How do different types of screen time affect kids' learning and development, and how can teachers help?

By Aggie Bennett, Grace Bond, Lili Markel, Angelica Miller, & Emma Turner

+

0



The Balance Between Educational and Non-Educational Screen Use



Photos from Unsplash

Educational Screen Use

- Educational apps like Duolingo and YouTube channels like Crash Course Kids can enhance learning
- Exposure to new skills, languages, and problem-solving
- Interactive learning can be more engaging and meaningful compared to passive consumption



Non-Educational Screen Use

- Apps like Roblox are used often by kids and are designed for entertainment and engagement rather than learning
- TikTok and YouTube Shorts are designed to make users doom-scroll, reducing attention span and critical thinking
- Excessive use of these overstimulating forms of content can make it difficult for kids to relax, increasing impulsivity and reducing ability to learn and focus





Photos from Unsplash



What Are Kids Missing Out On?

Outdoor Play: Physical health and social interaction
Hands-On Learning: Deeper understanding and comprehension of material
Face-to-Face Interactions: Younger children cannot connect what they see on screens to real-life social cues

Photo from Unsplash

Finding the Balance

When used wisely, screens can be helpful, engaging, and fun. But is it worth the risk?



Pros of Screen Time

- Educational apps/videos can enhance learning and provide individualized learning
- Some digital games encourage collaboration and strategy
- Online platforms provides access to resources

Cons of Screen Time

- Overuse of screens leads to decreased attention spans and difficulty focusing
- Children miss out on realworld experiences and skillbuilding
- Non-educational screen time reduces the ability to self-regulate screen use



So What Should Educators Do?

The most important thing to do as educators is to educate! By guiding students toward intentional screen use, teaching about educational vs harmful screen time, we can help restore the balance between digital time and real-world experiences.

Overstimulating TV Shows VS Low Stimulation TV Shows

Effects and Consequences







Concerns with Modern TV Shows

- Cocomelon and similar content like Youtube Kids can use rapid frame changes (scenes lasting only 2–3 seconds), excessive panning and overstimulating visuals. (Travers, 2024)
- Some articles and studies published by the National Library of Medicine, ScienceDirect, and BMC revealed poor behaviours (tantrums, inability to give up screen time and poor emotional regulation) are associated with excessive screen time in toddlers.
- Effects:
- Reduced attention span (Travers, 2024)
- Difficulty processing information (Sara Arian Namazi & Sadeghi, 2024)
- Struggled with self regulation (Travers, 2024)
- Delayed social skills (Muppalla, 2023)
- Sleep disruptions (Qu et al., 2023)
- Addictive screen habits (Travers, 2024)
- While the consequences of excessive screen time may be less severe for children and adolescents, the articles emphasize that boundaries and limits must be set to ensure that screen time is consumed in moderation and that children and teens learn to maintain healthy relationships with technology.









Perks of Watching Low Stimulating TV Shows

- According to the website, "Parents" recommend older TV shows as they offer slower pacing and interactive storytelling. Some better alternatives to Cocomelon include Little Bear, Miffy's Adventures, Franklin, Curious George, and Arthur (or newer ones like Bluey and Puffin Rock) (Sherri Gordon, 2024) (Flaherty, 2025).
- These shows are regarded as more engaging and less overwhelming, featuring gentler storytelling and relatable principles and lessons. However, even with TV shows that are less overstimulating, it is still important to choose content wisely and consider balancing screen time with activities that promote regular play, reading, and learning experiences.









(Sherri Gordon, 15 low-key shows for toddlers that won't overstimulate them, 2024)

(Flaherty, 'slow TV' is trending: Here's the best low-stimulation shows for toddlers, 2025)

What Can Teachers Do About The Consequences of Excessive Screen Time?

Show Balanced Screen Time within the Classroom by:

- Using hands-on learning approaches and using tech tools with purpose.
- Incorporate movement-based activities to keep students engaged and active within the classroom.
- Teach projects that require real-world exploration.
- Focus on social-emotional learning (SEL) to improve communication.

Teach Digital Literacy to Students by

- Educating on healthy vs. overstimulating content. Ask students to reflect and connect with themselves and how their body/mind may feel after too much screen time vs how they feel after playing on the playground or reading.
- Discuss how overstimulation can affect our focus and emotions and how to self-regulate (taking breaks, getting outside for fresh air, drinking water, playing with a friend, doing a hobby you enjoy).

Photo taken by Ryunosuke Kikuno

Sourced by Unsplash











Short-Form Content: Dopamine Addiction



short viewing time (low commitment)

highly diversifiable and personalized

low attention requirement = brain break

Jiang, L., & Yoo, Y. (2024). Adolescents' short-form video addiction and sleep quality: The mediating role of social anxiety. *BMC Psychology*, *12*(1), 369. https://doi.org/10.1186/s40359-024-01865-9



Coleman, T., & updated, T. W. U. last. (2024, February 14). *"TikTok brain" may be coming for your kid's attention span*. Theweek. https://theweek.com/health-and-wellness/1025836/tiktok-brain-and-attention-spans



Photo Taken By: Arman Dz Sourced From: OpenVerse

Problems with Instant Gratification

young people are finding it harder to engage in activities which don't offer instant reward

decrease in patience for longer, more complex tasks

a 2019 study published in <u>Nature</u> <u>Communication</u> suggests our "collective attention span" may be shortening

Coleman, T., & updated, T. W. U. last. (2024, February 14). *"TikTok brain" may be coming for your kid's attention span*. Theweek. https://theweek.com/health-and-wellness/1025836/tiktok-brain-and-attention-spans



Photo Taken By: Krzysztof Hepner Sourced From: OpenVerse

What does this mean for teachers?

Students may struggle with focus and perseverance

Addiction to short-form content is linked to sleep problems, which can have an adverse effect on health

Teachers need to place a larger focus on engagement and develop activities to promote problem-solving skills within their students

Emphasize education surrounding media, allowing students to help themselves

Coleman, T., & updated, T. W. U. last. (2024, February 14). "*TikTok brain*" may be coming for your kid's attention span. Theweek. https://theweek.com/health-and-wellness/1025836/tiktok-brain-and-attention-spans Jiang, L., & Yoo, Y. (2024). Adolescents' short-form video addiction and sleep quality: The mediating role of social anxiety. *BMC Psychology*, *12*(1), 369. https://doi.org/10.1186/s40359-024-01865-9 *Tiktok brain: Can we save children's attention spans*? (2024, March 6). Richmond Journal of Law and Technology. https://jolt.richmond.edu/2024/03/06/tiktok-brain-can-we-save-childrens-attention-spans/





Monitored VS Unmonitored Screen Time

П





(1) Common Concerns Relating to Unmonitored Screen Time

- "In a case-control study by Chonchaiya and
 Pruksananonda, children who watched TV alone had 8.47
 times more probability of having a language delay"
 (Korres et al.).
- A Canadian research study done in 2020 found that out of the parents polled who allowed their children to watch YouTube unsupervised, "nearly half say their child has encountered inappropriate videos there" (Auxier).
- Hearing inappropriate adult-directed programs can "affect negatively a child's language usage and cognitive executive skills...resulting in a poorer vocabulary" (Hanigan.).
- Social Media brings this concern along with the danger of bullying and harassment.

Photo Taken by: Kelly Sikkema Sourced From: Unsplash





Photo Taken by: Ivan Zimin Sourced From: Unsplash



Photo Taken by: Nils Huenerfuerest Sourced From: Unsplash

Benefits of Monitored Screen Time

Adult-Directed Screen Time: Parents/Guardians are supervising the content and the duration of the screen time. Co-Viewing: Parents/Guardians are consuming the content with the child(ren), allowing for dialogue during the exposure.

- The most optimal exposure happens through co-viewing (Korres et. al.).
- Co-viewing allows Parents/Guardians to support the content with answers to questions and stimulating conversations.
- Both forms of monitoring help Parents/Guardians see what their child(ren) is/are watching.
- Both forms of monitoring help Parents/Guardians control the duration of exposure.



What We Must Consider

- We cannot expect parents and guardians to handle screen time perfectly.
- While we know that co-viewing is preferable, it is not always possible.
- Judgement is not productive.



Photo Taken by: Renee Mitchell Sourced From: Unsplash



"Laptop PNG," from Vecteezy

Main Concerns



Image of cell phone from PNGTree. Image of boy on tablet by Kelly Sikkema on Unsplash.



As technology becomes more advanced and accessible, we tend to spend more time online and neglect our other responsibilities, (Barbosa, C. & Pedro, L., 2019).



It has been estimated that the average daily screen time usage totals to about 492 minutes per day, which is equivalent to the recommended amount of sleep for adults, (Barbosa, C. & Pedro, L., 2019).



Our use of online media may affect our time orientation. Time orientation is the way we perceive time, (Barbosa, C. & Pedro, L., 2019).



In the United States, research has shown that an increase of screen time (specifically texting, video chatting, watching videos, and playing video games) can lead to an increase of suicidal behaviors in children aged 9 to 11, (Chu, J., et al, 2023).



Research has shown that many adolescents in the United States are failing to reach the required amount of sleep per night due to excessive screen usage, (Twenge, J. M., Krizan, Z., & Hisler, G., 2017).

Encourage Play!

By encouraging kids to play games and puzzles, we can limit non-educational screen time and encourage socializing and hands-on learning.

Practice Mindfulness!

Practicing mindfulness is a simple way to help improve mental health. By doing this with kids, you may be able to mitigate the harmful effects of screen time.

Be Social!

Encourage kids to build up their social skills by having face-toface conversations and encouraging them to interact with their peers.

Go Outside!

Excessive screen time often takes away from outdoor time. Taking kids outside helps them learn more about the world around them.

Get Active!

Encourage kids to build healthy habits and participate in physical activities. Healthy habits can include; getting enough sleep, exercising, eating healthy, and more.

Teach Empathy!

Being online allows kids to hide behind their screens. It is important to teach kids to have empathy and to build and maintain healthy relationships

Panjeti-Madan, V. N., & Ranganathan, P. (2023). Impact of Screen Time on Children's Development: Cognitive, Language, Physical and Social and Emotional Domains. *Multimodal Technologies and Interaction*, 7(5), 1-30. <u>https://doi.org/10.3390/mti7050052</u>

And Most Importantly...

Educate your students about safe use of technology!

It is almost inevitable that kids will have access to non-educational technology at some point in their daily lives. As much as we want to minimize this, we do not have a say in their actions outside of the classroom. The most important thing that educators can do is to ensure that their students know how to protect themselves online. Whether this be protection for privacy purposed, avoiding cyber-bullying, avoiding scams, avoiding predators, or anything else,

educators should strive to teach students to be safe online and to treat everyone with respect.

References

Coleman, T., & updated, T. W. U. last. (2024, February 14). *"TikTok brain" may be coming for your kid's attention span*. Theweek. https://theweek.com/health-and-wellness/1025836/tiktok-brain-andattention-spans

Jiang, L., & Yoo, Y. (2024). Adolescents' short-form video addiction and sleep quality: The mediating role of social anxiety. *BMC Psychology*, *12*(1), 369. https://doi.org/10.1186/s40359-024-01865-9

Tiktok brain: Can we save children's attention spans? (2024, March 6). Richmond Journal of Law and Technology. https://jolt.richmond.edu/2024/03/06/tiktok-brain-can-we-savechildrens-attention-spans/ Brooke Auxier, M. A. (2020, July 28). *2. parental views about YouTube*. Pew Research Center. <u>https://www.pewresearch.org/internet/2020/07/28/parental-views-about-youtube/</u>

Hanigan, A. (2024, September 26). The effects of screen time on children: The latest research parents should know - choc - children's Health Hub. CHOC. <u>https://health.choc.org/the-effects-of-screen-time-on-</u> <u>children-the-latest-research-parents-should-know/</u>

Korres, G., Kourklidou, M., Sideris, G., Bastaki, D., Demagkou, A., Riga, M., Gogoulos, P., Nikolopoulos, T., & Delides, A. (2024, March 19). Unsupervised screen exposure and poor language development: A scoping review to assess current evidence and suggest priorities for research. Cureus.

- OSF Healthcare. (2024). Kids' Screen Time: How Much is Too Much? <u>https://www.osfhealthcare.org/blog/kids-screen-timehow-much-is-too-</u> <u>much/#:~:text=The%20Centers%20for%20Disease%20Control,S</u> <u>even%20and%201%2F2%20hours</u>
- Kardefelt-Winther, D. (2017). *How Does the Time Children Spend Using Digital Technology Impact Their Mental Well-Being, Social Relationships, and Physical Activity?* UNICEF Office of Research

References:

Barbosa, C. & Pedro, L. (2019). Time Orientation and Media Use: The Rise of the Device and the Changing Nature of Our Time Perception. In L. Oliveira, *Managing Screen Time in an Online Society* (pp. 78-98). IGI Global Scientific Publishing. <u>https://doi-org.ezproxy.library.uvic.ca/10.4018/978-1-5225-8163-5.ch004</u>

Chu, J., Ganson, K. T., Baker, F. C., Testa, A., Jackson, D. B., Murray, S. B., & Nagata, J. M. (2023). Screen time and suicidal behaviors among U.S. children 9–11 years old: A prospective cohort study. *Preventive Medicine*, *169*, 107452–107452. <u>https://doi.org/10.1016/j.ypmed.2023.107452</u>

Panjeti-Madan, V. N., & Ranganathan, P. (2023). Impact of Screen Time on Children's Development: Cognitive, Language, Physical, and Social and Emotional Domains. *Multimodal Technologies and Interaction*, 7(5), 1-30. <u>https://doi.org/10.3390/mti7050052</u>

Twenge, J. M., Krizan, Z., & Hisler, G. (2017). Decreases in self-reported sleep duration among U.S. adolescents 2009–2015 and association with new media screen time. *Sleep Medicine*, *39*, 47-53. <u>https://doi.org/10.1016/j.sleep.2017.08.013</u>