

Effects of text emphasis techniques on memory retention



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To enhance the amounts of information retrieved, as well as giving focus on important part of notes, students often do highlighting, circling, and underlining. Those three methods are called text-emphasizing. Recent studies have shown that the techniques could help the students to retrieve and store more information compared to students who do not use such techniques. However, no studies have further developed their research to the extent of comparison between each technique.

This experiment is conducted to find the best emphasis method among three methods - highlighting, circling, and underlining - for memory retention. In this experiment, participants are given a control passage, a passage without any text being emphasizes, before answering a set of 10 multiple choices questions, without looking to the passage.

After a short break, they are given another passage with a text emphasizes technique, and answer another set of questions without looking to the passage. The score of the test will be recorded to determine the most effective emphasis method.

This experiment shows that the best emphasis method is circling, and followed by highlighting. Underlining is found to be the least effective of the three methods.

While this experiment only focuses on each method's effectiveness on short term memory, further research might analyses the long term memory.

Despite he fact that each students may have different preferences over the emphasis technique used, students can be encouraged to try using circling in their studies to increase the information retrieved and stored.

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ABSTRACT (BY Hon. Kiang Eden Erosion) Memory plays an important role in many aspects of a student's life. From scoring well in examinations to real world applications of what they have learnt, the importance of content recollection has spurred many students to use text emphasis methods in order to allow them to remember and recall better. Studies have shown that marking on texts allows for better content retention.

However, despite the fact that there is widespread use of emphasis techniques, little has been done to ascertain which method commonly used is the most efficient.

In this research, three common methods, namely highlighting, circling and underlining, are pitted among each other students about the best technique to use so as to maximize their innate potential during the times when recollection of content is required. In the experiment, subjects from similar educational background were given two tests to fulfill objectives of determining the best method. The first test was a control where the task was to read wrought a passage in a given time and answer corresponding questions.

The second test had important information pre-marked by one of the three methods.

After collating the results, it is found that, in accordance with past research, all three methods saw an increase in scores versus that of the control test. Moreover, subjects who received circled passages had the highest increase in scores, followed by highlighting and underlining. Thus, pronouncing circling as the best method.

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Considerations for future research include having subjects locate important information by themselves for a more accurate representation of reality.

ABSTRACT (BY Chaw Kook Liana) Throughout the years, students have developed numerous ways of emphasizing keywords.

The most common methods are circling, highlighting and underlining.

Despite the popularity of the mentioned methods, little information is known about them.

There are numerous studies that discussed the effectiveness of text-emphasizing. However, none of them specifically differentiated circling, highlighting and underlining. These methods are often grouped together as one text-highlighting method. Therefore, the purpose of this study is to differentiate circling, highlighting ND underlining in terms of memory retention and retrieval.

The participants of this experiment consist of an equal number of 30 male and female students who aged between 18-25 years old. The experiment was divided into two sections, whereby in both sections; participants were required to read through a passage followed by answering a list of multiple-choice questions. Unmarked passage was used in the first section of the experiment while a pre-marked passage (either by circle, highlighting or underlining) was used in the second section. The score or specifically the number of questions answered correctly was recorded and used to compare the efficiency of each method.

Results obtained agreed with the past studies that text emphasis increase memory retention and retrieval. In addition, the results also showed that <https://assignbuster.com/effects-of-text-emphasis-techniques-on-memory-retention/>

participants who read the circling passage gained the most significant improvement in score and hence suggested that circling was the best method among highlighting.

While this study aims to determine the most effective method among circling, highlighting and underlining using pre-marked passages, further studies on unmarked passages can be done to provide a more accurate representation of the actual study conditions.

ABSTRACT (BY Lisa Burnham) The search for the most effective method of retaining and recalling information from printed texts has always been a prominent topic among students. Text emphasizing methods have often been applied to help students extract and review key terms in their study materials. However, few studies have compared the effectiveness of the three most commonly used text emphasizing methods: highlighting, underlining and circling. Consequently, students spent excessive amounts of time and effort in testing and developing each method.

This study thus aims to determine the best text emphasizing method in improving short-term memory.

Different emphasis method were applied digitally, with controlled parameters, onto one passage, creating four separate versions, namely Control, Highlighted, Circled and Underlined. After reading one of the versions, participants were required to fill questions about the passage. Comparing the test results, it is found that participants reading the emphasized passages scored higher than those reading the Control passage.

This agrees with findings from past studies, which suggest that visual cues improve memory retention.

Also, participants reading Circled passages scored higher, followed by Highlighted and lastly Underlined version.

Therefore, the findings suggest that circling is the most effective method of stimulating short-term memory and should be applied or researched upon further. More studies can be done to include the effects of manual circling techniques on memory improvements. Proper techniques of text emphasizing which maximizes accurate retention and recall of key information can then be disseminated to education institutions to help students in their studies.

ABSTRACT (BY Wong Chug Ping) Various techniques have been used by students along the years to help them remember contents of their studies in preparation for exams. However, it is questionable if the techniques they habitually use bring them the most benefits as its effects are not easily quantifiable. Also, most studies discuss whether marking helps in remembering while others list study methods and compare the categories among themselves.

Consequently, most are unaware of the potential benefits of alternative techniques.

This paper focuses on the effects of the popular method of text-emphasis which refers to circling, highlighting, and underlining. This paper aims to determine the usefulness in improving memory retention of each method of

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text- emphasis. To measure and quantify the methods' efficacy, participants had to read and complete two passages and two quizzes under a stipulated amount of time. The first passage was a control hence unmarked and the next is marked with a text- emphasizing technique.

Their grades were then collated and each approach was compared to see how much better the participant faired with and without text- emphasis.

Results showed that circling is the most effective method as participants gained the most improvement in their grade (23. 1%) as compared to other methods (18. 5% for highlighting, 6. 7% for underlining).

This shows that, with respect to memory retention, circling is possibly the technique that would benefit students most. Unfortunately, some constraints such as the difficulty of taking into account personal preference and language proficiency exist.

Nonetheless, students or any others who frequently use emphasizing techniques are encouraged to try circling and remain open to adopting new strategies in order to discover their potential in their relevant fields.

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0 INTRODUCTION In Singapore universities and various education institutions nowadays, massive amounts of notes and readings are distributed through the use of technology.

However, most students would print out the information required and proceed to extract information from the printed copy. It is also proven that reading narrative and expository information in digital form is less effective than reading it from a hardcopy (Manage, Walgreen & BRBΓënick, 2013). As a result, students have spent excessive amounts of their time searching for the most effective methods of memorizing information from printed notes. Text-emphasizing techniques are possibly the most convenient form of learning through printed texts, as studies by Dunlop, Rawson, Marsh, Nathan and Willingham (2013) have found.

One commonly used example of text emphasizing-techniques is text highlighting.

According to Weinstein and Mayer (1983), this strategy will help the reader to focus on the important parts of a passage and hence more information retrieved from the passage can be retained for further reprocessing. In addition, numerous studies have discussed effectiveness of the techniques; one showed that reader who highlights text perform better than those who do

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not highlight at all (Www & Yuan, 2003). The three most commonly used methods that will be evaluated in this paper are underlining, circling and highlighting.

These three methods are often grouped together as text highlighting in other research papers and used as an aggregate when compared with other study techniques.

In this paper, however, the term text-emphasizing is used to avoid confusion with the act of highlighting. Although research on the effects of text-emphasizing techniques has been extensive, few studies have been done to differentiate the three most commonly used methods. Available papers mainly explore the range of alternative studying methods and compare them to each other. Others compile results from these papers, evaluate and rank their accuracies.

As a result, it is difficult to find a study that delves into the subcomponents of each technique, which is crucial to help users, specifically our target audience, in making informed decisions as to which text-emphasizing techniques should be applied. Due to the lack of research, this topic was identified as being important to students in finding out the most optimal visual method for memory stimulation.

Hence, this research will focus on distinguishing the effectiveness among the three methods (underline, circle and highlight) in terms of memory retention and retrieval.

Their efficiencies will be evaluated based on the score which the participants obtained during the test. 2. 0 LITERATURE REVIEW This review will discuss the scope and relevance of studies that have been conducted on the effects of text emphasis techniques such as underlining, circling and slighting, particularly in aspects of information retrieval and memory retention. Most studies that have been conducted on the subject agree that text emphasizing will increase reading performance.

For example, participants in a study who underlined key information on a reading material were able to remember more facts than those who did not (Weinstein & Mayer, 1983).

However, the research found did not distinguish the effectiveness among the three methods (underline, circle and highlight) in terms of memory retention and retrieval. Although most studies agreed that text emphasis will improve reading performance, here are other studies showing that text highlighting is not always an effective learning strategy.

According to Letter, Leopold and den Olsen-Rump (2007), a possible reason is that subjects are often not able to distinguish and concentrate on the critical points of the texts. They omitted those points, believing that they do not matter. Some subjects, on the other hand, often highlight considerable sections of the text, thus diverting their attention from the critical points.

In both cases, an identical method of testing is used but there is no moderation and regulation of the ext emphasis technique applied.

As a result the specific effects of proper highlighting techniques are not distinguishable from the effects brought about by other factors, especially proficiency of the subjects in selecting key information. Another common aspect noticed among all the research papers examined is that they were all conducted in European contexts. Asian societies such as Singapore are expected to have different academic approaches due to variation in education culture (V, Ratline & Salesman, 2012). Although the studies examined above have conclusive results, they do have their imitations due to the scope of each study.