regarding the effects of serial recall and free recall on short-term memory was conducted. Sixteen De La Salle University students were tested. They were divided into two groups, the first group being the experimental group which consisted of 7 members and the second group being the control group which consisted of 9 members. Both groups were told to listen to a taped list of words. To measure the subjects' memory, the experimental group was instructed to list down the words in their proper order and the control group was told that they could list down the words in any particular order. The t-test for two independent groups with unequal ends was used to arrive at the results. Since the observed value of t (-4.25) is less than the tabular value of t ($+2.145$) then we reject the null hypothesis. That is, serial recall and free recall affect short-term memory.

DISCUSSION

From the results earlier mentioned, our experiment points to a rejection of the null hypothesis. There was a significant difference between the mean scores of both groups, the control group or the free recall group receiving a higher mean score ($\bar{X}_1 = 10.11$) than that of the experimental group or the serial recall group ($\bar{X}_2 = 5.43$). Thus, serial recall and free recall affect short-term memory. This conclusion supports the findings of Battig and Lawrence (1967) stating that serial recall procedure should lead to improved learning of both lists and also to more effective transfer of this learning when systematic modifications preserving these complex associative units are made in the list or procedure. This idea was supported by Waugh (1967) who stated that improperly placed words were actually remembered in the correct order relative to each other.

Even as our conclusion supports these findings, it goes without saying that this is in contradiction with some findings in past studies conducted. One study done found no ETL or learning-to-learn in immediate free recall of word lists (Dallett, 1963). Also, an event is remembered only when a retrieval cue makes contact with the stored representation of the event (Watkins, 1974). In other words, what's important is that retrieval cues connect with a stored thought. The type of recall done is not essential. According to Gardiner (1974), maintaining information at a "fixed" level of processing does not necessarily lead to any improvement in the memory trace. Furthermore, Waugh

(1961) stated that with free recall, there is evidence that the learning curve is not linear but negatively accelerated.

The discrepancy in findings could be due to some limitations encountered by this study. The manner by which the experiment was conducted was susceptible to errors. The study was confined only within the boundaries of the De La Salle University Campus. The limitation of using a very select group of only sixteen students in their late teens and early twenties is that we cannot generalize the results due to the fact that there is only a small number of subjects conveniently sampled. Also, the lack of clarity of the taped voice was a contributing factor to the studies limitations. Some words were mispronounced and the quality of the taping was not very good thus affecting the subjects deciphering of certain words. Finally, the familiarity of the subjects with the English language could be a factor to consider which may have affected the results. Perhaps, had Tagalog been used, the results would have been different.

Therefore, the researchers encourage the replication of the study because of the mentioned errors and limitations, this time being more cautious of them. The number of respondents is suggested to be increased to $N = 100$ at least, for a norm to be established. Also, a wider range of people should be used in order to be able to generalize the studies results. Furthermore, the quality of the taped material must be improved and the voice heard must speak clearly. If this cannot be done then it is recommended that those answers which sound like the ones mentioned in the taped material be considered as correct. In addition, a different language should be used to serve as a

comparison and to see if familiarity with the language does indeed affect memory. Lastly, it is recommended that the study be extended to include long-term memory as well through the addition of repetition and rehearsal in order to really see whether serial and free recall affect memory as a whole.

In conclusion, this study rejects the null hypothesis and accepts the alternate hypothesis stating that serial recall and free recall affect short-term memory. But despite these findings, there are several related literatures that prove otherwise. But considering the limitations stated earlier, the results of this study may not be as valid as those done in the past. However, with the implementation of the recommendations earlier suggested, the researchers trust that this study would improve and possibly even change in findings. With that, the researchers would like to end this study by saying that although this report may not be as valid as those done in the past, it has contributed additional information which can be used as basis for further studies to be conducted in the future.