



The Lockdown Paradox: Why COVID-19 Policies Did not Lead to Excessive Gaming

Executive Summary

During the COVID-19 pandemic, many people worried that lockdowns and school closures would lead to excessive video gaming, potentially turning it into a health concern. Previous studies, based mostly on what people said about their gaming habits, seemed to support this fear. However, our research, which analysed a massive amount of actual gameplay data from around the world, tells a different story. We found that, surprisingly, government lockdowns didn't make people spend more time gaming. The only exception was that school closures led to more people playing video games, but it didn't make individual gamers play for longer hours. The study challenges the common belief that pandemics and lockdowns lead to excessive gaming and suggests that we should be cautious before jumping to conclusions.

Implications

- 1) The fear that the pandemic's lockdown policies would universally lead to excessive gaming and potential gaming addiction appears to be largely unfounded. This could influence future public policy, as it suggests that immediate measures to limit gaming during lockdowns may not be necessary, at least from the standpoint of time spent gaming.
- 2) The significant change in gaming habits we observed — an increase in the number of gamers during school closures — suggests that young people are particularly influenced by these policies but does not indicate a need for alarm.

Background: The COVID-19 Pandemic and Lockdowns

The COVID-19 pandemic brought the world to a standstill. To control the virus, governments took drastic measures, from enforcing mask mandates to closing down schools. While these "lockdown policies" were designed to protect public health, they also sparked debate about potential side effects on our day-to-day lives.

One major concern has been that people, especially kids, would turn to video games as an escape, leading to unhealthy amounts of screen time. Previous research seemed to back up this fear, suggesting that heavy or addictive gaming could be a fallout of lockdowns and school closures. However, past studies primarily relied on people self-reporting how much they played, and most were limited to single countries. There's also debate among experts: some argue that increased gaming might be harmful, leading to addiction-like behaviour. Others see a silver lining, suggesting that gaming could be a social outlet, helping people to cope with pandemic-induced stress.



Another challenge is that “excessive gaming” is not well-defined, and what might be too much gaming for one person or situation might not be for another. In this study, we did not try to define excessive gaming, as we are focused on changes in playtime.

The debate about whether or how lockdowns affect gaming is more than academic curiosity. It has real-world implications. On one side, some think that the uptick in gaming could have led to mental health issues. On the other hand, gaming is seen as a possible stress reliever and a way to stay socially connected when we cannot meet in person.

Approach: Unveiling the Impact of Lockdowns on Gaming

Our study aims to settle the debate by looking at hard data—actual hours spent gaming—in multiple countries. We explore the impact of different types of lockdowns like school closures, work restrictions, and travel bans on gaming behaviour. We are asking three key questions: How much are people playing overall? How many people are gaming in different places? And how long does the average person game for?

Studies have shown that changes in gaming habits can affect our mental well-being. If we can prove that lockdowns have significantly altered how much we game, then it is possible that mental health has also been affected. Importantly, we do not know how, but at least this means there is support for exploring this in detail. On the flip side, if there's no change in our gaming behaviour due to lockdowns, it is unlikely that these policies are damaging our well-being in the ways some experts suggest.

We are using data provided by Unity Technologies, the makers of one of the most popular game engines globally. Their information spans an incredible 251.88 billion hours of playtime across 184 countries, making it one of the most comprehensive datasets ever used to study gaming habits.

To understand how different lockdown policies might affect gaming, we're pairing this with day-by-day policy data from the OxCGRT database, which monitors lockdown measures in the same 184 countries. We're interested in eight types of lockdown policies, from school and workplace closures to travel bans.

We've developed a series of models to assess how these policies have influenced gaming in different ways. These models account for things like how strictly a policy is enforced and whether it's targeted to a specific area or a whole country.

Results: School Lockdowns Increase Overall Playtime

Between January 1, 2020, and December 5, 2021, the dataset contains 251.88 billion hours of global gaming time. That's an average of 357.28 million hours per day! And that is just a part of the total amount of time we spend playing games globally.

We examined how different lockdown policies impacted our gaming habits. School closures were the only policy that significantly influenced how much we game. In areas where schools closed, both the total playtime and the number of people playing video games increased.

We found that other types of policies, like workplace closures or travel restrictions, had little effect on the amount of time people spent gaming or the number of gamers. In a nutshell, it seems like school closures get kids—and probably some adults—gaming more than usual.

We also explored whether these policies made individuals play for longer periods. Surprisingly, no specific policy was found to make people game for longer than usual. In fact, even school closures, which increased the total playtime and number of gamers, did not extend the length of individual gaming sessions.

All the policies we studied were linked to increases in gaming time or player numbers; none led to a decrease. So, at least in terms of gaming, lockdown policies seem to be more of a boost than a bust. However, our study found minimal differences in gaming trends over time when other factors were taken into account. This suggests that once you set aside the impact of very particular policies like school closures, people's gaming habits are pretty stable.

More Gamers During Lockdown, Not Longer Gaming

Contrary to what you might believe—that all lockdown policies make us game more—our study found that only school closures significantly increase both the time spent gaming and the number of gamers. Other policies, such as workplace closures or travel restrictions, didn't have much effect.

Even though closing schools increased the total time people spent gaming, it didn't make individuals play for longer durations. So, while more kids (and adults) may have started playing games, they aren't necessarily playing any longer than they did before.

Since our study is observational, we cannot say for sure why this is happening. One possibility is that with schools closed, kids simply have more free time to explore new games. Alternatively, existing gamers might just be switching games more often, which is something our data cannot track.

While average playtime per user did not change much, it is possible that the types of players did. Maybe more casual gamers started playing a little, while a small group of avid gamers started playing a lot more. If that's the case, these changes could cancel each other out when you look at the overall average.

Importantly, workplace closures were the only non-school-related policy to have any noticeable impact, although it was much smaller than the effect of school closures. Social gathering restrictions did not seem to impact gaming at all, which is surprising given that many people assumed gaming would become a new social outlet during lockdowns.

In summary, our results do not support concerns that lockdowns could lead to gaming addiction. The only significant change we saw—more people gaming when schools closed—didn't translate into longer gaming sessions. So, fears of lockdowns turning us into game addicts don't seem to hold water.



Our findings challenge a lot of assumptions about how social policies impact gaming behaviour. School closures stand out as the only policy with a noticeable impact, but even that doesn't mean individuals are gaming more intensely. In the grand scheme of things, our gaming habits appear to be pretty resilient to change.

Future Research

While our study provides important insights, it also raises new questions that warrant further investigation. For example, the dataset used is global but not necessarily representative of all demographics. Future research could explore how lockdowns affect gaming in specific age groups, ethnic communities, or socio-economic statuses. Furthermore, we touched upon the possible links between gaming and mental well-being. However, our study was not designed to measure this directly. Subsequent research could look at the potential positive and negative impacts of the increased prevalence of gaming during school closures. By addressing these gaps, future research can build on our findings to offer a more comprehensive understanding of how social policies like lockdowns affect gaming behaviour and what that means for society at large.

Recent reports

David Zendle, Catherine Flick, Darel Halgarth, Nick Ballou, Simon Demediuk and Anders Drachen: *Cross-cultural patterns in mobile playtime: an analysis of 118 billion hours of human data*. *Sci Rep* 13, 386 (2023). <https://doi.org/10.1038/s41598-022-26730-w>

David Zendle, Catherine Flick, Sebastian Deterding, Joe Cutting, Elena Gordon-Petrovskaya, and Anders Drachen: *The Many Faces of Monetisation: Understanding the Diversity and Extremity of Player Spending in Mobile Games via Massive-scale Transactional Analysis*. *ACM Games* 1, 1, Article 4 (2023). <https://doi.org/10.1145/3582927>

Zendle, D., Flick, C., Gordon-Petrovskaya, E., Ballou, N. Xiao, L. Y. & Drachen, A. (2023): No Evidence that Chinese playtime mandates reduced heavy gaming in one segment of the video games industry. *Nature Human Behavior*. <https://doi.org/10.1038/s41562-023-01669-8>

Anders Drachen. 2022: *Games-based Collaboration as a Driver for Massive-Scale Mental Health Research*. In: *Child and Adolescent Mental Health*, 28(1). <https://doi.org/10.1111/camh.12617>

To quote

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