

The Impact of Daily Screen Time on High School Academic Performance

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Abstract: This study examines the relationship between daily screen time and academic performance among high school students. We collected data from 100 students at Riverside High School using a survey on screen time habits and recent GPA. The results show a negative correlation between screen time exceeding 3 hours per day and lower academic performance, with students reporting more screen time tending to have a lower GPA. However, moderate screen time (1-2 hours) had no significant impact. Our findings suggest that while excessive screen time negatively impacts academics, controlled and purposeful usage may not harm student performance. This study contributes to ongoing debates about technology in education and its role in student success, highlighting the need for further research on the balance between technology use and academic achievement.

Keywords: Screen Time, Academic Performance, High School, Habits, GPA

1. Introduction

With the rise of digital technologies, screen time has become an integral part of students' daily routines. Whether for schoolwork, entertainment, or social media, students now spend a significant portion of their day in front of screens. This study seeks to explore the question: "How does daily screen time affect the academic performance of high school students?"

Previous studies have presented conflicting conclusions. While some research suggests that excessive screen time can lead to decreased focus and poor academic

outcomes, other studies indicate that moderate and educational screen use might support learning (Anderson & Subrahmanyam, 2017). This study contributes to the literature by specifically examining the relationship between non-academic screen time and GPA among high school students.

The significance of this study lies in its potential implications for educators, parents, and policymakers as they navigate the increasing presence of technology in students' lives. If there is a clear link between screen time and academic performance, guidelines on screen use may

need to be re-evaluated to optimize student success.

2. Methods

Study Design

We conducted a quantitative, observational study to investigate the impact of daily screen time on academic performance. A cross-sectional survey was distributed to high school students to gather data on screen usage and academic performance.

Participants

The study included 100 students from Riverside High School, ranging in age from 15 to 18. Participants were selected using simple random sampling from the school's student population. Consent forms were distributed and signed by both the students and their guardians before participation in the study. The study complied with the school's ethical guidelines for research involving minors.

Data Collection

Data were collected through a self-administered online survey. The survey asked students to report:

- Daily screen time (categorized into less than 1 hour, 1-2 hours, 3-4 hours, and 5+ hours)
- Type of screen time (schoolwork, entertainment, social media, gaming, etc.)
- Recent GPA (as reported by the students themselves)

Tools and Materials

We used Google Forms to design and distribute the survey. Data was then exported to Microsoft Excel for analysis. Simple linear regression was conducted to determine the relationship between screen time and GPA.

3. Results

Data Presentation

The data were analyzed and categorized into four groups based on daily screen time. The average GPA for each group was calculated, as shown in Table 1.

Daily Screen Time (hours)	Average GPA
<1	3.75
1-2	3.60
3-4	3.20
5+	2.80

The results indicate a general trend where students with more screen time have lower GPAs. Figure 1 shows the relationship between average GPA and daily screen time.

Significant Findings

A statistically significant negative correlation was observed between screen time of 3 hours or more and GPA ($p < 0.05$). Students with less than 3 hours of daily screen time generally maintained higher GPAs (above 3.5), while those with 5+ hours had significantly lower GPAs (averaging 2.8).

4. Discussion/Conclusion

Interpretation

Our findings suggest that excessive screen time is negatively associated with academic performance, supporting existing research that highlights the potential detriments of heavy screen use (Twenge & Campbell, 2018). Interestingly, moderate screen time (1-2 hours daily) did not significantly affect GPA, implying that limited, purposeful screen usage may not interfere with students' academic achievements.

Implications

This study provides important insights for educators and parents regarding the need to monitor and manage students' screen time. While technology plays a vital role in modern education, our research indicates that screen time beyond 3 hours daily is associated with lower academic performance. Schools may need to implement policies that encourage balanced technology use, promoting screen activities that enhance learning rather than detract from it.

Limitations

One limitation of this study is its reliance on self-reported GPA and screen time data, which may not always be accurate. Additionally, the study does not account for different types of screen time (e.g., passive social media browsing versus active engagement with educational apps). Further research could explore the impact of different kinds of screen usage on student performance.

Conclusion

In conclusion, our study demonstrates a clear relationship between excessive daily screen time and lower academic performance in high school students. To promote better academic outcomes, both students and educators should be mindful of managing screen time. Future studies should investigate the effects of specific types of screen time and how different educational tools might mitigate these negative impacts.

References

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