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PEDAGOGY OF THE PANDEMIC: A CASE STUDY OF EMERGENCY REMOTE EDUCATION IN A PRIVATE HIGHER EDUCATION INSTITUTION IN EGYPT

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The British University in Egypt (BUE) (EGYPT)

Abstract

COVID19 caught almost every higher education institution off guard. The pandemic interrupted the teaching and learning process and required immediate implementation of emergency remote learning strategies. Teaching pedagogy turned to new ways of thinking about learning. Consequently, both academic staff and students had to adapt without warning to the challenges of teaching with advanced technology from home which was taking the world by storm. Overcoming this challenge in Egypt has been much easier for private universities in comparison to state universities because of the availability of facilities, funding, smaller cohorts and validation by partner western universities.

This paper shares reflections on teaching and online activities during the pandemic at a private higher education institution in Egypt. Reflections focus on: technological teaching tools, alternative assessment methods, academic and psychological student support, professional development, and student experiences. The paper also shares best practices and recommendations based on the experiences of academics in Humanities, Law, Business, Engineering, Informatics and Computer Science, Energy and Environmental Engineering.

Keywords: Online learning, Emergency Remote Education, Student Experience, Teaching with Technology, COVID19 Coronavirus Pandemic, Higher Education, Egypt, BUE.

1 INTRODUCTION

Uncertain times require unorthodox measures. They also require effective crisis management and support mechanisms. The Coronavirus (COVID19) pandemic forced every nation to bring normal life to a halt and impose strict precautionary measures with either complete lockdown or partial operation of necessary services. Education across the globe was interrupted abruptly and emergency remote learning was the only solution available to support the education of one and a half billion registered students around the world [1]. Experiencing interruption to education on a global scale meant that there were no perfect models to follow, no pedagogy for education during a worldwide crisis and no manual to support academic teaching staff and ensure the wellbeing of students.

The presiding need for the continuity of education during the Coronavirus pandemic forced academic institutions to redirect their teaching and learning to digital pedagogy; learners were flooded with an overload of information pressuring them to put into practice their independent learning skills and academic staff were mercilessly swamped with myriads of technological tools to ensure they were digitally savvy regardless of their level of experience in teaching with technology. The availability of resources, technological tools and internet gave false assurance that the learning is indisputably effective. The pandemic however, revealed the need for competencies, independent learning skills and critical thinking. Amidst a crisis teaching content was redesigned, assessments remodelled and staff development expanded to cover the areas of deficiency in digital literacy and technology.

Handling the challenges of teaching and learning in higher education institutions during the Coronavirius in Egypt has been equally trying. Amidst the absence of concrete facts about COVID19 and its outreach, it was challenging for university leaders to navigate the hurdles of the crisis to ensure their academic institutions adopt appropriate sustainable and effective measures of operation. The situation, however, was considerably easier for private universities; many private higher education institutions across the country were able to continue to deliver learning online via technological tools and maintain quality education. The British University in Egypt (BUE) is such an example.

This paper aims to share reflections on teaching and learning during the COVID19 pandemic crisis across the disciplines of social sciences, arts and humanities, engineering, and informatics and computer science at The British University in Egypt (BUE). The paper will offer insights into the navigation of uncertainties that led to the declaration of nationwide policies by the Ministry of Higher Education and Supreme Council for all higher education institutions across Egypt, BUE's adaptation of these policies, challenges of teaching, engaging learners, examples of classroom experiences, undergraduate student support, alternative assessment strategies, effective technological tools that match students' learning styles, links to resources and recommendations. Authors share their first hand experiences and observations, classroom practices, suggest solutions and recommendations.

The British University in Egypt (BUE), is an accredited university in QS Ranking with over three hundred and eighty research papers in Scopus and over 72,450 million Egyptian Pounds in external funding. Established in 2005, the BUE currently operates eleven faculties and hosts over eleven thousand undergraduate students. UK partner universities include London South Bank (LSBU) and Queen Margaret University. Like many universities, the BUE's learning process was interrupted because of COVID19. Teaching and learning during the pandemic required immediate implementation of "emergency remote education" (ERE) [2] under complete campus closure.

2 IMPLICATIONS OF THE PANDEMIC ON DIFFERENT DISCIPLINES IN HIGHER EDUCATION

2.1 Emergency Remote Education (ERE)

The ad hoc measures implemented to resume interrupted education during the Coronavirus crisis is best described as "emergency remote education (ERE)" [3]. ERE has been considered synonymous with distance learning, that however, is not the case. Distance education is a pre-planned educational practice underpinned with theoretical knowledge; emergency remote education, on the other hand, was a measure used in ad hoc circumstances to ensure the continuity of interrupted education during a pandemic while grappling for survival [4]. ERE is not guided by underpinning theoretical pedagogical practices, that however, does not undermine the value to the content delivered or overshadow in any way the quality of the learning process. Quality education during the pandemic was still possible within contexts where extreme caution was taken to redirect the delivery strategies, modify content and put alternative assessments in place in order to achieve the intended learning outcomes as well as ensure the development of students' skills required for progressing years as well as employability.

2.1.1 Discipline Based Cases of Implementing ERE

Based on the above, this paper will use a case approach based on disciplines to better understand how each field adapted measures to deal with the interruption of education and share best practice of shifting from face to face teaching and learning to emergency remote education within the context of a private higher education institution in Egypt.

2.1.2 Faculty of Engineering (Prof. Hani Ghali and Prof. Maguid Hassan)

Understanding concepts in engineering relies on two critical components: lab experiments and modeling techniques. Laboratory experiments are essential in most of engineering disciplines to support students' understanding of physical concepts through data verification. At the same time, with the huge advancement in computing facilities, modeling techniques have been integrated to provide students with unlimited opportunities to test and verify different design options before proceeding to the implementation phase. Under normal teaching conditions, both options are available on campus. During the pandemic and complete campus closure, appropriate alternatives were proposed without major sacrifices in the pedagogical aspects related to both content delivery and the expected intended learning outcomes. Implemented options included virtual laboratories where students could perform simulation activities that resemble laboratory experiments with an expected ideal output. However, due to the lack of experimentation's uncertainty that encourages and motivates students, the engagement of students with this type of alternative practice remained limited with very little understanding of the targeted concepts. Furthermore, the use of standard modeling techniques based on commercial software tools was not feasible in all cases. This is mainly due to either software tools license limitations or computing facilities that were not available at the students' sites, thus this remained as a missing critical tool in the learning cycle. The Faculty of Engineering at the British

University in Egypt (BUE) developed and implemented different solutions in the context of emergency remote education.

Online tools are mainly simulation-based activities with responsive visualization options students/teachers can use to explore the effect of different parameters' variation on the performance of a certain engineering or physical concept [5]. These online interactive teaching and learning tools have been locally developed using open source software tools. Furthermore, the set of developed tools have been packed in a mobile application configuration that works on any mobile device regardless of the operating systems (Android, Microsoft, and IOs). In addition, the developed mobile app has been designed to work even without the need for internet connection. This is very important to ensure that students have full access to these remote learning facilities anytime and anywhere [6]. These interactive tools or simulation-based activities have been integrated in the delivery of online lectures, tutorials and even remote testing. In online lectures, it provides the instructor with a flexible tool to examine different problem configurations so that students can grasp the physical concepts behind the problem. Moreover, as these online interactive tools are available on students' mobile devices, they can follow the instructor not only through watching, but through "doing" the same exercise on their portable devices, thus improving their engagement. On the other hand, in tutorials, students were asked to run these tools, individually, to verify certain design configurations. Furthermore, to avoid plagiarism cases in online testing, each student is assigned an individual configuration that might be generated based on some randomisation of his/her ID numbers. Typical case for online tools is shown in Fig. 1(a) and Fig. 1(b). These are intended to be used for Degree Year 1 engineering in math modules. The tool helps students to imagine the configuration of both spherical and cylindrical sections.

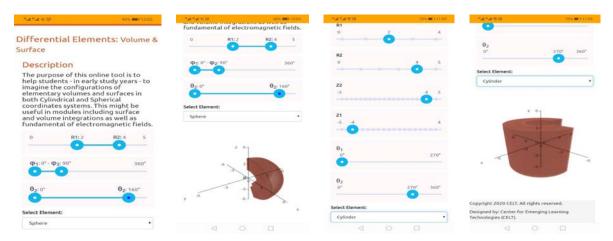


Fig. 1 (a): Section in Spherical Systems

Fig. 1(b): Section in Cylindrical Systems

+ <u>Remote Experiments</u>

Remote experimentation emerges as an attractive alternative for on-campus lab experiments, where students can, remotely, control a real-time experiment setup and associated equipment and sensors, and in the same time visualize its operation. Current technologies have supported the implementation of such scenario through different options [6-8]. A sample real-time experiment was developed to operate fully remotely along with corresponding real-time visualisation. In the case of a remotely controlled experiment only a single user is able to access the setup, however, the instructor and other students meet virtually during the lab session providing real-time technical support for the experiment's operation, allowing faster collaboration among students, and real-time feedback. The use of standard virtual meeting platforms during the lab session provides enhanced students' engagement for the remote experimentation exercise. The proposed operation scenario fits within the synchronous learning activities yielding the biggest advantage of human connections. On the other hand, to match the on-campus lab session, two extra online tasks are added within the allocated experiment's time slot, these are pre-lab activities and post-lab assessment. The use of the two online tasks, besides the real-time testing task allow more students to operate simultaneously in each lab session. Fig. 2 shows a sample of the student's user interface (UI) to control the experiment setup along with the corresponding output data.

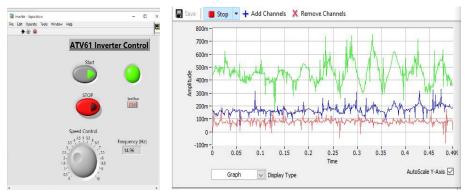


Fig. 2. Remote Experiment: Student's user interface (UI)

Acquired experience with the use of interactive teaching and learning online tools reveals the need for the development of a wider pool of interactive online components to cover larger amount of modules' technical contents. It might be of great help thinking of a "Hub" for each specific discipline, where inside the hub all relevant tools are available. The strategy of the "*Hub*" should map the programme specifications to identify thread of modules for which a specific "*Hub*" should be developed. In addition, the role of Modules' Leaders is of great importance, where they should be involved in the design loop of these tools/hubs to help both students and instructors. On the other hand, although remote experiment has a lot of advantages compared with virtual labs, it should be noted that this might not be applicable for currently existing labs and associated equipment. This is mainly due to technological limitations with existing equipment. Consequently, the development of virtual labs seems to be a possible solution, whenever needed. This solution has many advantages over remote experiments related to the cost of implementation and the required implementation time. The former factor might favor it over remote experiments, for the current emergency scenario.

2.1.3 Faculty of Energy and Environmental Engineering (Dr. Sarah Khalil and Prof. Attia M Attia)

The Faculty of Energy and Environmental Engineering (FEEE) at The British University in Egypt (BUE) was aware of the challenges ahead. The key challenges were: 1) the rapid transition to remote teaching, 2) engaging students and students support, 3) assessment and grading, and 4) ensuring academic integrity. The most difficult aspects of the rapid transition to remote teaching and learning was the full technology integration and supporting students remotely. By the second week of university closure, students' attendance and engagement fell as low as 40% in some modules. The students were frustrated, lost focus, and motivation for their study. The FEEE took steps to assure students get the quality of education they expected by holding online revision sessions, reaching out to weak students by scheduling additional academic support sessions and for those who stopped attending, lecture and tutorial sessions were recorded and uploaded on Microsoft One Drive and STREAM. Improvement was noticed in attendance over time.

Rapid transition to full technology integration required learning from others and sharing our experiences. The FEEE hosted an international virtual conference on teaching and learning in higher education institutes during the COVID-19 crisis titled: Teaching, Learning and Contingency Plans in Higher Education Institutions. At the same time, staff development workshops were carried out in week 3 of university closure to support academics in their transition to using interactive teaching tools on ZOOM, Microsoft Teams and interactive e-books for quizzes.

Students complained that when module leaders used presentation slides to walk them through the solution of problems, it was not effective. The immediate action was asking module leaders to switch to more interactive methods. Module leaders chose the following techniques as interactive ways for engineering and problem-solving content: LCD graphical screens connected to the instructor's computer where handwritten solutions by the instructor showed on the ZOOM video streaming. Some instructors used a web-camera to video stream their lectures while writing on sheets of paper. Other instructors used the annotate tools in ZOOM and specially the whiteboard option to explain engineering topics. All of these methods were met with positive feedback from students and parents; consequently, there was a noticeable increase in students' interactions with their instructors. The staff development workshops helped staff mitigate the students' complaints related to problem-solving modules and ensured a higher level of quality teaching.

Students were encouraged and supported by staff to participate in competitions and boot camps organised by the United Nations such as COVID-19 Innovation Competition and Design Bootcamp 2020, The COVID-19 Detect & Protect Challenge, and Innovative Ideas and Technologies vs. COVID-19 and beyond. Engaging students in international competitions to develop creative solutions for problems faced in the COVID-19, attracted their interest to the taught modules, this was an effective solution to tying practical experience with academic study. Students used their knowledge from the workshop technology modules and guidance from the instructors to participate in the United Nation - Economic Commission of Africa (UN-ECA), COVID-19 Innovation Competition and Design Bootcamp 2020.

2.1.4 Faculty of Law (Dr. Yasmine Abdelmoniem and Prof. Hassan AbdelHamid)

In accordance with compulsory campus closure and in accordance with the BUE Contingency Plan the Faculty of Law focused on practical assessments: simulations and moot court.

The E-justice has become an important step towards increasing and improving the efficiency of courts and jurisdictions in general with the use of technology. The growing reliance on technology and information systems render the E-justice an element that facilitates the access to justice. Many legal systems have successfully referred to technology to enhance the justice sector [9] and carry out more efficient tasks by saving efforts and money. The E-justice encourages the digitisation of the judicial process which has proven its efficiency during the outbreak of COVID-19 pandemic. The development of this process leads to the reshaping of legal institutions and norms [10]. In this regard, the Faculty of Law values the importance of E-justice in all its aspects. Accordingly, it encourages the practical application of legal learning through various tools mainly the Simulations and Mooting. It is known that the mooting experience presents many valuable benefits for the participants; it is a vehicle for learning [11] that enables the students to learn the practical real legal environment through interesting activities.

An unprecedented Electronic Moot Court (E-Court) in Egypt and the Arab world was held by the BUE Faculty of Law degree year two students. The E-Court was the outcome of an innovative and outstanding training programme. The Moot Court was intended to settle a commercial dispute which has been virtually heard and adjudicated on the first and appellate levels of litigation. This outstanding experience pointed out the benefits of using technology in online mooting [12]. The E-Moot Court focused on familiarising the students with the electronic litigation procedures since the Egyptian courts are shifting from paper to digital litigation using modern technology. This experience has trained students to electronically prepare, submit, and circulate judicial papers. The hands-on experience that the students gained by the end of this training programme is of paramount importance for future law practitioners.

Throughout the E-Moot Court, a number of students pleaded as lawyers and electronically submitted documents and defense memos before their colleagues who performed the role of judges issuing rulings in the case without direct physical attendance of any of the students. This programme came to practically embody the Applied Legal Education curriculum extensively adopted by the Faculty of Law at the British University, which depends on blending legal theories with practical application in order to create a real legal environment. The applied learning approach is the method that should prevail in the educational process in order for the Faculty graduates to meet the extensive need for well-prepared law practitioners and the needs of the modern labour market in the areas of law and to keep pace with technological progress while maintaining the desired balance between theory and practice. This is considered as the Faculty's vision and long-term strategy to revolutionise the legal education in Egypt. The Top legal officials who attended the E-court praised the electronic online trial that the students conducted in their attendance. They attested that this training programme is a pioneer model that can be built upon in both the educational process and also in the field of judicial technological development. The E-Moot Court raised a positive debate regarding the opportunities and mechanisms of implementing the electronic litigation in Egypt.

2.1.5 Faculty of Business Administration, Economics and Political Science (Prof. Hadia FakhrElDin and Prof. Wadouda Badran)

The Faculty of Business Administration, Economics and Political Science (BAEPS) management team, the teaching and administrative staff successfully implemented a plan that aimed at "Student Inclusion" putting its students as a priority ensuring that their learning experience was not affected negatively by continuing to deliver high-quality education that equally considers their overall wellbeing despite the campus closure during the COVID-19.

The teaching and learning philosophy of the Faculty during the campus closure was still based on a combination of behavioural, cognitive and constructionist theories of learning, ensuring a comprehensive learning experience that encompasses frequent review with check tests at strategic points and/or repeat practice with feedback [13]. This philosophy stemmed from the belief that learning is an active process of knowledge acquisition and integration by the learner [14] using internal coding and structuring that are aligned with human cognitive architecture [15] in addition to actively constructing new ideas, meanings or concepts from experiences that are reflected on real situations [16].

New and updated mechanisms and procedures for managing delivery, assessment and feedback were developed. These included the effective use of the electronic learning support system (ELS) through the timely upload of lecture slides and recordings on the e-learning; integrating the e-learning with other platforms such as Tegrity, Zoom and Microsoft Teams for teaching and learning and communication with students. In addition, several processes were put into place such as close monitoring of the teaching and learning process across the three Departments; setting immediate corrective actions when problems occur; creating future learning and assessment strategies; and ensuring that all staff members are adequately contributing to the implementation of the current contingency strategy. Furthermore, new guides and manuals were developed for academic staff in addition to a student FAQ handbook:

- 1 Link: https://docs.google.com/document/d/1GXvLwBv8l72elXXuzbA4YRY6CEn ZSxWYcE4A5RaFQ/edit
- 2 Senior Year Activity Log: https://docs.google.com/spreadsheets/d/10RviF61eok3ZXXD9vBxiz9-CQNMzRLHtX_FwUbwV8ok/edit?usp=sharing
- 3 Turn-it-in guide for staff: http://lib.bue.edu.eg/about-turnitin/
- 4 Turn-it-in guide for students: https://bue.libguides.com/Turnitin2_Students.

Several interactive learning handbooks and the Preparatory Year anti-plagiarism manual, as well as several staff development manuals that support staff members in online delivery and in developing and marking assessments online were also made available:

https://web.microsoftstream.com/video/c85ec8c0-b765-4792-99d0-ecc8779fe698, https://learn.bue.edu.eg/course/view.php?id=4011).

The main challenges during this period were IT problems, specific content which was difficult to deliver online, and e-learning difficulties. The internet posed problems to the students who were not always able to connect effectively. The e-learning suffered from deficiencies that slowed it down and made some functions not available. In addition, some modules posed specific challenges due to their nature, particularly quantitative modules. Also, the uncertainty of that period put emotional pressure on students and staff. Furthermore, staff members had to acquaint themselves rapidly with new online tools and techniques to support them in delivery, assessment and marking.

- + <u>Recommendations</u>
 - IT infrastructure should be further developed to ensure easiness of use and sustainability. Enhanced technological support to the teaching teams is expected to improve the quality of teaching and save time.
 - E-learning serves as a useful tool for students and staff alike during closure. Hence, more attention should be paid to resolving server capacity issues and quality of e-learning. E-learning should be easy to navigate, fully functional and technically upgraded, especially the quick mail, chat rooms and forums, where activity can be monitored.
 - The variety of assessments should be expanded to embrace closure periods and any disruption of face-to-face teaching. New assessments forms need to be developed that are compatible with the shift to online teaching while still fulfilling module and programme ILOs and enhancing the students' skills.
 - Teaching teams need to continue the emotional and motivational support to students, bearing in mind the exceptionality of the current times by being more flexible and understanding of the situation, minimize stress and be less rigid in dealing with students during this period.

2.1.6 Faculty of Informatics and Computer Science (Prof. Omar H. Karam)

The Faculty of Informatics and Computer Science (ICS) has a history with e-learning that extends to more than ten years, ICS was one of the first faculties established at the BUE. Initially there was strong reluctance against digitising lecture notes and resources; most academic faculty staff in ICS were used to face to face lecturing and individual interactions in the laboratory. The consensus was that programming, programming concepts and programming related material would be taught through the teacher – student face to face interaction due to the nature of the material that required high level of comprehension. Computer scientists often have the tendency to improvise and this created yet another challenge that had to be addressed, harnessed, and structured in order for our e-learning system to be of real value for our students and an effective platform that is rich in content. Several factors assisted in achieving this such as: adopting a BUE education strategy that emphasises self-learning and flipped classroom techniques in addition to learning options that are multiple and variant. The later proliferation of electronic resources for teaching and learning Computer Science enhanced the expertise and the abilities of the academic staff to implement and use remote learning and its material. Another factor was the students themselves, who were *born digital* and who, as experience and results have shown, indeed learn better with the aid of multiple electronic media resources.

Upon the advent of the Covid-19 crisis, and upon the University Board decision to immediately implement on-line teaching and to migrate as much of the teaching and learning process as possible to cyber space, ICS needed to evaluate the degree to which they were ready for this migration and the extent of this migration. The view was therefore three dimensional: i) The first dimension naturally categorised the sessions to lectures, tutorials and laboratories, ii) the second dimension was by level of study, i.e. Preparatory Year, Year 1, Year 2, and Year 3, and iii) the third dimension was the nature of the module. The result was the following categorisation: Programming and Computer Science modules, Basic Science modules (Mathematics and Physics) and finally, Humanities, English and Business modules.

Given that one hundred percent of ICS modules had a strong e-learning presence, the decision was made to target moving one hundred percent of the ICS teaching and learning. This meant that no component of any module delivery will be postponed, including tutorials and labs. The regular weekly schedule will have to be maintained – including the office hours for the module leaders and the teaching assistants. All lectures were moved on line while maintaining the regular schedule. Each academic level was assigned their specific on line meeting channel. For Years 2 and 3, where there are multiple specialisations, hence two additional channels were necessary.

Most Module Leaders needed to change between 20 to 30% of their teaching slides content. The change always included adding material that was mentioned only verbally but now needed to be seen as well as heard. The added material included written content, audio and video material. Most additions were at the Preparatory year level where in one module, "Introduction to Programming", the change in the nature and amount of the slides was to the extent of 75%. Special attention was given to at-risk student's by following up on the performance of students with trailing modules and repeaters for support to be provided where and when needed. For graduating students, in addition to the virtual office hours, all Module Leaders scheduled revision sessions for all modules.

The ICS tutorials, which are delivered usually by the teaching assistants and are mostly problem solving sessions, needed a much higher level of documentation than before. In addition, the sessions' interaction degrees were less and could be seriously affected. Discussions in tutorials for a module such as "Legal and Professional Issues in Computing" are vital both for understanding and for proposing and approving case study based term papers. These discussions had to be extensively extended outside the designated contact hours. Senior teaching assistants in every module led the efforts in these sessions with much more involvement from the Module Leaders in the design of the tutorial conduction. The teaching assistant office hours were maintained and extended, but a very high level of virtual interaction occurred at all hours of the day.

The ICS laboratory sessions at all levels were maintained. The University policy allowed for the postponement of the sessions until the students could be on campus, but it was not possible for the lectures in almost all modules to proceed without progress in the laboratory. This was facilitated by the fact that all necessary software was made available on the students' computers. In the case of a module such as Physics (Preparatory level), where the material is mainly Electric circuits and Electromagnetism, a virtual lab was made available to the students. The missing experience, or ILOs, of handling hardware will be compensated in the future modules "Electronics and Digital systems" and

"Embedded Systems". According to the statistics provided by the IT team, 65% of the ICS students participated in the teaching sessions of 41 modules offered in the semester.

The coursework assessments in ICS are projects in nature or laboratory tests, this was overwhelming. As a result, out of 60 coursework assessments, only 6 required changes in their type. This does not include take home problems or questions but includes changing an in-class test to an essay, in-lab tests to take home lab work and one example of a viva in place of an in-class test.

The final exam type, according to regulations, was to be one of three options: A research essay, a review research paper, or a research project including design problems, reports and discussions. All finals conformed to these types. Most Module Leaders opted for the latter choice.

A requirement for the ICS students after Year 2 is a two-weeks training. The severely limited options available for the students under the current emergency status had the faculty prepare lists of on-line courses, mini certificates, or on-line internship opportunities with companies. These lists were prepared by the faculty-industry liaison officer and the coordinators of the different academic ICS specialization areas (Information Systems, Computer Science, Software Engineering, Computer Networks and Artificial Intelligence). The student is to choose one of these options and present the faculty with a completion certificate at the end of the training.

2.1.7 Faculty of Arts and Humanities (Dr. Rania M Rafik Khalil and Prof. Shadia Fahim)

The Faculty of Arts and Humanities at The British University in Egypt (BUE) like all the other disciplines previously discussed, worked diligently during the pandemic crisis to ensure delivery of quality education. To complement academic teaching and learning, it was necessary to provide pastoral support for students' wellbeing to ensure optimised students' engagement in the learning process. It was equally important to create opportunities for internationalisation during closure, share content to enhance creativity, and produce a multitude of activities to enrich the students' experience.

The Faculty of Arts and Humanities at the BUE caters to three degree programmes: English Language and Literature, Psychology, Chinese Language and Culture. These discipline areas although are a blend of theoretical and practical learning, focus less on practical laboratory work. As a consequence, redesigning content to shift to full online teaching was feasible despite the surmountable pressure and tight timeframe by which the process of implementing emergency remote education needed to be initiated and operated. Engaging students in theoretical content fully online, however, posed challenges for academic staff. This challenge led many of the module leaders to resort to interactive teaching on Microsoft Teams, recorded lectures on Microsoft Streams, in addition to sharing scaffolded tasks in breakout rooms on Zoom to encourage students to work collaboratively and share their views with their peers through moderated forums. Formative assessment and feedback in this structure were intrinsic to students' achievement and a robust learning process.

In addition to providing academic support, the Faculty of Arts and Humanities was vigilant towards students' emotional and psychological needs during the crisis. Repercussions of the pandemic were reflecting noticeably on the students' learning process, attendance and engagement. Consequently, an online psychological counselling support service was offered by the Psychology Department to BUE students. The personalised online sessions aimed at reducing students' stress, offered anxiety coping strategies and ensured students remained positive during lockdown in order to help them optimise on their learning process. The online wellbeing sessions were booked via the link below:

https://forms.office.com/Pages/ResponsePage.aspx?id=Bm7bl8QFnUixNsupSo5vNkoAe8-1pQ1OqvKirnjOV4ZUNjFXT0tOTzE3Q0U2TERWVVpUWTJIUIJHUy4u

Data collected via an online survey by the Faculty of Arts and Humanities, indicated that the problems addressed were 24% stress, 21% anxiety, 19% personal relationships, 12% academic studying problems, 11% adjustment problems and 13% depression. Analysis of the data showed that 45% of the issues handled were related to the COVID19 crisis. The online Psychology Counselling Sessions however, were effective in sustaining students' wellbeing. This is marked by an increase in students' engagement, attendance and participation in online activities and assignment submissions. Overall, 82.4% students indicated that they were very satisfied with the service. In addition to the online Psychology Counselling Sessions, a pamphlet on coping strategies during the pandemic was circulated to all undergraduate students and academic staff.

Enhancement of the students' experience through exposure to internationalisation was a key aspect during the closure. Collaborative teaching was coordinated with Stockton University in New Jersey for Degree Year 3 students in the Psychology Department. The virtual international exposure was an

alternative to student exchange which was affected by the global pandemic. The overall experience was well received by students at both the BUE and Stockton University. This international collaborative student experience, revealed the flexibility of working across borders and is believed to enhance the chances of Arts and Humanities graduates of working in new modes of employment that fit the new norm.

Cultivating creativity amongst the students and highlighting the importance of the arts during a crisis of this size was another objective that needed to be manifested with utmost diligence. The Faculty of Arts and Humanities collaborated with award-winning Canadian playwright Marty Chan to create a short YouTube video addressing the arts and humanities students. Chan's video aimed to highlight the importance of creativity and shared tips on how to produce art that is valued and appreciated across borders. Chan, additionally shared his personal experience of becoming a professional playwright in order to inspire those who wish to travel down a similar career path with guaranteed success. (The link to the video is accessible on: https://www.facebook.com/watch/?v=909026843256608)

Optimising on new horizons during the pandemic created a new reality. It opened opportunities of virtual international collaboration, which in turn, enriched the students' experience and cultivated an atmosphere of creativity. To ensure a robust learning experience during COVID19 students' wellbeing was paramount in parallel to new modes of academic achievement.

3 CONCLUSION

Interrupted education, anxiety, stress, contingency plans and uncertainties, these are the experiences that befell educational institutions around the globe. Such a crisis, however, has opened the eyes of educators, higher academic institutions and policy makers that there are new paradigms beyond what were once considered advanced pedagogical trends. Educational institutions under the pressure to continue to deliver quality learning were forced to redirect their teaching strategies within the span of forty-eight hours and modify content including redesigning assessments to ensure different types of learners reach their full potential during an unprecedented crisis.

Despite the uncertainties of the Coronavirus, it is fair to say that academic faculty staff at The British University in Egypt (BUE) in the different disciplines of Arts and Humanities, Engineering, Business, Law, and Environmental Energy have succeeded in swiftly meeting the learning needs of their students on the academic level as well as ensuring the wellbeing of their future graduates. The challenges of modifying academic material and meeting the standards of reliable alternative assessment did not divert the attention of the BUE from continuing to develop the learners' employability skills. The university's overall vision for its graduates as global citizens was translated in the practice of each discipline to reflect the new normal and support learners in recognising the novel opportunities created by the pandemic. The contingency plan implemented by the BUE during COVID19, reinforced the students' employability skills which would allow them to contribute effectively in the new world context post the pandemic. The survival tactics acquired by both academic staff and students during this global crisis are now new realities that have reshaped our understanding of learning, teaching, creativity productivity and employability.

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REFERENCES

[1] UNESCO, "COVID-19 Educational disruption and response," (2020). https://en.unesco.org/covid19/educationalresponse

- [2] A. Bozkurt, and R.C. Sharma, "Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic." *Asian Journal of Distance Education*, vol.15, no.1, pp.i-vi, 2020. https://doi.org/10.5281/zenodo.3778083
- [3] A. Bozkurt, and R.C. Sharma, "Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic." *Asian Journal of Distance Education*, vol.15, no.1, pp.i-vi, 2020. https://doi.org/10.5281/zenodo.3778083
- [4] C. Hodges, S. Moore, B. Lockee, T. Trust, & A. Bond, "The Difference Between Emergency Remote Teaching and Online Learning," *EDUCAUSE Review*, 2020. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-andonline-learning
- [5] H. Ghali, N. Y. Ammar and I. Adly, "An Interactive Mobile Hub for Teaching Electromagnetics Courses [Education Corner]," in IEEE Antennas and Propagation Magazine, vol. 62, no. 4, pp. 117-127, 2020. DOI: 10.1109/MAP.2020.2998850.
- [6] I. Adly, M. Fadel, A. El-Baz and H. Amin, "Interactive Mobile Learning Platform at the British University in Egypt", 2018 7th International Conference on Software and Information Engineering, 2-4 May 2018, The British University in Egypt (BUE), Cairo – Egypt.
- [7] M. Odema, I. Adly, and H. Ghali, "LabVIEW-Based Interactive Remote Experimentation Implementation using NI myRIO", 2019 International Conference on Innovative Trends in Computer Engineering (ITCE'2019), February 2-4, 2019, Aswan - Egypt.
- [8] M. Odema, I. Adly, H. Ghali, A. El-Baz, and A. Abdelkader, "Remotely Accessible Wind-Tunnel Measurement Platform for Academic Purposes", IEEE Conference on Power Electronics and Renewable Energy (CPERE), October 23-25, 2019, Aswan, Egypt.
- [9] G. Lupo, and J. Bailey, "Designing and Implementing e-Justice Systems: Some Lessons Learned from EU and Canadian Examples," *Laws*, vol. 3, pp.353-387, 2014. DOI-10.3390/laws3020353.
- [10] M. Velicogna, "Electronic Access to Justice: From Theory to Practice and Back," *Droit et Cultures*, vol. 61, no. 1, 2011. Retrieved 11 September 2020. http://journals.openedition.org/droitcultures/2447
- [11] A. Gillespie, "Mooting for Learning," *Journal of Commonwealth Law and Legal Education*, vol.5, no.1, pp.19-37, 2007. DOI: 10.1080/14760400701743349
- [12] J. Yule, J. McNamara, and M. Thomas, "Mooting and Technology: To What Extent Does Using Technology Improve the Mooting Experience for Students?" *Legal Education Review*, 2010.
- [13] J. A. Alokluk, "Investigation into the Effectiveness of Blended Learning as a Means of Supporting Management Development in MBA Programmes." *Hull University Business School*, pp.69-75, 2016
- [14] Beth S. Simon, "Family Involvement in High School: Predictors and Effects." *NASSP Bulletin* vol.85, no.627, pp. 8-19, 2001.
- [15] C.P. Sobel, *The Cognitive Sciences: An Interdisciplinary Approach.* Mountain View, CA: Mayfield, 2001.
- [16] S. Olusegun, "Constructivism Learning Theory: A Paradigm for Teaching and Learning." *Journal of Research & Method in Education* vol. 5, no.6, pp. 66-70, 2015.