

Do students learn better through pictures, words or numbers

Introduction:

The aim of this experiment is to find out if students are better at recalling pictures, words or numbers. In order to test this, we conducted an experiment with 30 participants in our year, all randomly from different classes. There were three parts involved in the experiment. For the first part, participants were shown a list of words on the whiteboard and then they were shown images and numbers. Participants were given a few minutes to recall the words, images and numbers. And lastly, we asked the students to write what they can recall on a piece of paper.

Why we chosen this topic:

As we are 4th year students, soon we have to choose the subjects we want to do for leaving cert. Each subject has different content and different learning methods. For example, accounting is said to be a good choice for student who are good with numbers and history would be for students that learn through words and language. There is a lot of talk about what type of student you are, how you learn and what subjects would suit you. This formed the idea of our project. We were wondering which way students learn the best and retain the most information. Do students learn better visually, numerically or through language.

Hypothesis:

We predict that students will learn best through visual images. The second best medium of learning would be words, and that students would struggle the most with numbers.

Background Information

According to Zabisco, the average person responds far better to visual information compared to just plain text. Whether you're buying a product or revising for an exam, visual stimulation over text translation allows the brain to consume the material with more consummate ease. 90% of information transmitted to the brain is visual, and visuals are processed in the brain at 60,000 times the speed of text. In other words, we look at pictures and videos regularly and we consume them more quickly than we do text or numbers.

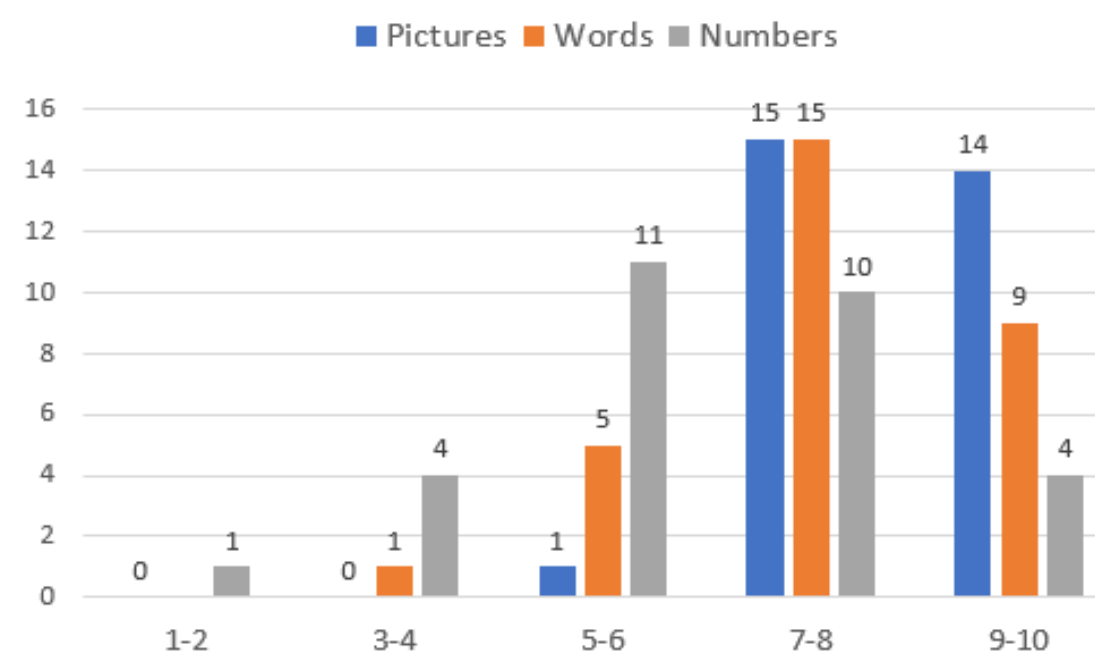
Method:

1. We tested a group of 30 students for this project.
2. We gave each student a paper and a pen and made them stay silent.
3. We played 10 images on the board one after the other. Once we were done showing the images, we asked the students to write down as many images from the slideshow as they can remember.
4. Then we showed 10 words and asked the students the same.
5. Lastly we repeated this process with 10 numbers.

Results:

	1-2	3-4	5-6	7-8	9-10	
Pictures		0	0	1	15	14
Words			1	5	15	9
Numbers	1	4	11	10	4	

SCORES OBTAINED BY STUDENTS IN MEMORY TEST OUT OF 10



8.33

Average score on visual test

7.77

Average score on written test

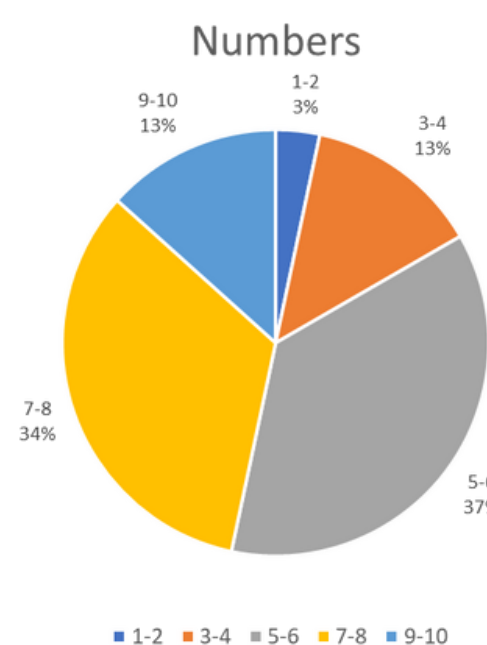
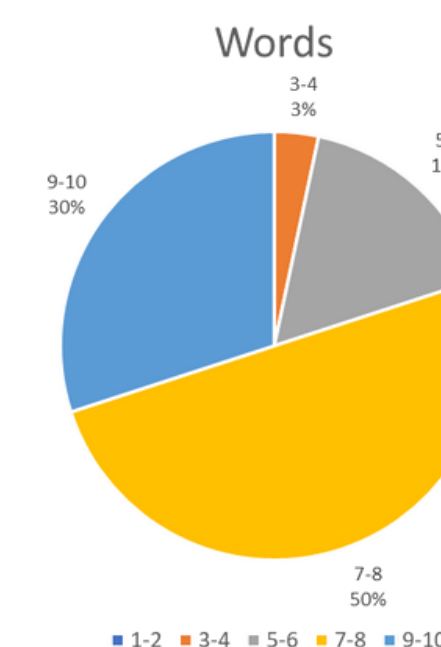
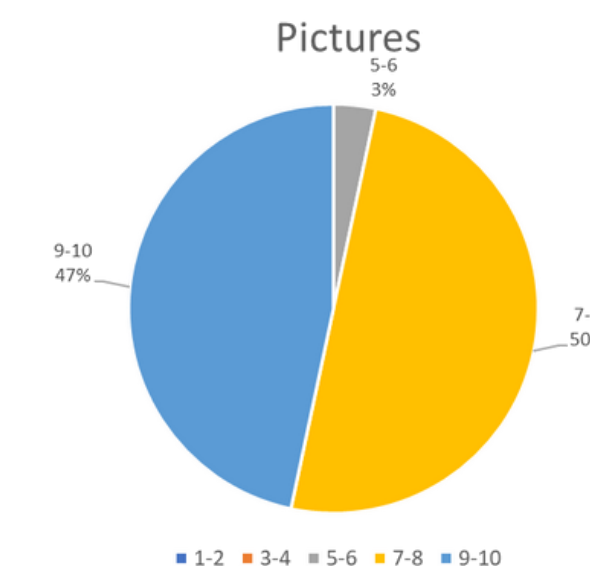
6.27

Average score on number test

Results Table

We found the mean, mode, median, standard deviation and the inter-quartile ranges for all three sets of data. This data supports our hypothesis and you can see a table with the results here.

Results	Pictures	Words	Numbers
Mean	8.33	7.77	6.27
Mode	9	8	7
Median	8	8	6
σ	0.83	1.52	1.91
Q1	8	7	5
Q3	9	9	7



Conclusion

The results of the experiment were statistical findings that reflected that participants remembered the visual images substantially better than the text and numbers. The overall conclusion is that images are recalled the best, words are recalled the second best and numbers the worst which proves the experimental hypothesis. These findings may apply to a range of situations, including teaching methods as well as an aid for studying.