

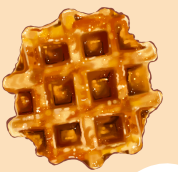


How does Breakfast Habits Affect Attention Span at School?



Aim

Our aim was to investigate how unhealthy morning eating habits affect attention spans during school. We focused on Year 8 students, aged 13-14, as this age group is likely to develop poor breakfast habits due to increasingly more busy schedules. By examining these habits, we aimed to highlight the connection between breakfast and focus in school.



Introduction & hypothesis

Our investigation focuses on morning eating habits' impact on attention levels in school, particularly the negative effects of skipping breakfast. We chose this topic after noticing the low percentage of students who regularly eat breakfast, and how this could be affecting their focus and productivity in school. Our hypothesis is that the lack of time in the mornings has led to unhealthy breakfast habits, negatively impacting attention spans and overall academic performance. We aim to gather data on how often students eat breakfast and its correlation to their attention in school. We hope to raise awareness of the importance of morning nutrition and provide healthy breakfast alternatives to support students' health and education.

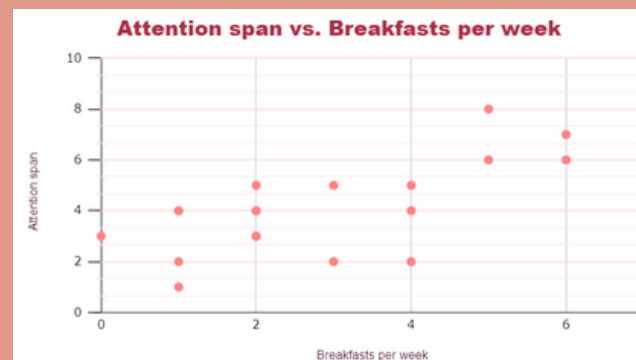
Analysis

We represented the data from our numerical questions "How many times a week do you eat breakfast?" and "In general, how strong is your attention span during school (on a scale from 1-10)?" in a scatter plot. This graph clearly indicates:



Breakfast per week:	Attention span:
- Mean \approx 3.2	- Mean \approx 4.4
- Median = 2	- Median = 4
- Mode = 0	- Mode = 2
- Range = 6	- Range = 8

There is a positive correlation between the number of breakfasts per week and attention span. As the number of breakfasts increases, attention spans generally increase. Students who have more breakfasts per week tend to have higher attention spans, with outliers in both directions.



Method

In order to obtain the necessary data to prove our hypothesis, we created a Google Form which was sent to the year 8 cohort. This form proposed the following numerical questions on our topic:

1. How many times a week do you eat breakfast? (out of 1-7 days)
2. On average how long does it take you to eat breakfast? (out of 0-10, ..., 40-50)
3. In general, how strong is your attention span during school? (scale of 1-10)

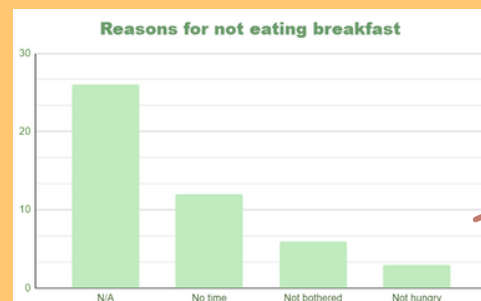
Additionally, our form also included the following categorical question:

1. If you don't eat breakfast 7 days a week, what is the reason? (If you do eat breakfast seven days a week, write N/A)

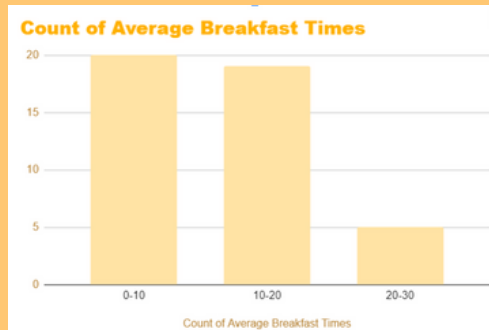
We received a total of 45 responses, which was then converted into a scatter plot and column graph, to analyse.

Analysis

Furthermore, we represented our data found on the categorical question through a column graph. From the results seen in the graph below it is evident that the largest contributor to the poor eating habits, in the morning, was lack of time.



We represented our data for our second numerical question, with a column graph (seen below). A common trend seen amongst those who eat breakfast is that they spend 0-20 minutes to eat. From this we can combat the claim found from the above graph, and state that lack of time shouldn't be a prominent barrier between having breakfast everyday, as it can only take 5 minutes if necessary.



Interpretation

Based on the responses collected from Year 8 students, our data reveals a positive correlation between breakfast habits and attention span at school. Students who reported eating more breakfasts per week generally had higher attention spans, with those eating six breakfasts per week showing the highest scores. However, students who ate fewer breakfasts, especially those who skipped breakfast entirely, tended to have lower attention spans. Whilst there are exceptions, the trend suggests that regular breakfast consumption can improve students' attention during school hours.

Our investigation was limited as we only had a sample size of 45 students, which may not fully represent the broader Year 8 population. Additionally, attention span was self-reported, which introduces subjectivity and potential bias. We did not control for other factors that could influence attention, such as sleep quality, stress levels or diet outside of breakfast. These limitations could potentially affect the accuracy of our findings.

Limitations + Ideas for further research

For future studies, we could expand the sample size to include more students from different year levels for more comprehensive results. It would also be beneficial to investigate other factors that could impact attention, such as the nutritional value of breakfasts consumed, the students' physical activity levels or how long they sleep. Adding more objective measures of attention, such as teacher assessments or classroom performance, could also improve the accuracy of future research.

Conclusion

Our investigation supports the idea that breakfast habits may have a significant impact on attention span in school. Students who ate breakfast regularly tended to report higher attention spans, suggesting that consistent breakfast consumption could improve focus and performance during school. While our findings align with existing research on the benefits of breakfast, further investigation with a larger sample and more controlled variables would provide deeper insight.

