



Young researchers back on track

Allowing students to return to their labs and research facilities is crucial for R&D success and the nation's growth

POSTGRADUATE students who need to conduct research on campus were allowed back since Wednesday while certificate, diploma and Bachelor's degree final year and final semester students who need to perform clinical work and practicals can resume their courses between July 1 and Oct 1.

Although online learning will continue until Dec 31, the Higher Education Ministry announced that students who need to be physically present in laboratories, workshops and design studios or need to use specific equipment only available on campus, are allowed back.

Indeed, letting students back into the labs and research facilities is more than just about making sure that they finish their projects and graduate on time. While R&D is no doubt an important component of the country's education system, in times of a pandemic, its contribution extends beyond the economy.

Universiti Malaya (UM) deputy vice-chancellor Prof Dr Noorsaadah Abd Rahman said valuable information gleaned from research helps the government, society, community, businesses and organisations to make informed decisions and take necessary actions.

"One of the purposes of doing research is to gain new knowledge and data, which

can be used to prove a theory or to improve a field of study," she said, adding that knowledge and data are especially important if we are to stay ahead in the current global economy.

Pointing out that it is the researchers in universities who have the skills and knowledge to conduct R&D, Prof Noorsaadah said industries are willing to invest in R&D as it provides them with data to stay relevant and competitive.

"Having knowledge and data will put you ahead of the game. Imagine if you had the formula to make a drug that can cure all kinds of cancer — would this not be very valuable to you and your business? Industries often invest in higher education institutes (HEIs) to fund more R&D activities so that new technology and products for their businesses can be created."

Using the Covid-19 pandemic as an example, Prof Noorsaadah noted that knowledge of stopping the spread of the virus is acquired through R&D.

"To make a vaccine, one has to conduct research on the protein of the virus. Most often, such research is in universities."

Senior Minister Datuk Seri Ismail Sabri Yaakob had earlier this month announced that over 31,000 of postgraduate research programme students, including those tak-

ing their Master's degree and Doctor of Philosophy (PhD), across 462 HEIs nationwide would be allowed back on campus, and many could not be happier.

Glad to be able to resume her research, Universiti Putra Malaysia (UPM) Master in Science of Agriculture Extension candidate Nurul Athira Mohd Affandi, 27, said she would finally be able to access chemicals and materials needed for her work.

"It was difficult to carry out research from home because a large part of my fieldwork had to be prepared in the lab, which has chemicals or materials that are unsafe to use at home," she said.

The pandemic, she said, has made her very particular about cleanliness. She now ensures that her face mask and sanitiser are with her at all times.

"I'll bring my own lab coat when I go back to campus and I will constantly wash and sanitise my hands."

UPM Faculty of Human Ecology Doctor of Philosophy (Consumer Sciences) candidate Cheng Kai Wah, 29, plans to impose some safety measures on himself when he returns to the laboratories.

"I won't be dining out. I'll remind myself not to touch my face and I'll have my mask on at all times. I don't plan on talking much at the workspace.

"If there is a need to communicate with

my colleagues face-to-face, I will ensure there is always at least one metre of social distancing," he said.

Cheng, who is a tutor at his faculty, said not being able to enter the laboratories for the past two months pushed him to face big challenges as a tutor and doctoral candidate.

"It was quite hard to meet and give out questionnaires to my respondents. I had to amend the research design and think of alternatives to continue my project to ensure progression despite the MCO.

"As for tutoring, I had to find a new way to digitise all my teaching materials. My practical experiment sessions were converted into online experiment sessions for my students to follow," shared Cheng who as a student, had never experienced a full online class before.

Technology, he said, is now cemented as a new norm in education.

"During the MCO, I made full use of my time by attending academic webinars to improve my writing, thinking and problem-solving skills, technological knowledge, and intelligence quotient (IQ) and emotional intelligence (EQ) management.

"These improvements are necessary to help me in my postgraduate journey."

Students raring to return to their varsities

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Universiti Sains Malaysia (USM) Molecular Medicine doctoral candidate Lim Chia Chiu, 28, is eager to return to his campus workspace on June 9.

"I prefer the lab because it is the environment that allows me to intensify my focus on work."

Lim promises to "religiously follow" the standard operating procedures (SOPs) issued by USM.

"I will also be preparing my own meals, avoiding crowded areas and planning my experiments to a tee so that other colleagues have a chance to use the lab space.

"The SOPs are not a hassle. It protects lab personnel and we should adapt to the new norm because it creates greater health awareness among the community and society," said the Penangite who's been conducting data analysis, writing, reading and attending free online courses during the MCO.

USM Clinical Pharmacy doctoral candidate Abdulkader Ahmad Bawadikji, 34, from Syria, said he would be very careful when he conducts research at the laborato-

ries.

"It is comforting that USM provides hand sanitisers on campus," said Abdulkader whose research project requires human contact.

Universiti Tunku Abdul Rahman (UTAR) medical imaging doctoral candidate Foo Lee Sze, 24, has been productive during the MCO.

"Initially it was challenging. I could no longer have face-to-face discussions with my supervisors, and I also could not directly access the workstation in the lab for heavy computation work.

"But since then, I have been having discussions with my supervisors through *WhatsApp* and email. They've also helped me set up remote access to our workstation so I can continue my work online," said Foo whose research is mainly focused on data processing and analysis.

Staying at home for a long period of time just focusing on research has been stressful.

"To overcome this, I have been keeping in touch with my friends online. There are also some online non-academic and extra-curricular activities set up by our varsity counselors to help us unwind from the stress," said

Foo.

UTAR Philosophy (Engineering) doctoral candidate Low Jen Hahn, 25, said completing his project at home is just not possible.

"My research, which involves soft antennas and sensors, consists of two parts – simulation and experiment. I can only do the simulations at home, conducting experiments still require the labs in UTAR. Normally one to two months of lab work is required for every research project.

"However, being at home has given me a lot of flexibility. I was able to do literature reviews for my next research topic," he said, adding that his seniors and supervisors were still able to guide him via video meets.

Although Sunway University Psychology doctorate candidate Samira Vafa, 28, from Iran, has managed to adapt well to the new norm of conducting research from home while keeping in contact with supervisors via Sunway's online facilities, she can't wait to start data collection and head back to the laboratory.

"Conducting research from home has its limitations especially in psychological research which is mainly about interacting with human participants to collect data,"

she said.

She, however, has been able to continue working on her project and has even started other online research activities using online tools.

Samira believes that the Covid-19 pandemic enabled researchers to think out of the box and seek new solutions to obtain the desired research goals.

Her initial research project design was face-to-face psychological training for older adults which was supposed to be conducted in public places.

"Due to the MCO, I decided to design an online training protocol for older adults using available online shopping applications which was actually better," she said.

Sunway Psychology doctoral candidate Alyssa Ding Yen Lyn, 29, said she wants to start working in the laboratories again where she can enjoy time in solitude.

"I am able to think better in silence and it gives me greater insights. There are too many distractions at home.

"The bulk of the challenges were from the loss of attention and focus as well as physical data collection delays due to the MCO."

— By LEE CHONGHUI