

# THE SMART ZONE

MONTHLY NEWSLETTER



## Insight on Smartphones, Students, and Social Interactions.

Over the past several years, a steady decline in students' test scores has been observed in many developed countries, including the United States. The sharp decline started around 2012, right when smartphones and social media started to dominate teenagers' lives. A new study from the Program for International Student Assessment (PISA) found a direct link between phone usage and a drop in academic performance. PISA assesses the math, reading, and science skills of 15-year-olds in nearly 80 countries every three years.

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The study's findings indicate that approximately two-thirds of U.S. students are distracted by their digital devices, with 54 percent citing distractions from peers using similar devices. Students who reported feeling distracted by their classmates' digital habits scored lower in math. Notably, students who spend five to seven hours daily on their phones scored an average of 49 points lower in math compared to those who limit their phone usage to an hour or less.

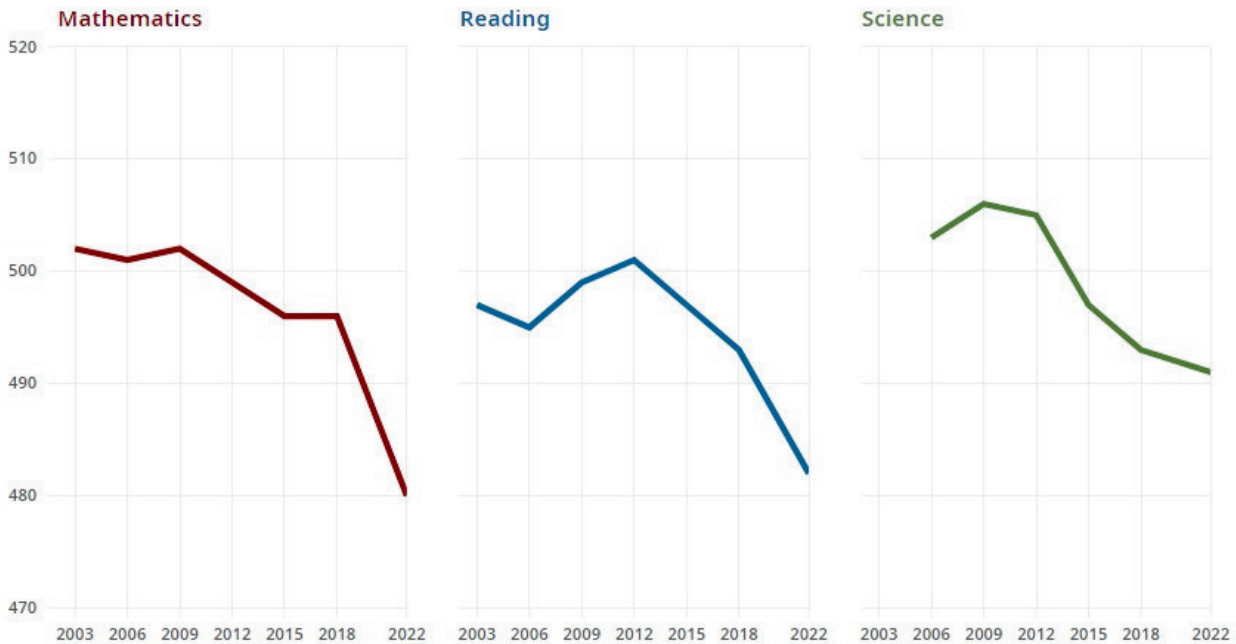
**DID YOU KNOW...**  
**that 20 points in PISA tests is roughly equivalent to one year of schooling.**

The report draws a strong link between these distractions and reduced academic achievement. The findings related to math were especially striking, revealing that, on average, students who experience distractions from peers using digital devices in math classes scored 15 points lower in mathematics than those who reported that this never or almost never happens. This represents the equivalent of three quarters of a year's worth of education, even after accounting for students' and schools' socio-economic profile.

The findings underscore the need for effective strategies to minimize digital device-related distractions in schools, as highlighted in the report.

### Trends in mathematics, reading and science performance

PISA test scores, OECD average



Source: OECD (2023), [PISA 2022 Results \(Volume I\): The State of Learning and Equity in Education](#).

Many schools and districts in the United States have restricted student smartphone use during the school day because the devices have become an enormous distraction in the classroom. A Common Sense Media report found that teenagers receive a median of 273 notifications a day, with nearly a quarter coming in during school hours.

Likewise, research has identified the mere presence of a smartphone as a source of distraction. Students in presence of a turned-on smartphone performed poorly in neuropsychological tests compared to students that did the tasks without the presence of a smartphone.

# INSIGHTS FROM A CLASSROOM

## A TEACHER'S PERSPECTIVE

I have been a teacher for 15 years. I have my Masters in Elementary education with a concentration in human development. In those years I have taught Pre-K to 2nd grade and nine of those years have been in prek4. Teaching is a challenging profession, but I do feel that the introduction of smart devices on young children has made a difference in how children learn, their ability to pay attention, and their emotional regulation.



**For the nine years I have taught PreK the curriculum has pretty much stayed the same, but the children's ability to do the work has changed.** I see a huge decrease in fine motor skills. Where small children used to spend their free time playing outside, drawing pictures, painting, digging in the dirt, and other hands-on activities, they now are playing a lot more games on smart devices. The students come in with much weaker grip and a lot less experience doing activities that require fine motor skills. I have referred more children out for occupational evaluations in the last few years than in my first few years of teaching.

I have also seen a decrease in students' attention span and ability to do the work we are asking them to do. Obviously, I cannot know for sure, but I would assume this is also linked to use of smart devices. The students are so used to being constantly entertained and things changing every few minutes on the shows they watch and the games they play, that they can no longer sit still to listen to a story or focus on a classroom task. **Children are struggling to sit still on the carpet and in their chairs. I even see a lot more kids falling out of their chairs in the classroom.**

**The aspect that I think has been affected the most is the social-emotional learning.** I know there are many studies that point to an increase in anxiety in young children due to smart devices. I feel this stems from the lack of personal connection you get from a device. This was seen the most the year we started back after COVID and the kids were in masks. They were coming off of being at home with a lot of device time to school where they couldn't even see someone's face to be able to read their emotions. Four and five years old are learning how to navigate the world and their feelings. It made it so hard when they couldn't read people's faces. I think this issue is twofold. The child isn't interacting with peers when on a device, so they are not getting the emotional connections they need. Then, also, at home parents are on their own devices more and then not interacting with their children as much. So, everyone's emotional bucket is low. **Kids are having a lot harder time regulating their emotions, and I see more meltdowns.** They also don't have as strong of social skills and conflict resolution as in the past.

As a parent, I too struggle with this. **With all the great ways technology has made our life easier, it has sucked us into needing to be constantly available.** I know that my kids will act up and get annoyed at me if I am checking my emails, or responding to text messages when they are trying to get my attention. The constant notifications and things on my phone suck me in. I have to try hard to disengage. Smart devices are definitely addictive. I definitely am guilty as a parent letting my kids go play a game or watch a show so that I can have some down time to get things done for myself. I think, as a society, we all struggle with this. If we can all make an effort to put the devices down and live in the here and now, we will hopefully help not only ourselves but our kids.

# STUDIES AND RESEARCH ON DIMINISHING FOCUS AND SHORTENED ATTENTION SPAN

Children today are digital natives, having never experienced life without the internet. Raised amidst constant scrolling and jumping from content to content without a second thought, they embody what philosopher Byung-Chul Han describes in his 2021 book 'Non-things.' Han notes that such continuous stimulation leads to a craving for new stimuli, conditioning us to perceive reality as a series of surprising events. This tsunami of information, he argues, agitates our cognitive system, making it difficult to concentrate on any single task.

In this sense, loss of attention is related to a decline in our ability to concentrate. When young people do activities that require "prolonged focus," like reading, they use something called directed attention, a function that begins in the prefrontal cortex, the part of the brain responsible for decision making and impulse control. Directed attention is the ability to inhibit distractions and sustain attention and to shift attention appropriately.

**“THE AVERAGE ADOLESCENT OR YOUNG ADULT FINDS IT DIFFICULT TO STUDY FOR 15 MINUTES AT A TIME; WHEN FORCED TO DO SO, THEY WILL SPEND AT LEAST FIVE OF THOSE MINUTES IN A STATE OF DISTRACTION.” DR. LARRY ROSEN, CALIFORNIA STATE UNIVERSITY**

Digital media is designed to be engaging and often provides constant stimulation. But when we receive information in large quantities, it stops being meaningful. Digital media encourages multitasking and rapid task-switching and, while this might seem efficient, it actually reduces the quality of our attention. Each time we switch tasks, there is a cognitive cost, which reduces our ability to concentrate deeply on a single task.

**A NATIONAL STUDY OF TEACHERS CONDUCTED BY COMMON SENSE MEDIA REVEALED THAT 71% OF TEACHERS SAY THAT STUDENTS’ MEDIA USE IS HURTING THEIR ATTENTION SPANS.**

## TEDx Talk

**SOCIAL MEDIA "TELLS US THAT IT'S MORE IMPORTANT TO BE UPDATED ABOUT EVERYTHING, THAN TO BE DEEPLY INFORMED ABOUT ANYTHING"**

**“SOCIAL MEDIA IS FREE, BECAUSE YOU PAY FOR IT WITH YOUR TIME”**

**Watch** this TEDx [talk](#) 'The Battle for Your Time: Exposing the Costs of Social Media' by Dino Ambrosi from Project Reboot, who reflects on the amount of time and attention we give to technology.

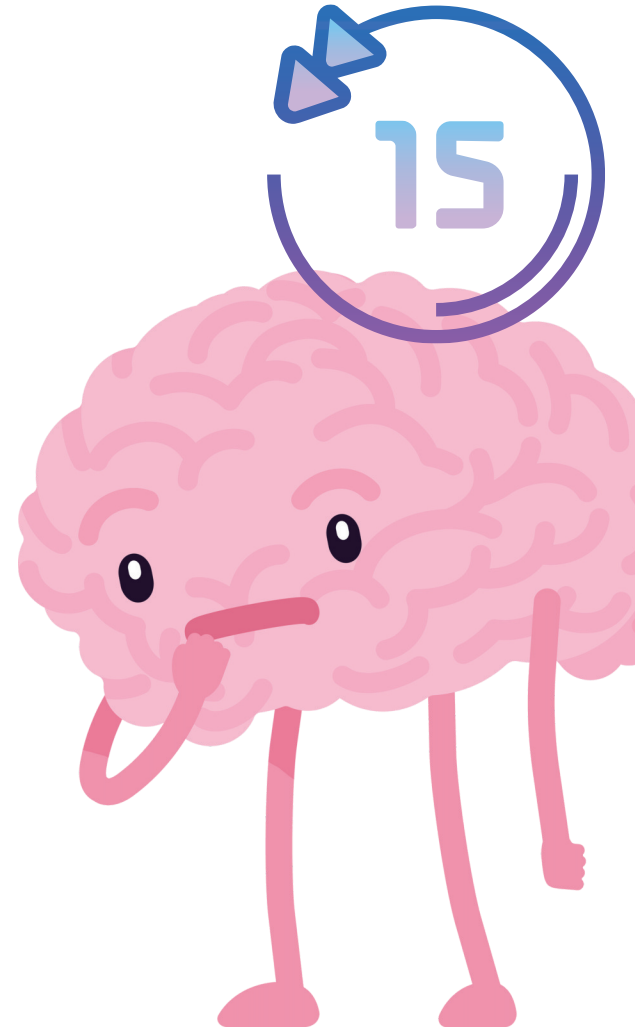


## TIKTOK BRAIN

Though research on TikTok usage is still limited, health professionals, educators, and parents have been noticing a worrying trend when it comes to children's ability to focus for an extended period of time. Attention spans appear to be on the decline, and experts say too much screen time—particularly on TikTok—is at least partially to blame.

TikTok hosts an endless stream of bite-size videos, delivering entertaining content in as little as 15 seconds. Young people who binge-watch short-form content like TikTok or Instagram Reels, or YouTube Shorts find it harder to participate in activities that don't offer instant gratification.

Children often struggle with using directed attention due to the fact that the prefrontal cortex, which is crucial for this type of focus, does not fully mature until around the age of 25. The ever-changing environments on platforms like TikTok do not demand sustained attention. As a result, if children's brains grow accustomed to these rapid shifts, they may find it challenging to adjust to non-digital activities that progress at a slower pace, where constant stimulation is not the norm.



## INSIGHT FROM A SCHOOL COUNSELOR



I see the kids struggling with HOW to make conversations. **They don't know how to talk out a problem or even know when to do it.** Talking out issues at school isn't always ideal when there is no privacy, and you need to get to classes so you don't necessarily want sensitive topics raised there.



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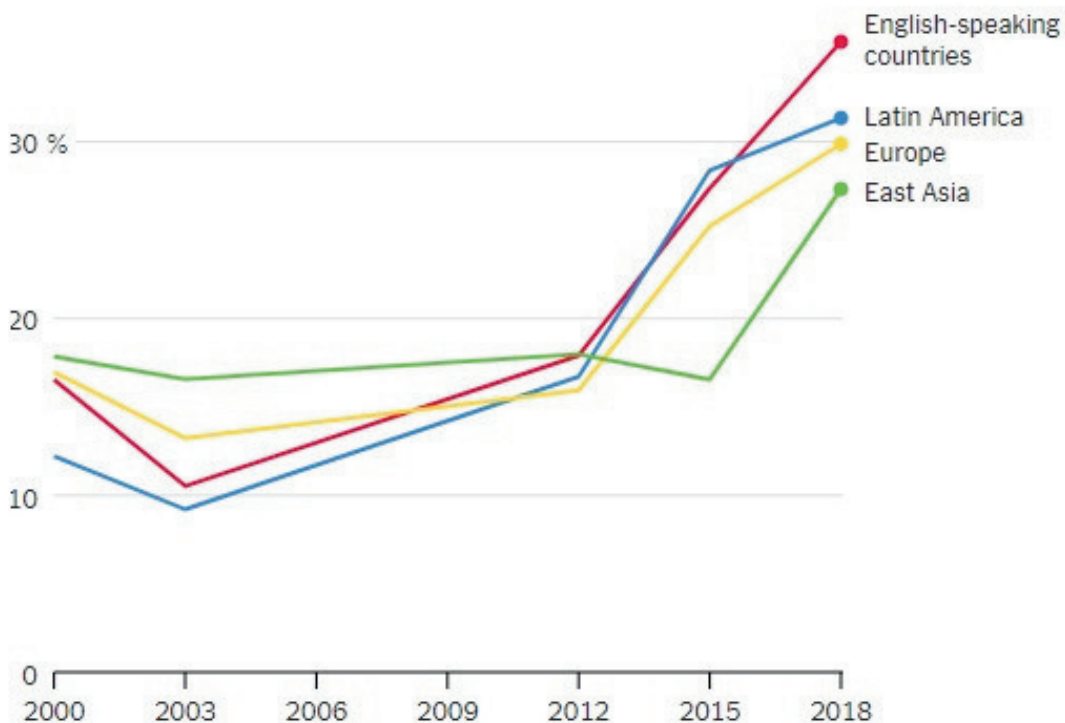
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# SCHOOL LONELINESS AND TEENS AROUND THE WORLD

The ease of digital interaction can sometimes replace more meaningful, supportive relationships with superficial connections. While students may have numerous online contacts, these relationships often lack the depth and support found in real-life interactions, leading to a sense of loneliness despite being "connected."

## Lonely at School

The share of students reporting high levels of loneliness at school has increased sharply since the early 2010s.



By The New York Times | Note: English-speaking countries include Australia, Canada, Ireland, New Zealand, United Kingdom, United States. Source: "Worldwide increases in adolescent loneliness" by Jean M. Twenge, Jonathan Haidt, et al.

Loneliness represents a significant and critical developmental challenge during adolescence. To cope with this issue, individuals adopt various strategies. Notably, problematic cell phone use, even among family members, adversely impacts direct interpersonal interactions, resulting in antisocial feelings. Researchers reported that the percentage of daily cell phone usage duration was higher in adolescents feeling lonely and addicted to mobile phones. Furthermore, addiction to smartphones has been linked to behavioral issues such as poor social skills, low self-confidence, and diminished self-esteem. School loneliness, recognized as the opposite of school connectedness and belonging, was the focus of research by American Psychologist Dr. Jean Twenge.

This research aimed to gauge teenagers' experiences of loneliness within the school environment. To obtain data, the team utilized the International Student Assessment (PISA) dataset, which encompasses responses from over a million teenagers across 37 countries worldwide.

Researchers revealed a significant cultural change in teens' school loneliness beginning in 2012 (Twenge et al., 2021). According to the researchers, 2012 was the first year when most Americans owned a smartphone leading to daily social media use. Before 2012, the trends had stayed relatively flat. But between 2012 and 2018, nearly twice as many teens displayed high elevated levels of school loneliness, an established predictor of mental health issues.

Feelings of loneliness and 'being left out' significantly increased following the introduction of the iPhone, with kids' ability to witness, constantly, how much fun everyone else was (or at least seemed to be) having.

Twenge notes that correlation does not imply causation, yet she presents a compelling argument that children who spend more time on social media, rather than engaging in activities outside, tend to be less content compared to previous generations, as well as their current-day counterparts who spend less time in front of screens and more time experiencing life directly (or 'irl' - in real life). This includes activities such as working a job or socializing with friends in person. Surprisingly, engaging in activities like doing homework instead of browsing social media also appears to contribute to higher levels of happiness among kids.



## PRUNING

**"I am the true vine, and my Father is the vinedresser. Every branch in me that does not bear fruit he takes away, and every branch that does bear fruit he prunes, that it may bear more fruit" John 15:1-2**

The biblical definition for pruning outlines it as a method for removing what is not necessary. This means there are things that can be attached to our lives that are not beneficial. Some examples of these include sin, bad habits, and negative relationships. Just as a gardener meticulously trims away the excess branches on a plant to allow it to grow healthy and strong, we too must remove anything that is not in line with God's plan.

Are there strategies you can use to help your child recognize relationships that lack meaningful connection and are not fruitful friendships?

## THE SMART PLEDGE

By taking the Smart Families pledge to delay giving your child a smartphone until after 8th grade, you are making a commitment to safeguarding your child's brain development, preserving the innocence of their childhood, and ensuring their mental and emotional well-being. You also give strength to parents around you to join our unified community.



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