SOCIAL MEDIA BEFORE SCHOOL

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Introduction, aim and hypothesis

As Year 8 students of North Sydney Girls, we have noticed a significant lack of concentration during the first two periods of school.

Aim: We aim to determine whether the usage of social media before school has a meaningful correlation relationship with the apparent lack of concentration.

Hypothesis: We hypothise that if one spends a longer amount of time on social media before school, then their attention span would be more negatively impacted.

Who we aim to survey and why

We have personally and collectively experienced the addictive nature of social media ourselves, and coincidentally we have observed that our peers seemed to be more distracted in period 1 and 2 of our school day. This led us to wonder whether there is a direct correlation between the lack of concentration and social media usage in the morning. We aim to survey and investigate a **sample of the Stage 4 students of North Sydney Girl**s, as it was difficult to conduct a census of the whole population of Stage 4. Our analysis and data attempts reflect the Stage 4 students of our school.

Method

A survey in Google Forms was sent out to 2 classes in Stage 4, **one year 8 class and one year 7 class**. This survey consisted of carefully selected categorical and numerical questions, for statistical analysis. After the survey was sent out, we recieved a total of 58 responses, which were entered in Excel. **We displayed this information in various types of graphs** (divided column graph, etc.) that were best suited for the analysis.

Survey Questions

NUMERICAL:

- Today before school, how many minutes did you spend on social media? (0-30, 31-60, 61-90, 90+)

CATEGORICAL:

- What social media platform have you used the most today before school? (Snapchat, Tiktok, Instagram, Whatsapp, Discord, Youtube, Others)
- How good was your overall concentration at school today from period 1-2? (Poor, basic, expected, high, outstanding)

Figure 1 analysis

Our graph in figure 1 displays the data we have collected, which **compares one's amount of time spent on social media and their level of concentration**. The **divided column graph** not only clearly showed the amount of people in each time interval, it also displayed the varying levels of concentration of each person in those intervals. We have calculated the mean level of concentration for each time interval, which is shown on the right. It is clear that the lowest mean is at the 90+ time interval and the **level of concentration generally decreases as the time spent on social media increase**s. This demonstrates the inverse relationship between one's level of concetration and amount of time spent on social media. Therefore, our hypothesis is proven to be correct.

MEAN OF LEVEL OF CONCETRATION (1D.P):
0-30MINS: 3.5
31-60: 3.6
61-60: 3.3
90+: 2.5
Range of mean concetration = 1.1

Figure 2 analysis

To understand and interpret our aim even further, we have decided to investigate whether specific social media apps affects students' concentration more greatly. Our graph in Figure 2 is a **pie chart**, which provides a clear display of the data we have gathered through the question, "What social media platform have you used the most today before school?". Through this chart, we can easily determine the **mode** of the data, **'Whatsapp'**, which is proven to be the most popular social media app used by Stage 4 students before school.

FIGURE ONE

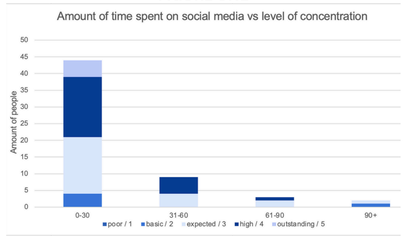

FIGURE TWO

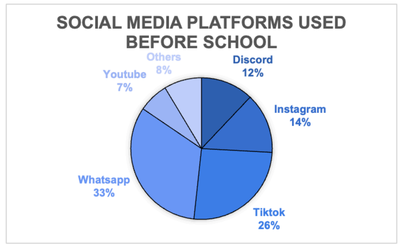

FIGURE THREE

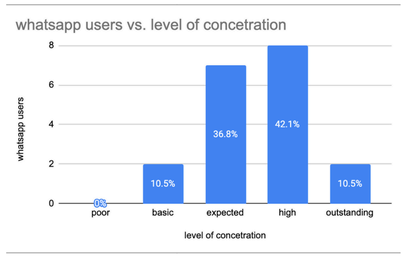

FIGURE FOUR

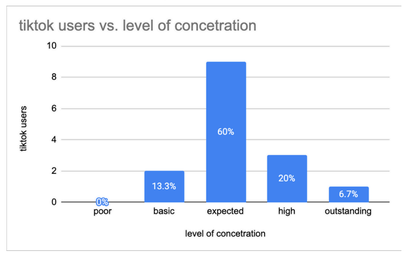

Figure 3 & 4 analysis

Through the data obtained from Figure 2, we have created two column graphs comparing the concetration levels of the people who use the **two** most popular apps that students use before school : **Whatsapp and TikTok**. Through these graphs we aim to figure out whether if different types of social media apps impacts one's level of concetration more. Whatsapp users have a total of **52.6%** of the their population that chose high levels of concetration (high and outstanding), while Tiktok users only had **26.7%** of their population in those categories. The **median** level of concetration for Whatsapp users is high, whereas the median for TikTok users is expected. Through this, we can determine that **TikTok impacts one's level of concetration more poorly than Whatsapp**. We can assume that this may be due to short videos on TikTok, which is proven to negatively impact people's attention spans. Therefore, not only did we find out that social media usage before school affects students' level of concentration as stated in the hypothesis, but we also discovered that **different types of social media apps may take different effects on concentration levels**.

Conclusion

Our hypothesis and aim have been supported through our analysis of Figure 1, which displayed the **inverse relationship** between one's amount of time spent on social media and students' level of concentration (**their concentration decreases as time increases**). Furthermore, we discovered that time was not the sole factor that determined one's level of concentration, but also the type of social media app that they used. This is supported through our analysis of Figure 2, 3 and 4. Therefore, our overall findings showcase that **students should avoid extensive use of social media in mornings**, especially apps such as TikTok in order to benefit their concentration.

Limitations and Ideas for Further Research

Our survey has numerous limitations that affected the overall validity and accuracy of our findings and results. Our **sample size was too small** for us to accurately represent the entirety of the Stage 4 population of our school, meaning that our findings cannot be confidently applied to a wider population. Our data is **not highly generalisable**, as it only reflects the views of a limited number of students. We also **did not consider that other factors** such as not getting enough sleep may impact students' concentration levels in school. Finally, our survey responses may not be entirely accurate, as our questionnaires **relied on students' own standards and their personal judgement** of their levels of concentration. To further investigate our topic, we could **increase the sample size** in the future, in order for our findings to be more reliable and generalisable. We could also **extend our investigation across multiple days**, rather than asking for our participants' levels of concentration only on the day they completed our survey. This ensures that the data collected is more accurate, and not dependant on only one day's worth of concentration.