

## An evaluation of how class breaks impact on student medium and longer-term retention of language items covered in class

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**FACT** Most classes at our university and many others are 90 minutes.

**FACT** Over 50% of students we surveyed said they cannot concentrate for even one hour.

**FACT** Nonetheless, many universities are moving to 100 or 110-minute classes.

Researchers have said that breaks can renew vigilance.

Mackworth calls for 5-minute breaks, Krulewitz for 20-minutes\*

Griffey suggests that breaks should involve physical movement, rehydration, and resting of the eyes\*\*



Would a 5-minute break in the middle of class, aimed at renewing vigilance, affect retention of language items learned in class?

Method: Two parallel studies considered groups of roughly 30-member coed freshman English language courses over a semester.

### Study A

A unique test each class. Breaks were provided in alternating classes. Midterm and final class tests contained previous test in a randomized order.

### Study B

The same quiz was presented for 2 consecutive weeks, with a break provided only in one of the classes. This process was done 7 times.

\* Davies, D., & Parasuraman, R. (1982). *The Psychology of Vigilance*. London, England: Academic Press.

\*\*Griffey, H. (2010). *The Art of Concentration*. London, England: Rodale.

## Results

Study A: 2 of 5 classes on average scored higher on tests in classes where no break was administered. However, 4 of 5 received higher marks in review tests for items taken from classes with breaks than those taken from classes without.

Study B: 3 times students scored better when a break was given, 3 times students scored better when there was no break, and once the scores were the same.

Class day and time	Weekly test results (up to 5 pts)		Review test results		Review test decrement	
	Break	No Break	Break	No Break	Break	No Break
Tuesday 1 <sup>st</sup>	4.2502	4.44318	3.801846192	3.707070707	0.448353808	0.736109293
Tuesday 3 <sup>rd</sup>	4.50612	4.2113	3.621517028	3.641827485	0.884602972	0.569472515
Tuesday 4 <sup>th</sup>	4.032941	4.206349	3.259117647	3.176126591	0.773823353	1.030222409
Thurs. 4 <sup>th</sup>	4.188364	4.39899	3.559565217	3.503129117	0.629798783	0.895860883
Friday 2 <sup>nd</sup>	4.434338	4.112392	3.689618382	3.317866588	0.744719618	0.794525412

Figure 1: Study A results

Item, Quiz no., break [B], without break [NB], no. of students	RAW STUDENT SCORES (out of 6)								Total
	[B], without	[B], without	[B], without	[B], without	[B], without	[B], without	[B], without	[B], without	
G1 Q1 [NB] (22)	3.14		2	6	3	5	3	2	
G1 Q1 [B] (18)	2.57	↓	0	4	4	6	4	0	
G1 Q2 [NB] (18)	2.57		0	2	3	4	8	1	
G1 Q2 [B] (17)	2.43	↓	1	2	6	5	3	0	
G1 Q3 [NB] (21)	3.00		0	1	4	4	7	5	
G1 Q3 [B] (15)	2.14	↓	0	0	4	6	2	3	
N1 Q1 [NB] (18)	2.57		2	4	5	5	0	2	
N1 Q1 [B] (26)	3.71	↑	3	6	2	1	5	0	
N1 Q2 [NB] (24)	3.43		0	6	5	6	2	3	
N1 Q2 [B] (20)	2.86	↓	2	4	3	1	4	3	
N1 Q1 [NB] (23)	3.29		5	3	1	6	5	3	
N1 Q2 [B] (23)	3.29	-	3	1	4	3	7	4	
N4 Q1 [NB] (22)	3.14		3	4	5	4	3	2	
N4 Q1 [B] (23)	3.29	↑	5	4	3	5	3	1	
N4 Q2 [NB] (20)	2.86		5	4	5	3	1	0	
N4 Q2 [B] (26)	3.71	↑	2	2	5	6	8	3	
N4 Q3 [NB] (22)	3.14		0	5	1	6	5	3	
N4 Q3 [B] (23)	3.29	↑	0	4	3	1	10	3	

Figure 2: Study B results

## Conclusion

There is no clear evidence that breaks in the middle of a 90-minute university lesson enhance short-term memory of language items. Long-term vocabulary retention, on the other hand, shows more compelling results. Nevertheless, a number of limitations were identified and a more controlled study is merited.