



Introduction:

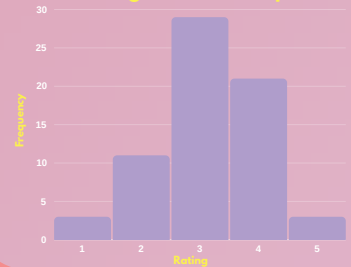
Technology is an ever-evolving field, continuously advancing and shaping various aspects of modern society through substantial use in the majority of the worlds population. How does the integration of technology into daily life impact the sleep quality and learning behaviours of teenage students?

Technology as a field has contributed to humanity in many ways creating numerous devices which work together to make the life of humanity easier. While technology is extraordinarily useful in our daily lives, it can also negatively effect us. From sleep to attention span, technology and the way we use it can impact us way more than we think. Technology holds an effect on the human body and how our brains function. This idea that constant use of technology can affect our mental state severely to the point where it effects how our body functions is an interesting idea and is what sparked the interest for this infographic. Through a focus on teenagers in the schooling system, this infographic will further explore many aspects of how technology, as well as the constant use of it can change our overall sleep quality and learning behaviours.

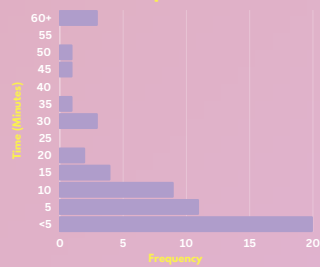


Technological Effect on Sleep and Learning Behaviour's

Rating of Attention Span



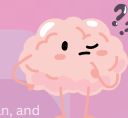
Attention Span of Students



Attention Span

When asked, the majority of teenage students questioned answered that they have an average attention span, and ability to focus. With this information compared to the second graph, the majority of people rated their attention span a 3 while can focus on nothing for less than 5 minutes.

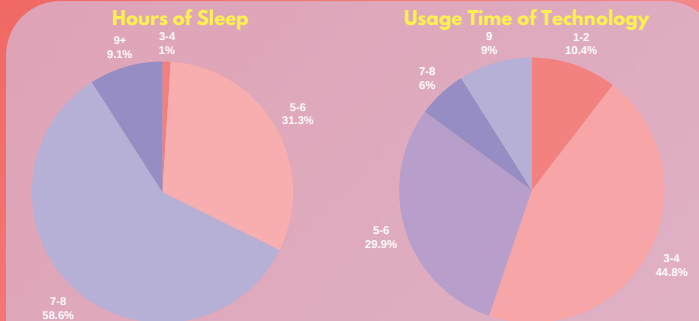
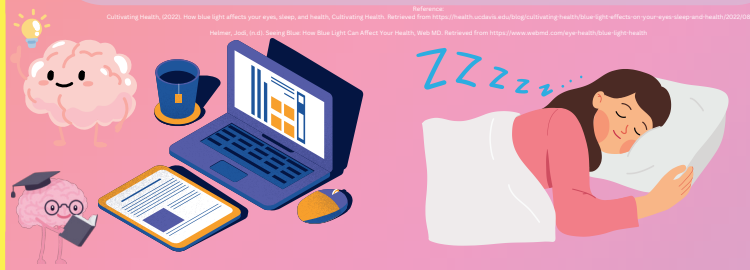
- Poor attention span leads to less productive learning behaviours as well as longer study sessions with less learning
- The average attention span of teens in 2000: 12 seconds, compared to the average attention span of teens in 2016: 8 seconds. The average attention span dropped by 4 seconds over 16 years
- The increased use of technology between 2000 and 2016 is clearly linked to the overall drop in attention span
- Apps like TikTok and Instagram Reels often use short-form content and scrollable features, which grabs attention
- These features promote quick judgment of content, reducing overall attention span and focus duration in the long term



Effect of Technological Devices

Blue light is a feature of all screen based technological devices, from iPhones to computers. Throughout the years, technology has increased and widened, allowing more people to utilise it while its improved.

- Most screen-based devices emit blue light, a necessity for display which has side effects
- Can cause digital eye strain, which leads to headaches, hazy vision, dry eyes, and eye fatigue
- Disrupts the circadian rhythm in the body by making think it is daytime, affecting sleep
- Benefits of blue light: Increases mood, improves memory/brain function, and enhances alertness
- Technology has advanced leading to more applications and features, such as Instagram, TikTok, Discord, and X (Twitter) which can cause mental conditions
- Constant use of these social media apps can lead to anxiety and depression
- Feelings of inadequacy and feeling less, when comparing to others "perfect lives." can often cause these mental conditions
- Anxiety and depression may cause sleep issues and affect a students study capabilities and focus
- Most of these issues negatively affect students' study capabilities and focus in school



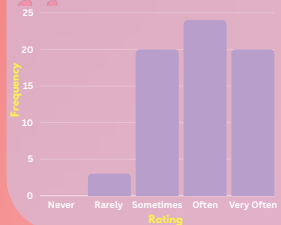
Hours of Sleep vs Hours of Technology

The pie charts above represent the hours of sleep and hours of technology used of various teenage students. These pie charts show that the majority of teenage students sleep the recommended time of 7-8 hours, while using only 3-4 hours of technology in a day. This is seen to relate as it was shown through results that

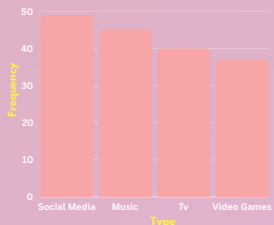
- Majority of teenage students sleep between 7-8 hours and use technology for around 3-4 hours
- On average less technology used in a day, means more hours of sleep
- There is a very big connection between the overall technology usage and sleep length
- Possible reasons are sacrificing sleep time for technology or technology affecting the overall sleep length
- Increased technology use alongside lack of sleep can affect students learning and focus within school



Technologies Affect on Studying



Most Used forms of Technology



Technological Impact on Studying

The rating of whether technology affects studying shows the majority of answers as often or very often, implying that technology of all sorts can effect the overall study session for people. The second bar chart represents the most used forms of technology with teenage students, and how many of the sample size of 67 use each of the the different forms regularly. This signifies that the forms of technology that possibly provide the most distractions are social media, video games and tv.

- Technological distractions, such as social media, can often cause loss of track of time
- Entertainment such as TV and video games can often be addictive, making it hard to stop without meeting goals (finishing an episode or level)
- Long use of social media can cause anxiety and depression, which reduces motivation to study or complete homework
- Social media notifications can often disrupt students focus during study, slowing down the overall process
- These forms of technology negatively impact studying and can often lead to distraction or procrastination
- Music, when chosen correctly, can help block outside distractions, to improve concentration and overall attention during study sessions

Source: Jennifer, 2020. What Notifications Are Doing To Our Brains. Jennifer Torres. Social Media College. Retrieved from <https://www.facebook.com/jenifertorres> and her channel.

Winnipeg, Theresa, Sanders, Miki, 2020. How Much Can Help You Study. University of Winnipeg. Retrieved from <https://www.unwinnipeg.ca/help-you-study/>

Whether Students Experience Severe Stress



Stress in Students

Stress is a very serious factor that effects many students within the full schooling timeline. Stress is brought on by various factors within the school environment, such as from a large workload.

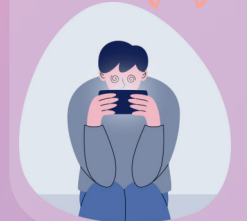
- Dependence on technology can lead to addiction, while constant social media updates can cause both physical and mental strain
- Stress from the overall schooling system is commonly reported among teenage students
- Severe stress can be a result from addiction to technology and the constant need to update your life or be online
- Stress is the body's response to pressure, it keeps the mind active until resolved, leading to insomnia or lack of sleep
- Technology can often contribute to stress, adding to the strain experienced from workload or other sources

Technological Addiction

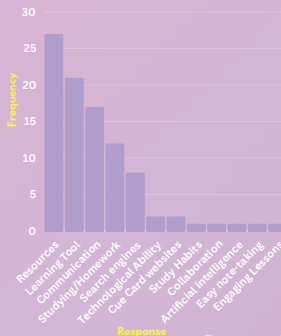
Addiction to technology is a newfound problem that is arising in the world within the youth. It is more prominent for late teenagers within the schooling or university systems. These groups are more at risk due to the constant pressure to use all sorts of technology.

- Societal pressure to have social media or contact friends helps to contribute to technological addiction
- Video games, both single and multiplayer, also play a role in addiction
- Increased use of technology in schooling and work contributes to the overall increase of technological addiction.
- These activities release dopamine, the "feel-good" chemical, which creates a desire to repeat the activity
- Technology addiction can lead to mental health issues such as anxiety and depression
- These mental health issues can cause further problems within students such as trouble sleeping or loss of focus
- Technology addiction is a serious issue, despite often being perceived as less severe than other addictions

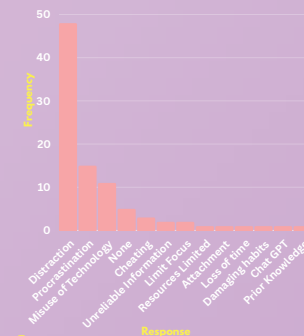
Reference: Emma, 2020. What is Technology Addiction? Emma, 2020. Retrieved from <https://www.emma.com.au/technology-addiction/>



Advantages of Technology



Disadvantages of Technology



Advantages of Technology

Technology, is a creation within the schooling system that has created many opportunities and made life a lot easier for lots of students and teachers. The use of technology creates good learning behaviours that help the students succeed.

- Technology allows very easy communication between students and teachers, promoting a students eagerness to learn
- Teachers can use technology to send important messages to entire classes or to other faculty
- Technology provides access to many resources that students use for studying and completing work
- Teachers can create engaging and intriguing lessons, which helps maintain student attention
- Search engines allow students to quickly find answers to most questions they have
- These advantages support good study skills and learning behaviours, enhancing students ability to learn and the overall efficiency of it

Disadvantages of Technology

Technology in the school system, while it allows us to do many amazing things that make life so much easier it still has its flaws.

- Technology has introduced new flaws, notably distraction and procrastination
- The vast number of websites and the constant flow of new media makes it easy for distraction
- Video games and TV are major distractions, diverting attention from the students work
- Procrastination involves delaying important tasks, technology helps invoke this by providing numerous distractions
- Procrastination leads to poor study habits, with work often rushed at the last minute
- Delaying tasks can result in sleep loss as students may stay up later to complete work, pushing through their tiredness

Conclusion

This infographic explored how technology can effect the human body, focusing on sleep and learning behaviours in teenage students. The infographic explores various subtopics that all relate to the main topic, to see how technology affects different parts of a teenage students life. Although technology is immensely useful in the life of a student, there are also side effects from constant use different forms. Through the side effects more about how technology effects and changes different parts of the students life such as their study habits, or the way their brain functions is explored. The infographic has compared both stances on whether technology is useful and safe for students to still use, acquiring evidence from both sides. Technology is immensely useful in our daily life, it is constantly improving. It has been determined, that excessive use of technology can lead to various issues, from mental issues to issues with focus or attention span. Humans have an over-reliance on technology, utilising it continuously throughout our days, while in most cases this barely effects the users body or mind. Those who become addicted to it or are non-stop using technology are more susceptible to various mental health conditions that can affect the quality of their sleep as well as their study habits within a school setting

