

Scientists in Asia resumed work far quicker than Western counterparts, international COVID lockdown study shows

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Researchers in China, Japan, and Singapore were able to resume research much quicker than their counterparts in the US and Europe after the first COVID lockdowns, results of a new international survey

suggest.

Published [open access](#) in the peer-reviewed journal *Science and Technology of Advanced Materials*, the findings of the "Survey on the effects of the COVID-19 pandemic on research activities of materials scientists," which also included a series of podcasts with eminent experts, highlight how severe the impact of lockdowns affected researchers internationally.

33% of respondents had to shut down all equipment.

The outcomes were not uniform internationally however, as whilst labs in the UK and parts of the U.S., Spain, and India were not accessible for the whole of the first lockdown, [material scientists](#) in Asian countries were able to access labs within one to two months after the first lockdown.

The conclusions—analyzed by a multidisciplinary set of international experts from institutions including University of Electro-Communications in Tokyo, University of York UK, and publishers Taylor & Francis—paint a picture of the lockdowns catching many institutions off guard.

- 54% of scientists reported that theirs were not prepared or took considerable time to react
- and only 44% had contingency plans in place.

This led to additional issues, such as 57% of respondents not receiving mental health support from their institution. In terms of mental health, 40% felt isolation throughout the initial lockdown.

Overall, though, lead author Professor Adarsh Sandhu, from University of ElectroCommunications, states the survey shows a "resilient and

adaptive" response from the community.

"The survey showed the materials science community to be resilient and adaptive to overcome limitations imposed by restrictions to mobility as exemplified by the proposal for 'robot-based hubs' to perform remote chemical synthesis similar to astronomers who use remote control to move massive telescopes located all over the world."

As with the majority of the rest of the world, this scientific community (89% of them) used video teleconferencing to complete their work on a day-to-day basis. Again, like for many worldwide, this was not without its issues. Problems reported included unstable internet (nearly 50% reported this problem), an inability to have spontaneous 'coffee time' style meetings (44%), and 36% stated they suffered from fatigue after many hours of teleconferencing.

The virtual nature of work also saw approximately 64% of respondents attended virtual conferences.

One stark finding of the paper was a clear disparity between senior and junior positions, though.

"Responses from doctoral students highlighted their 'fear' and uncertainty as their work suddenly came to a halt and they worried about their careers," co-author Professor Atsufumi Hirohata, from York's Department of Electronic Engineering says.

"However, grad-students also learnt to move forward by using their time to reassess previous data with a view to publishing papers and planning their research."

The survey was carried out from March to October 2020, and, using a database provided by Taylor & Francis, was completed by 298

respondents located in 35 countries.

"Overall, we hope that the analysis from this survey will enable the global materials science community to learn from each other's experiences and move forward from the unprecedented circumstances created by the pandemic," concludes Ken Kimlicka, Global Head of Chemistry/Physics/Materials Science at Taylor & Francis.

Limitations of the research include 74.8% of respondents being male, and 16.7% of respondents being from India—nearly twice as many as from any other country represented.

As part of the wider study internationally, freely-available, online podcast interviews with eminent materials scientists who shared their local experiences during this period can be found by searching for "The STAM Podcast' on all major providers.

More information: Adarsh Sandhu et al, Global snapshot of the effects of the COVID-19 pandemic on the research activities of materials scientists between Spring and Autumn 2020, *Science and Technology of Advanced Materials* (2021). [DOI: 10.1080/14686996.2021.1894756](https://doi.org/10.1080/14686996.2021.1894756)

Provided by Taylor & Francis

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