

The effects of Covid-19 are not ones that can be easily overlooked, from overflowing hospitals, lost loved ones, mask mandates and a new opinion on how close you want someone standing next to you, the past 3 years have impacted everyone and everything. Education is no exception, especially for those in K-12, where online learning has left many students behind. The learning gap was an issue already present before the pandemic hit, however this gap has only grown since the start of Covid. This gap highlights the deviation of what students were expected to have learned by a certain point versus where they actually fall now (Geith et al.). The main influences contributing to this growing learning gap include socioeconomic class, race, lack of resources and the switch to online learning.

One of the main themes seen with the growing learning gap during the covid-19 pandemic was the shift from in person learning to online. Remote learning encompasses several of the other themes, which is why it is one of the most notable. From lack of personal interaction, inability to participate and difficulty to learn online, this switch has quickly led to a growing gap in K-12 student achievement. One of the main difficulties with online learning is that students have a harder time actually understanding and retaining the material. It was found that in only a 8 week lockdown, students on average had a learning loss of roughly 3 percentile points, in other words  $\frac{1}{5}$  of a school year (Engzell et al.). Students were also likely to not grow as much during their academic year and were more likely to lose more of their learning gains during their online learning (Kuhfeld et al.) A big factor in this is engagement, a K-2 study found that kids were not completing assignments, staying focused on the lesson, parents were having trouble providing assistance to their kids or that parents were doing the childrens work for them (Timmons et al.). Research from 2020 study predicted that students returning in the fall would start with roughly 63-68% of the learning gains in reading and 37-50% of the learning gains in mathematics

compared to usual school year (Kuhfeld et al.) These findings imply that when students are unable to learn in person, they make small progress in their curriculum and that losses are most likely larger in areas with weaker infrastructure and longer lock downs.

The next big theme contributing to the learning gap caused by covid is socioeconomic class. For those specifically from poor socioeconomic backgrounds, having to switch to online widened the learning gap, with research finding that in the US, those from working class, 41% do not own a laptop or computer whereas it is only 7% for those in upper/middle class (Goudeau et al.). Those in poorer communities and rural areas also have less access to the internet and areas where the internet isn't provided, as well as places not suitable to do homework, lack of books and lack of devices (Gupta et al, Poletti). Another issue is that teachers are having to rely on parents to teach their children, and those low-income are typically in the working class and cannot afford to take time off to support their kids academically (Bailey et al.). There are also factors such as unequal support from schools, unequal familiarity with academic knowledge/skills and divide between classes and their available resources (Goudeau et al.). Those with low-income also lack the resources to pay for tutors for their kids and are more likely to attend public schools, where those schools may not have the resources to help lessen the gap that online learning caused (Bailey et. al).

Another theme associated with the learning gap during covid-19 pandemic is one's race or ethnicity. When it came to online learning during the pandemic, a study found that 10.1% of students did not have adequate access to either a computer or internet, with that access varying based on parental race/ethnicity, with up to 35.5% for students of black parents versus 1.9% for students of asian parents (Friedman et al.). Students of African-American and latinx and background also disproportionately lacked necessary access and support from their schools, with

40% of african-americans and 30% of latnix students having no online learning versus the 10% of white students (Goudeau et al.). Studies have also found that schools of mainly black and hispanic students are falling behind in engagement, with only 60-70% logging in daily. Learning loss is also greater for these races,with black students falling behind up to 10.3 months and hispanic students falling behind 9.2 months versus the average seven months (Dorn et al.).

Citations:

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