The Effects of Screen Time

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Our Question

Many teenagers have been bombarded with the belief that technology is evil, and that spending too much time on it leads to serious detriments. With the opportunity that we were given, we decided to question the actual effects that technology had on people, and whether age groups affected the symptoms.

Background Information

There have been many claims that excessive screen time can cause a variety of harmful effects especially on teens and children. Some argue over whether or not this is true and if so what the effects are. To find the answers to these questions there have been studies over the about the effects of screen time especially on children and adolescents because they have been surrounded by technology since birth. Depending on the focus of these studies a range of effects have been related to screen time from obesity and poor lifestyle to depression and irritability. Experts say that more than two hours of screen time a day increases the risk of these effects especially depression. Other effects include higher levels of anxiety, behavioral issues, and some evidence of lower self esteem and fitness. However, some of these effects only have weak evidence to support them due to the limitations of the quality of the studies or scarcity of information. Information on this topic is limited since scientists are currently still exploring these symptoms and their relation to screen time. Using the information from these studies we have focused our project on proving whether or not screen time actually has these effects and furthermore, how does this apply to different age groups.

Methods and Participants

In our pursuit of the question, we created a ~2-3 minute survey which asked participants to list out the self-diagnosed effect that they could find. We used Google Forms, as it was easily accessible, and shared it through several sources. Each of us shared it with our friends and family, some of whom shared it themselves. Then, we posted the survey on Reddit in r/SampleSize, a popular subreddit for sharing and taking surveys, in addition to the Museum Website. We also sent it to a middle school teacher at Our Lady of Victory catholic school who sent it to all of the middle school students. Through these means, we gathered an overwhelming 257 Responses as of 5/8/2020 of all ages and sexes.

Gender
257 responses

77.8%

21.8%

- Male
- Female
- Non binary
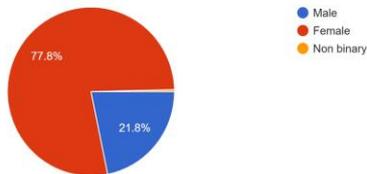
Results:

Time: a majority of the people used screens from at least 1-5 hours a day

Social media: the time spent on social media is widely varied

Memory: most people rated their memory between 6 and 9 (on a scale of 1-10 10 being perfect) and only 44 people felt that screens affected their memory

Awareness: a majority of the responses claimed an awareness between 5 and 9 while using technology (on a scale of 1-10 10 being perfect)

Effects: The most common effects included trouble sleeping, increased irritation, neck/back pain, vision issues and headaches with only about 14% of the people claiming that screen time has no effect on them

Use: The results for use of phones was widely varied with the most common uses being games, music, work, social media and education. A majority of the respondants answered that they sometimes or often use their phones to solve simple problems

Age ranges: The overall age range of respondents was between 11 and 81 the results for use of technology among different age groups was pretty varied. However, the groups with the highest screen times ranged from age 15-50.

Conclusion:

Our results have given us a substantial amount of evidence to prove and disprove several effects of screen time. After observing the results related to memory we have found that there is no correlation between memory quality and screen time. However, we found that a majority of the respondents had mental and physical effects. Common physical effects that we were able to connect to screen use included neck and back pain (20%), vision problems (15%), and trouble sleeping (19%). Mental/emotional effects that we were able to connect to screen use included increased irritation (11%), and depression. Please note that while percentages seem small these were taken from a large group of possible responses. We also found that people who spent more time on screens tended to have more of these effects.So, in conclusion screen time does have mental and physical effects on us depending on how long we use the screens.. The age groups with the highest screen times (ages 15-50) are more at risk for experiencing these effects. There was not enough evidence to claim that memory quality is affected by screen time. Unfortunately we were not able to examine the effects of specific uses of screens due to the extremely varied responses in most used apps.

References:

Title Page Picture:

www.classiclifts.co.uk/wp-content/uploads/mobile-technology.jpg

Background research:

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6326346/)

- https://www.healthline.com/health-news/how-does-screen-time-affect-kids-brains

- https://medlineplus.gov/ency/patientinstructions/000355.htm