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The Impact of the COVID-19 Pandemic on Teacher Education in Singapore

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Background

The National Institute of Education (NIE), Singapore, is an institution within the Nanyang Technological University. It has been the only teacher education institution in Singapore for seventy years. The students enrolled in initial teacher preparation programmes are mainly recruited by the Ministry of Education. The programmes offered are the Diploma-in-Education (1 or 2-year programme), Bachelor of Arts/Science (Education) (4-year programme) and Post-graduate Diploma-in-Education (16-month programme). NIE also runs Master's degree and Doctoral programmes. The students enrolled in these programmes come from diverse backgrounds; some are international students too. In addition, NIE supports teachers, school leaders and other educational professionals by offering professional and leadership development programmes and courses. This article will focus on the impact of COVID-19 on our work in initial teacher preparation programmes.

The Impact of COVID-19

The COVID-19 pandemic threatened many countries and Singapore was not spared. In an attempt to control the rapidly spreading disease, the Ministry of Health raised the severity to DORSCON orange and instructed all residents to stay at home from the 7 April, 2020 onwards. Everyone who was not working in the essential services sector could go out only for essential groceries and food. It was known as 'Lockdown' in many countries but in Singapore it was known as 'Circuit Breaker'. As the country prepared to enter this Circuit Breaker, our University was also going to be closed. All employees were instructed to work from home. With this announcement, all faculty and staff had to rush to pack laptops, office documents, reference materials and teaching resources so as to take them home before campus closure.

At that point in time, the Degree classes were still running, albeit approaching the end of the semester. The students were also preparing for their written examinations, which were to be held the following month. Recently enrolled Post-graduate Diploma-in-Education student teachers were in schools for their teaching assistantship (TA), while the rest of the final year students from all programmes were in the midst of their teaching practicum in schools across the island. Against the backdrop of the mounting urgency of a Circuit Breaker, our institution responded immediately to minimise disruptions to teaching, learning and students' graduation.

Teaching and Learning

Teaching and learning had to continue even though there could not be face-to-face tutorials at NIE. Faculty members explored video-conferencing platforms like 'Zoom', 'Webex', and 'Blackboard Collaborate' to teach their students virtually. The University supported by buying licences for 'Zoom' so that the platform was secure and protected, and with no time limit.

All schools in Singapore were also closed on 7 April and students had to stay at home to do home-based learning after that. NIE student teachers who were in schools undergoing their TA and teaching practicum had to continue with their programmes. By then the TA student teachers had completed two out of their four weeks of attachment in their schools. This group of student teachers continued as much as they could. One way was to observe their Cooperating Teachers (CTs), who are teacher-mentors, carry out virtual teaching in their schools. Some helped their CTs source teaching materials or helped supervise students who were physically in schools because there was no support for learning at home. The TA student teachers could not return to NIE for their once-a-week sessions with their tutors so they

carried out their sharing and discussions of their TA experiences via Blackboard Discussion Board or other e-platforms. When they completed their TA, they had approximately eight more tutorials with their tutors. These lessons had to be conducted online. Some tutors preferred to conduct asynchronous lessons while others synchronous ones. Conducting lessons live was the favourite choice among tutors who were teaching methodology courses as it enabled the tutors to model certain teaching strategies, and allowed tutors and the student teachers to interact with each other. Tutors also used the technological platforms to simulate physical group interactions by putting student teachers into virtual breakout rooms.

The final year practicum student teachers were into their sixth week of their 10-week practicum. They had to complete this part of their programme in order to graduate. They spent the remaining part of their practicum virtually, helping with the home-based learning lessons, and some continued to teach their students virtually. Other adjustments also had to be made in the light of these changes. The number of physical observations by school CTs and NIE supervisors was reduced because of the decrease in face-to-face teaching. The practicum period also shortened by a few days when the Ministry of Education announced that schools would start their holidays earlier than usual.

In the meantime, at NIE, the Degree students who were in their last two weeks of their semester attended their lessons at home and had their sit-down examinations cancelled. Some papers were repurposed as continuous assessment which students could do at home and submit for grading. To derive their results for the year, the marks for their various courses were re-computed. The circuit breaker also had a significant impact on overseas learning experience, which was a highlight for degree students. Those who had planned to go overseas for their “Service and Leadership Training” stint could not do so, as travelling overseas was not allowed. On the other hand, a good number of students managed to carry on with their internships, but the attachments to their respective organisations had to be done online.

Singapore entered Phase 2 of Safe Re-opening on 19 June. This saw an easing of some earlier restrictions but health and safety measures, such as safe distancing and mandatory mask wearing, were

still enforced. At the time this article was written, all schools had re-opened, and NIE along with all other parts of NTU had started the new semester for the academic year. With the reopening of the campus, student teachers could attend face-to-face tutorials. To abide by COVID-19 safety regulations, lectures for more than fifty students had to be conducted online. Some tutors also adopted a blended learning approach (a combination of face-to-face and online sessions throughout the semester) while others conducted hybrid lessons. In hybrid lessons, some students attended classes in the tutorial rooms with their tutors while another group participated elsewhere, viewing the tutorials via live streaming. This was mainly carried out when the class size was more than fifty or when the tutorial rooms had a reduced seating capacity due to safe-distancing measures, and not all students could sit inside the rooms. Cleanliness was an important weapon used to fight the spread of COVID-19. Bottles of hand sanitisers were placed all over the campus and wet-wipes dispensers were installed in all tutorial rooms for students and staff to wipe down their furniture after use.

Learning from COVID-19 Challenges

The challenges that faculty and students faced, though unfortunate, were real-life object lessons on developing many of the competencies which NIE believed were important to being a future-ready institution preparing future-ready teachers (NIE, 2018). At the heart of this future-readiness is the ability to develop resilience, perseverance, collaborativeness, responsiveness and adaptability in the face of rapid changes and disruptions, which we now know to be a hallmark of the new century. It also provided our institution with the opportunities to hone and develop skills that can further promote the true purpose of education (OECD, 2018).

Developing Future-Ready Faculty

A number of academic staff had limited access to their own teaching resources during the Circuit Breaker. During these times, they learnt to be creative and sourced teaching materials from the internet and from among themselves. With the help of staff from NIE’s Centre of Innovation in Learning (In-Learning) who provided online workshops on teaching tools, these faculty members found themselves rapidly learning new skills. Another

challenge faced by faculty was related to assignments. Pre-COVID, students submitted hard copies of their assignments but during the Circuit Breaker, faculty had to grade all the students' work online, which was a tedious task for many as it meant marking a large number of assignments on an electronic platform. Besides adapting to this new way of marking, some faculty members also resorted to using WhatsApp and other platforms to provide verbal feedback to groups.

In Phase 2, faculty members were eager to conduct in-person lessons but safe-distancing created a new challenge. Many tutorial rooms in NIE could not accommodate more than twenty students, as the tables and chairs had to be re-arranged to meet the one-metre safe distancing requirement. Some classes with more than twenty students had to be conducted in large lecture theatres instead. Some tutors also resorted to hybrid lessons. Once the locations to hold tutorials were settled, the next new normal which the tutors had to accept was to teach with masks on. To make it easier for faculty members, the university provided all staff with face shields. They could wear them when teaching in front of the class but had to switch to masks should they want to interact with students at one-metre distance. Faculty learnt to adapt to new ways of engaging with students and also put aside some of their tried and tested pedagogies and embrace new ones.

Developing Future-Ready Students

NIE students also faced challenges when it came to learning during the Circuit Breaker. During this period, non-essential workers had to work from home; school students had to study from home; and our NIE student teachers had to attend virtual lessons at home too. For NIE students who had school-going siblings and/or work-from-home parents, they had to share the space with everyone else in the family. Not all of them had big rooms to accommodate all of them comfortably and as a result, some of them had to whisper when interacting with their course mates or tutors during the virtual synchronous lessons. There were also students who were parents. This group of students had a stressful time trying to manage their children's home-based learning and their own learning too. Student teachers who were parents with young children also had to cope with interruptions to their own learning by their toddlers and pre-schoolers. All in all, learning at home took quite a lot out of these

students preparing to become teachers. Nevertheless, their personal experience and their involvement in delivering home-based learning had also strengthened their empathy for the children they will have to teach in the future.

Some students also experienced other kinds of disappointments. The university had cancelled all overseas travels, so the Degree students who had planned to have their semester exchange programmes overseas had to forgo their plans. To provide this group of students with alternatives for interactions with NIE's partner universities overseas, webinars were conducted. As for the students who were supposed to go for their internships, they managed to find organisations that were willing to have them serve the companies or institutions while working on the computers at home. While all these were necessary alternatives, it cannot be denied that the students had to learn to persevere and work through their disappointments and get the most out of the circumstances. Hopefully, their experiences will make them better teachers who can motivate their future students with stories of their resilience in the face of unprecedented disruptions.

Accelerating Changes

Although COVID-19 brought challenges to the NIE community, we also found opportunities for us to improve as an institution. A very obvious one was the switch to the use of Information Communication Technology (ICT) in quick time. Faculty members who used to be cautious with the use of ICT for teaching had to learn fast and try their hands in whatever ICT tools they deemed appropriate. Some of them even learned from their more technology-savvy students. They also participated in in-house online tutorials more actively than before, and when campus re-opened, many were ready for the blended teaching approach that NIE had been advocating. The pandemic has made this emphasis even more critical than before. As an institution that prepares teachers and provides teacher professional development, it was essential that we constantly enhance the quality of our teaching using ICT. The disruptions in the past many months had galvanised the entire NIE teaching faculty to do more of this and to innovate e-pedagogies that can benefit the learning of our student teachers.

This Pandemic also accelerated the enhancement of NIE's learning environment. Our ICT staff worked through evenings and weekends to set up webcams in many tutorial rooms to support the live streaming of lessons. They were equipped with webcams, and clipped-on microphones supported by Bluetooth connections; and more licences for teaching software were purchased. All teaching staff also received wireless earphones with built-in microphones for their online teaching. As to be expected, these new innovations such as live-streaming did not go without a hitch, but in the process, faculty and students also learnt patience and appreciation.

Moving Forward

The pandemic has disrupted education but the responsibility of preparing quality teachers for Singapore's education service cannot stop. Teachers at every level (student teachers, teaching faculty) are professionals who must be constancy supported with the time, the space and the tools to carry out their responsibilities well (Liu & Tan 2015). COVID-19 might have momentarily thrown NIE's routines off balance but we persevered. NIE's faculty, staff and students had risen above the crisis by acquiring new skills and developed new mindsets to adapt to the new normal. More importantly, as a community we learnt steadfastness, resilience and solidarity. We supported one another emotionally, especially during the Circuit Breaker and Phase 1 of Safe Re-opening when we could not be physically in each other's presence. Several departments and Academic Groups 'met' their colleagues once a week via Zoom or Microsoft TEAMS to stay in touch and to foster the 'togetherness' spirit. The NIE Director, as head of the institution, sent regular emails to update and encourage the community in order to foster a spirit of care and togetherness in the face of many collective and individual challenges. The University Provost also sent regular emails to all students and staff about the University's directives. All these channels of communication were helpful during this difficult period. They also underscore the importance of human communication and connection in a post-pandemic world where technology is set to take on an even greater role in the work that we do. As a community of educators we must continue to develop empathy, adaptability and other human qualities so that we can cultivate these in our student teachers and the younger generations whom they teach. Last but not least, leaders of teacher education institutions must

motivate our student teachers and colleagues to have a mindset of continual learning, and to provide them with avenues and resources to cultivate it.

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