MEMORY RETRIEVAL FACILITATION IN SUBJECTS OF DIFFERENT AGE GROUPS IN DIFFERENT TIME GAP

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Abstract:
The conceptual knowledge acquired on Memory Retrieval is bought about in the project. As a part of post-graduation, I have got a chance to prepare a report on “Memory Retrieval facilitation in subjects of different age group”. The present project gives an idea to my understanding the act of retrieving memory by picturization. The method is brought about in a way that anyone could go through it. Memory retrieval is the process of recalling any of the past events. Brain thus is responsible for recollecting data of past experiences. The project will provide some information regarding the retrieval power with effect of different ages and their workloads according to their age. Total of 90 participants, divided into two groups each group with 45 participants were shown the picture provided for the task. In forensics, the technique is relatable for eyewitness memory which is evaluated in the course of investigations and criminal trials. Eyewitness recall often plays an important role in the investigation of crimes. When a crime occurs, police officers responding to the crime interview the eyewitnesses regarding their memories associated with the crime, including descriptions of the perpetrator(s) and the crime itself. The interviewee may be interviewed numerous times throughout the investigation. Some of the details recalled by the eyewitness may become important later in the investigation or even at trial. Fisher and Geiselman (1992) developed one of the first standardized interviews in response to problems with typical police interviews. The protocol, called the Cognitive Interview, was initially established for adults. It relies on principles of cognitive psychology, but it also integrates social interactions and communication theory into its framework. It highlights the need to help the interviewee take control in the interview situation (Geiselman & Fisher, 1997).

Keyword: brain, retrieval, cognitive psychologist

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Introduction

Brain is responsible for acquiring, processing, storing ample quantities of information. Memory helps in making a person illuminate, thereby playing a major role in everyday life.
Cognitive psychologist in (2005) described memory as “the process of retaining information over time.” Another psychologist in (1999) portrayed memory as the means by which we draw on the past experiences in order to use this information in the present. Memory is involved in refining endless information, in the form of **Pictures** (images), **Audio** (sounds), or **Semantic** (meaning). Memory involves Encoding, Storing, Retaining and recalling the information and past experiences afterwards.

**Stages of Memory**-

1. **Encoding**

2. **Storage**

3. **Retrieval**

The action of encoding is commenced when we are born and occurs frequently. A memory starts in Short Term storage. Imperative memories consistently move from Short Term Memory (STM) to Long Term Memory (LTM), and may occur in a few steps. Recurrence is the way of executing information to Long Term Memory (LTM).

Memory is the clout and result of Perception, Attention and Learning. Attention is the essential pattern of memorizing things or events followed by practice, resulting in a cumulative effect on memory. Human memory is a complex, brain-wide process that is essential to whom we are.

Memory retrieval includes recalling and recognizing any information or event where the process of remembering the information is stored in Long Term Memory. Some theorists insinuated that there are 3 stores of memory – Sensory, Short Term Memory and Long-Term Memory. Although there are many things that affect the retrieval, but retrieval can be done in various ways:

a) **Free recall** – Such type of recall when a person must recall items but can recall in any order.

b) **Cued recall** – Such when a person is given a list to remember and is then given cues during the testing phase to aid in the retrieval of memories

c) **Serial recall** – Such when recalling of events is done in order the in which they occurred.
Eyewitness recall often plays an important role in the investigation of crimes. When a crime occurs, police officers responding to the crime interview the eyewitnesses regarding their memories associated with the crime, including descriptions of the perpetrator(s) and the crime itself. The interviewee may be interviewed numerous times throughout the investigation. Some of the details recalled by the eyewitness, such as a description of a weapon or description of clothing worn by the perpetrator, may become important later in the investigation or even at trial. Even in the absence of direct questioning, witnesses often recall what they have seen on their own, sometimes to prepare themselves for testimony at trial and other times simply because the event was frightening, disturbing, or otherwise vivid. The effects of such repeated recall on eyewitness accuracy and confidence are complex.

**Material and Methodology**

Materials used for the task done

i) A subject of particular age

ii) A stopwatch

iii) A picture

Details for subject of particular age: is to determine the attentiveness of person according to age due to their activities, workloads and other pressures they undergo.

A stopwatch, to note the time of exposure of the picture to the subject. The time is to be noted and should be fair for all the participants. The experiment was carried out in a way that the participants
were subjected to an image of It was made sure that the participant did not take any caffeine before undergoing the experiment. The subjects were not pressurized during the event. Likewise, the experiment was carried out and the times were noted. The numbers of objects remembered or guessed and number of correct items was noted respectively.

**Methodology**

The study has been conducted to assess the memory retrieval power of young individuals. Therefore, 90 subjects were chosen for the experiment. The subjects were divided in two groups, 45 in a group. The division of the group was based on age. So, group 1 has 45 subjects aged 14-24. And group 2 has 45 subjects aged 25-35. The subject’s visual memories were tested. Visual images were shown to the subjects on a chart measuring 16.5*11.7 inches. Two charts were made containing different items and objects. The first chart contained a busy street or environment containing various scenarios including people, vehicle, birds, animals and blue skies and much more objects. The second chart showed difference from chart 1 in such a way that the second chart consisted of several items differing in positions and designs and the items itself from that of first chart’s scenario. The second image has several items from where the participant has to make a recall or recollect items; they think they have seen in the first chart. The observations were carried under normal and random conditions and no specific laboratory environment was provided. Subjects were called in different areas such as market, café, park, university campus and were asked to relax for about 10 minutes. It was made sure that they were not in hurry. They all were narrated about the study and their observation was carried out. The first chart was shown to the subject for ten seconds and after a gap of fifteen minutes, the second chart was shown. The items in chart 2 were different in terms of addition of extra items and in the similar pictures by differing in positions and structures. The differences were made so as to make the subjects attentive enough as it lead to a confusing matter. Chart 1 is therefore made for assessment and chart 2 is made for observation. The time gaps given were 15 minutes, 5th day, 10th day and 15th day. Chart 1 was shown only once on the very first day of the experiment for 10 seconds and it wasn’t shown again on the other days of observation. The numbers of items guessed and the number of correct items guessed by the subjects were noted and compared between group 1 having participants aged from 14-24 and group 2.

**Result and Discussion**

After showing the main chart to the subjects, in the time span of 05 days minimum item guessed was 1 which was very low out of 73 and the highest being 10. The maximum items that came out to be correct was 06 which was guessed by the subject of 21 years and the least correct items was 0 which was guessed by the subject of age 15 and mostly 1 was guessed by several other subjects of different age which was very low out of total 73 items.
In the time span of 10 days, it could be seen that the minimum item guessed was 1 which was guessed by subjects of age 15 and 23 and maximum guess was 9 which was guessed by 15 years subject. Maximum correct items came out to be 08 and the least 0 which were postulated by age 15 years and several other age respectively. In the subjects of 14-24, it could be seen in the time span of 15 days that the maximum items guessed was 06 which were guessed by subjects of age 15, 23 and 24 and the correct item guessed was 04 by age 15 and 23. On the other hand, the minimum guessed items was 01 and minimum correct item was 0 which were guessed by several other age. Collectively, it was noticed that the subjects of age 14 made guess of item that somewhat reduced with time and only 1 correct item remained consistent up to 15 days out of 73 items shown to them. It was observed in the subject of age 15 that they guessed the maximum number of items up to 16 out of 73 in the immediate time interval and with the increase in time period there was decrease in the number of guessing of the item up to 1 and fluctuation could be found in the item correct guessed item. The subject of aged 21 guessed the maximum number of item up to 13 in immediate time and decreased with time intervals. The correct items guessed were up to 1. It is inferred in the subject of age 23 that they guessed the maximum number of item in short time interval reaching up to 15 and the least 2 out of 73 total items and kept on decreasing with time. The difference with time period where the subjects reduced in making attempts to guess items might be due to the effect of less age group in which focusing power is less and distractions are more.

It is seen from the table 5-8 that subjects from 25-35 have guessed items shown to them in the range from 03-09 out of 73 which was very low. Least item guessed was 1 by the subject aged 25 and 29 and few couldn’t make any guesses resulting in 0 item guessed. Maximum correct item guessed was 04 which were postulated by subject aged 25 years and most of the subjects resulted in 0 correct items. This was carried out in the time period of 15 minutes.

In the time period of 05 days after the main chart were shown to the subjects, it was seen that the attempt to make guess was 09 and 1 or 0 made by 25 years, 27 years and several other subjects respectively of which the least items that were correct was 01 which were common in the group and 0 where the subjects failed to make any correct guess. The maximum items that came out to be correct were 03 which are again very low out of the total 73 items.

After a complete time gap of 10 days, 01 was the least number of items that the subjects could guess and few denied making any guess and the highest number of correct items guessed was 03 made by subject aged 27 and the rest in the average of 01-02. After the time gap of 15 days, the minimum item that the subjects could guess was 01 and most probably 0 and the maximum items that were correct was 02 and the least being which was guessed by several subjects.

Collectively, it was noticed that the subjects of age 25 made guess of item that somewhat fluctuated in the first three time periods and only 1 correct item remained consistent up to 15 days out of 73 items.
shown to them. It was observed in the subject of age 27 that the items that they guessed did not differ much with time but the correct items guessed kept reducing with time. Subjects of age 29 guessed items that did not differ much with different time interval and the items that were correctly guessed did lied in the average number 02-03.

It is inferred in the subjects of age 31 that the guesses made were in the range up to 06 with 0 guess where the subjects denied to even making any guess and the correct item guessed were in the range of 0-1, where most of the items came out to be incorrect. In subjects of 32 years, it was observed that some of the subjects couldn’t even guess an item resulting in 0 guess and remaining showed the fluctuation in the first two-time interval and decrease in number of guessed items with rest time intervals. Subjects of age 33 years guessed 0 items and correct item guessed was in the average of 0-3 where most guessed 0 numbers of items. It was noticed that in subjects of age 35, the subjects guessed up to 6 items in immediate time and it fell up to 1 and 0 with the increase in time period. The items guessed kept reducing with different time interval and resulted in 0-2 items that were guessed correct and it was also observed the subjects guessed 0 numbers of items later with the increase in time gap.

The major difference and declination in the memory retaining process in the age group of 25-35 might be due to the distractions, challenges from everyday life, speeded everyday activities and overloaded works.

**CONCLUSION**

The above study has been made to assess the retained memory in the subject of different age groups at varied time interval. The study can be concluded with the quotient of differences observed during the assessment. The subject of study aged between 14-24 and 25-35, had a varied differences factor, as the first age group 14-24 seem to retain much more memory than the later age group 25-35. However, the result factor of both the age groups seems to show its declination or degradation, making it obvious that there is always fallout of the memory with accordance to time. The study of the age group 14-24 years were closely observed and found out that this subject of age group are more attentive and witty, which makes them analysis or guesses any kinds of items in a random view. The other study of the age group 25-35 years are lesser in attentions and fail to make an impression or guesses with a single or random view. The comparative study shown table no. 5, 6, 7, 8 and table 1, 2, 3, 4 has observed the very fact that the subject of study of age group 25-30 seems to be more stressful due to the varied factors of work pressure, time factors and management issues. From the above study and analysis, it has been observed that, the highest rate of the guess factor of the right items were 13 and the lowest guessed items were ranging towards 1 in the study subject group of age 24. Thus, the study signifies that the age group of 14-24, has the larger amount of retaining the memory power and also the lesser amount of retaining memory power. This subject of study has been a sincere approach.
towards the assessment study of the different age group in retaining or in the process of memory retrieval capacity.

REFERENCES: -

