THE UNIVERSITY OF THE WEST INDIES

The UWI *Quality* Education Forum

Number 25 May 2021

Navigating Higher Education in a Pandemic: Teaching and Assessment in the Time of COVID-19 and Beyond

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With a view to enhancing the delivery of higher education, the *QEF* provides a platform for scholars, educational practitioners, administrators, and students within and outside of the Caribbean to disseminate knowledge and ideas related to teaching and learning, administration, and other support systems and practices.

Navigating Higher Education in a Pandemic: Teaching and Assessment in the Time of COVID-19 and Beyond

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EDITORIAL

Navigating Higher Education in a Pandemic
Teaching and Assessment in the Time of COVID-19 and Beyond

PAULETTE A. RAMSAY

THE DISARMING EFFECTS OF A DEFIANT COVID-19 PANDEMIC forced educators to adopt strict physical distancing measures to prevent virus transmission. Furthermore, educational institutions at all levels worldwide embraced the unexpected challenge to teaching, by transitioning from face-to-face delivery to various modes of online teaching and learning. Higher Education Institutions sought to adapt, improvise, and creatively respond to the unique situation using a variety of distance learning technologies.

The twenty-fifth volume of *The UWI Quality Education Forum* invited academic essays which share the challenges, successes, and general experience with remote/online teaching and learning within the context of the pandemic. The volume comprises eleven essays that share the following:

- Lessons learnt from the sudden transition to remote teaching;
- Remote teaching and assessment;
- Online education in the Caribbean: Challenges and opportunities;
- The online education imperative and the challenge of limited resources: Institutional and/or cross-institutional perspectives;
- Expanding access to higher education through online/remote teaching;
- Best practices for online delivery in a pandemic;
- Adapting discipline-specific pedagogy to online mode.

Indeed, we now present an engaging collection of well-researched essays that

have emerged from different areas of the Academy – medicine, literature, law, engineering, computer sciences, and education. In a very powerful and creditable personal testimony entitled "FIRST PERSON: COVID-19 and the 'New' University Reality," ***Eldon V. Birthwright*** provides a unique critical perspective on his experience with online teaching and counselling, in a North American University, both prior to and during COVID-19. His experience during the pandemic has been especially instructive. He invites us to take an objective approach to the new, necessary paradigm and admits both the challenges as well as the rewards to be gained from interacting and engaging with students in a new space. Birthwright firmly presents the accompanying challenges as contributing to a very beneficial experience of collaboration, discovery, and mutual growth. Indeed, his sincere introspection, reflection, and sharing serve as a significant allure into the remaining articles in the volume which will make an invaluable contribution to the broad debate on the ways in which COVID-19 has affected course deliveries in the Academy.

Emergency Remote Teaching (ERT) in the Social Sciences

Trevor A. Smith and ***Suzette A. Haughton*** collaborate in producing a sterling contribution on Student Satisfaction with Emergency Remote Teaching (ERT) at The University of the West Indies (The UWI) during the COVID-19 pandemic. Their collaborative research utilises the Expectation Confirmation Theory as the basis for addressing students' satisfaction with ERT in the Faculty of Social Sciences. The study is driven by the claim of Hodges et al. (2020) that online/remote learning carries a stigma of being lower in quality than face-to-face and these hurried moves to do remote teaching may confirm this negative perception. The study utilises the survey design and factor analysis with descriptives and a final sample of 115 students. The study determines that student engagement, student access, connectivity, and communication along with recorded materials and online examinations are the satisfaction areas to be focused on in the ERT environment. The authors offer recommendations regarding student engagement, connectivity, and communication in situations of high levels of dissatisfaction, as well as pedagogical guidance to lecturers who are less confident/experienced in the ERT environment.

Emergency Remote Teaching and Medical Education

"The COVID-19 pandemic has had profound impact on medical education worldwide," point out ***Russell Pierre, Helen Trotman,*** and ***Andrea Garbutt***. Indeed, their sterling evaluative study of students' perspective of and satisfaction with emergency remote teaching and learning in the Bachelor of Medicine, Bachelor of Surgery (MBBS) Programme, in the Faculty of Medical Sciences, Mona, serves to confirm this. Furthermore, through univariate analyses in the summarising responses and the thematic analyses of open-ended questions, the researchers learnt that students' perception was "positive, enthusiastic and more engaged with active learning strategies" (Pierre, Trotman, and Garbutt 2021).

Online Teaching and Assessment in Law

The next essay in the volume takes us from the medical field to the field of law. "Transitioning to Online Teaching, Learning, and Assessment in the COVID-19 Era: Understanding Student and Faculty Perspectives" written by ***Wendell C. Wallace, Akinee Harry, Roshanna Ramdass*** and ***Sharlene Salina*** examines the challenges, benefits, opportunities, and lessons learnt as a result of the sudden transition from face-to-face to online modes of TLA at The UWI, St. Augustine campus. A qualitative phenomenological approach was adopted and data collected from a cohort of postgraduate criminology and criminal justice students (n=20) and their lecturers. Thematic analyses of the data emanating from semi-structured interviews with students and lecturers indicated a multiplicity of challenges, benefits, new opportunities, and lessons learnt (Wallace et al 2021).

Remote Online Assessment in Computing Courses

Ricardo Anderson presents his findings in an essay entitled, "Exploring Strategies for Assuring the Integrity of Remote Online Assessments." He draws attention to the fact that while some universities had embraced remote teaching and learning well before the COVID-19 pandemic, the integrity of remote assessments remains a significant concern for institutions and employers who demand competence in graduates (Anderson 2021). Prior to the pandemic, several tools were used, and different strategies explored for assessing students; however, the assessments done during this period revealed several anomalies across computing courses at

The UWI. This paper explores the experiences and challenges with final assessment across computing courses, including suspected cheating. Discussion of experiences, analysis of anomalies and recommendations provide generalisable assessment guidelines for assuring the integrity of assessments (Anderson 2021).

Google Classroom in the COVID-19 Pandemic

In a very interesting article, presented as "Transitioning to a Digital Educational Environment: A Lecturer's Perspective on Migrating to Google Classroom During the COVID-19 Pandemic in Trinidad and Tobago," ***Jason Robert Rameshwar*** highlights a case study in educational digital transformation using Google Classroom. It was made through direct observations of each student's response to changes in the educational platform and style of learning. This involved administration of ad hoc open-ended unstructured qualitative questions to students during the transition. The students' feedback identified thematic areas (of digital well-being, digital transformation and online platform access) that were used in a scoping literature review using Google Scholar. The effect of transitioning from the physical classroom to an online platform revealed that the majority of students were able to access the system with limited disruption. Practical implications of this experiential case study would be the application of the developmental elements of the digital transformation policy (Rameshwar 2021).

Foreign Languages Teaching (FLT) in the COVID-19 Pandemic

In this volume, three articles bring matters related to the teaching and learning of foreign languages to centre-stage. ***Nadine Karil Barnett's*** commendable article entitled "A Whole New World: Educator's Transitioning to a New Paradigm – An Evaluative Case Study" advances the view that the onset of the COVID-19 pandemic and the thrusting of educators into the world of virtual spaces and platforms also means that training for the educators needs to include the acquisition of Virtual Classroom Educator Competence (VCEC). The paper shows the levels of VCEC in which four educators began and how, through experience, they attained higher levels of VCEC by the end of the semester. The survey approach reveals the challenges, solutions, and lessons learnt in the virtual classroom during that first semester of transition.

In "The Impact of Technology in Professionalising Translation Graduates: E-Learning Experiences in The MA in Translation", ***Tamara de Inés Antón*** posits that recent changes in the translation industry now mean that the translator must also effectively use new technologies including information and communication technologies (ICT) and computer-assisted translation (CAT) tools as part of translation curricula. de Ines Anton describes how course content and assessment were restructured to account for recent developments in translation pedagogy, as well as the new virtual environment.

Maite Villoria Nolla explores and appraises new technologies in foreign language teaching in the essay "Approaches and Initiatives for Navigating the Teaching and Learning of Spanish Language in the Context of COVID-19". She analyzes the implementation of innovative pedagogical and methodological approaches adopted in the Department of Modern Languages and Literatures of the Faculty of Humanities and Education at The UWI during the COVID-19 pandemic. Among these are strategies incorporated into the design of classes such as the inverted class or "Flipped Classroom", collaborative writing and online reflection, gamification, and Virtual Intercultural Exchange. The aim is to see whether these strategies, including intercultural awareness, have improved Spanish as a Foreign Language learning skills (Villoria Nolla 2021).

Expanding Access to Higher Education During a Pandemic

The conceptual paper, "Redesigning Higher Education: Expanding Access During a Pandemic and Beyond" by ***Lyn R. Keith*** cautions higher education leaders against investing an inordinate amount of time responding to the immediate challenges of COVID-19 at the expense of planning for the long term (Keith 2021). Keith proposes that institutions of higher learning need to now redesign themselves (agility) and reconsider their business strategies as they contemplate the question of access. More critically, these institutions must now consider how they can provide for the new customer market segments, the changing nature of work, and resultant workforce development requirements in the age of the Fourth Industrial Revolution (4IR) (alignment) (Keith 2021). The debate is engaging and interesting.

Managing COVID-19 in the Assessment of Student Teachers

"Turning Conventional Teacher Education Clinical Practice Assessment on its Head: A COVID-19 Inspired Response to Practicum Assessment" is the essay done by ***Dian McCallum*** in which she examines the use of two assessment strategies – microteaching and demonstration teaching – as "remote emergency response" to the need for an alternative approach to the assessment of the practicum following the closure of schools during the COVID-19 pandemic. The study led to a recommendation for diversifying the assessment of the teaching practicum.

FIRST PERSON

COVID-19 and the "New" University Reality

ELDON V. BIRTHWRIGHT

COVID-19 HAS FUNDAMENTALLY CHANGED THE WAY WE DO and think about education. This change stretches from K-12 all the way to higher education. Globally, millions of students have been forced into new classrooms comprising a computer screen, a keyboard, and an instructor who seems to be located worlds away. Educators, meanwhile, have had to rethink their pedagogical worldviews and fully embrace the worlds of online and virtual learning spaces. While I am unwilling to definitively speak in the future tense and say this will be the new norm, I am quite comfortable stating in the present continuous, that, for now, this fluid situation is normative.

In March 2020, my university, a designated state Flagship, took the painful but practical decision to move all instruction online. The switch to online modes of learning was, for all intents and purposes, relatively smooth. Moodle had been a mainstay of campus learning technology for at least ten years, and a Moodle platform was automatically generated each semester for every course offered at the university. It was left up to the instructors to decide whether or not Moodle was incorporated into the learning offering. Zoom was also fairly widely used and was oftentimes offered as an external portal attached to Moodle.

So, our transition from face-to-face contact to virtual or online learning was relatively hassle-free, at least in principle. My three courses were designated online at the beginning of spring 2020, and two of the courses had already been offered in a 100% online format for at least three semesters. All I had to do was tweak. Instead of my students taking their exams in our computer-based testing lab, they now wrote papers and emailed them to me via Moodle. Instead of face-to-face office hours, I now met with students via Zoom, Skype, FaceTime, Google Hangouts, and by phone. While my office hours had always been relatively flexible, in the era of COVID-19 they became extremely fluid. I had student conferences

anywhere from 7:30 a.m. to 9 p.m., and my availability now included Saturdays and Sundays.

I soon discovered that I was spending more time responding to student emails and having virtual student conferences, than before COVID-19. This was an interesting trade-off. I would get out of bed in the mornings, shower, walk to the kitchen to prepare a mug of coffee, gulp down said mug of coffee over the sink, then bring a second mug of coffee to my home office. I would spend the first two hours of the day responding to emails – usually answering questions that could have been answered if students had read my fifteen-page syllabus. I would also use that time to respond to emails from university colleagues, publishers, and everyone else who claimed to want "only/just five minutes" of my time. After emails I would begin my virtual student conferences.

I kept an orange polo shirt next to my desk, and I pretty much used it for almost all of my virtual meetings. But beyond the one shirt lasting an entire semester, reduced dry cleaning bills, the joy of receiving department emails rather than having to attend long and nauseating meetings, not having to worry about campus parking, and being able to conduct business from the privacy, sanctity, and sanity of my own home, the lockdown also highlighted some thought-provoking issues.

Access and Technological Equity

Oftentimes we hear about the technological divide, and we are almost conditioned to associate it with K-12 education. However, personal technological bankruptcy is a harsh reality for thousands of students on many college campuses. There are many college students who do not own computers or have computer and internet access outside of the campus. I, for example, did not own a computer until I became a college professor; I simply could not afford one. I wrote my dissertation on a computer on the first floor of the university's library. I also did not have home internet access until my second year as part of the professoriate. We sometimes take for granted that technological access is universal and normative, but as the costs associated with higher education approach the stratosphere, students are faced with difficult choices: tuition, food, shelter, versus necessary/required technologies.

When COVID-19 forced us into lockdown, many of our students left the safe and reliable technological space of the campus and went back to their home communities, some fairly rural, with little to no internet access. Some also went

back to urban areas, where, due to poverty or other financial burdens, technological access is simply not a priority. How then do we have a conversation about educational access, technological access, and equal educational opportunity, when a large number of the constituents we serve have neither access nor opportunity?

Often in the USA, this technological divide occurs along racial fault lines, although in the *conversation*, race is omitted and replaced with various constructs of poverty. Let us paint a picture:

- At least 15 per cent of US households with school-aged children lack reliable high-speed internet access.
- Among low-income families, 33 per cent lack internet access at home.[1]

For many of us who exist within the confines of the ivory tower, the idea that "there are people out there without internet access" seems unbelievable in the 21st century. After all, our campuses are well wired and well connected; our university libraries can sometimes locate book chapters and journal articles at other libraries hundreds or thousands of miles away, and deliver them to us in a matter of hours; we can email and exchange documents with our not-so-friendly colleagues so as to avoid face-to-face encounters; we can preview books online and order said books from Amazon without ever having to step foot inside a bookstore; we can communicate with friends, relatives and colleagues across the world in real time using myriad communication platforms without having to deal with high telephone bills; we bank; we shop; we date; we self-diagnose medical ailments; and we entertain ourselves, all within the confines of online spaces. Consequently, we sometimes take our virtual/online realities for granted, and we often consider them normative; but what about the rest of society?

Campus, Poverty, and Physical Space

When our campus went completely virtual early in 2020, it forced me to think and reflect critically about my own poverty and accessibility issues when I was a graduate student. What if there had been a pandemic when I was writing my dissertation? Where would I have done my writing? Would I have had computer access? For many students, it is the university campus that provides space, technology, and a sense of normalcy.

Many university libraries double as computer labs and computer access points, and sometimes provide a sense of space that students might not necessarily have

in their regular domestic situations. A few years ago, I remember having a conversation at my university with a student who was a single parent and who shared domestic space with her two young children, her mother, and her boyfriend – all in a cramped two-bedroom apartment. For her, getting a college degree would not only give her a sense of agency, but would also allow her to provide a better life for her children and her family. She relied on the computers in the library to do her assignments, and she relied on the physical library itself to provide a space where she could sit from time to time and read undisturbed while taking a break from her usual "mommy duties." How would such a student cope during the pandemic? Actually, the correct question is, how are students in similar situations coping during the COVID-19 pandemic? With university libraries closed or operating at reduced capacity, the playing field for students who are already disadvantaged, is now far from level. A closed library or a library with reduced operational functions, is simply unable to serve as a technological equaliser for the students who need it most.

With no clear end in sight, it is imperative that as part of the guild of educators and policy makers that constitute higher education, we think methodically, intentionally, and strategically about our next move(s). Recently, I have begun to think about professional responsibilities and expectations in the era of COVID-19. What is the new norm, and will the current *temporary* expectations transcend and become normative when things get back to normal?

Rethinking Pandemic Learning and Student Interaction

Although my classes were already designated as online delivery at the time that my campus went into lockdown mode, I still felt the need to make curricular adjustments. I had all my course content on Moodle, along with study guides, advising information, links to internships and scholarships, and a link to Lee Ann Womack's version of "I Hope You Dance," one of my very favourite motivational songs, that I have included on the final page of all my syllabi for the last couple of years. I had even prewritten emails that Moodle would automatically send out to students at 6 a.m. exactly one week before each test. I had everything perfectly organised before the COVID-19 curveball.

With the campus libraries and computer labs closed, and with the campus off-limits to everyone except designated emergency personnel, my students were now physically all over the place. The classes were offered online, but almost

everyone taking the courses were campus-based students, who saw my online courses as the best options at that particular time. Thinking back about my own poverty-derived technological deficits, it dawned on me that there was the possibility that some of my students might not have adequate technological resources in their new domestic spaces that would allow them to achieve course success.

My first step – a major one for me – was ensuring that my students were able to connect with me regardless of their personal technological access. I took the bold step and offered my cell/home number to all my students. As I was composing the email to students the day the campus closed, I included my cell number, and I thought to myself, "Self, you are going to regret this." Although I had hesitations and reservations, I knew at my pedagogical core that I was doing the right thing by giving students additional access to my off-campus self.

As an intensely private person, who fiercely guards my non-work time, I worried about this newfound access to my personal space that I had given to students. While I received several phone calls from students, and had lots of fruitful discussions about course content, thankfully none of them took advantage of this new access. They would email or text to set up an appointment; they would text immediately before they called, as I had requested, in order to give me a few minutes to adjust my hearing aids; they almost always asked how much time we had for the conversation; and most surprisingly, they almost always asked about my family, and how I was coping with the lockdown, and if I had the opportunity to get fresh air outdoors from time to time. This was never, ever, the norm!

I explained to my students that although the syllabus was an integral part of the academic contract, I was making a few adjustments in order to ensure their academic success. I changed the testing format to a series of short critical response papers. I eliminated the comprehensive multiple-choice exam, since that exam was usually offered in our now closed computer-based testing lab and needed to be proctored. I found it unconscionable to ask students to pay out of their own pockets for online proctoring services that required their own computers or laptops, strong and reliable internet service, and a stable domestic space. Additionally, I also expanded the deadline window for each assignment, so that the students now had more time to complete their assignments and possibly seek out reliable computer access.

In the past, my colleagues and I have complained bitterly about the quality of writing we received from students, and I had pedagogical concerns about the kind of work I would get from students in a time of crisis. When my students

submitted their first "lockdown" assignment, the quality of writing was beyond my expectations. For the most part, the writing was elegant, thought-provoking, streamlined, fertile, sophisticated, and well cited. Prior to the submission deadline a few students had contacted me asking for permission to exceed the stated page limit because they were "really getting into the material" and needed more space to explore their ideas.

With so many grades falling within the 'A' band, I now had to offer explanations to my Department Chair and some others high up on the food chain, as to why the grade profile of my students had skyrocketed. How did I go from the instructor who awarded very few grades within the 'A' band – the instructor who was often described as a hybrid of Miranda Priestly, Violet (the Dowager Countess of Grantham), Maurice Phipps (Laurence Fishburne's character from Higher Learning), and Maxine Waters – to being the instructor who was seemingly "giving away" 'A's?

It seemed that even though my academic and grading standards remained high, the students, whether due to boredom, restlessness, too much time on their hands, or a fear of the unknown, immersed themselves into the course material and developed a level of intimacy with intellectual concepts and ideas that I had not seen in twenty years. Not surprisingly, those grades represented the highest cumulative course grades I had ever given, and at the same time, my spring 2020 teaching evaluations were the best I had ever received, only recently topped by the fall 2020 evaluations. I wondered, but certainly not aloud, if higher education was on to something *new* and great.

Supporting Students in the Age of COVID-19

There is a delicate balance between our reliance on technology and the educational products that we offer, provide, and peddle. In December 2020 I transitioned into a new role at my university, where my new focus is now advising and academic advising policy. While I still teach, my substantive role now falls under the umbrella of student support services.

In the past, when my substantive role was primarily a member of the pedagogical workforce, students would drop by my faculty office for advising and to discuss course matters. Often, there would be a line outside my office stretching into the corridor. I've had students with appointments who waited up to fifty minutes beyond their scheduled appointment time to see me, especially during

peak times such as registration, mid-terms, and near graduation. When I would finally get to see a student who had been waiting for fifty minutes, I would apologise to that student, knowing that they had a visual frame of reference for the delay. They were in the line waiting, and though impatient and exasperated, they saw first-hand why there was a fifty-minute delay: there were several students in front of them, and I, being a conscientious instructor/advisor, was trying to solve as many issues as possible in one visit. That student, perhaps prone to hyperbole, might then construct a narrative about a line stretching around the building, along with a three-hour wait. At least the hyperbolic line stretching around the building, which over time would become "stretching all the way to the state line," explained the long wait. That kind of hyperbole was perhaps a win-win for both of us: the students waited in line so maybe, just maybe, I was offering good advice.

Now that I have a new role and my advising has migrated online, there are no face-to-face appointments and there are no lines, so students do not see other students waiting; everything is done via technology. A student who sends me an email with a course-related question, or a question related to graduation requirements, expects a response almost immediately. Such a student has no visual frame of reference for the delay. They do not see long lines; they do not see my inbox with 150 unanswered emails from other students containing questions that are just as important as theirs. While this was an issue prior to the great migration of education to online modalities, COVID-19 has certainly made the situation even more dire.

My students and advisees who previously viewed face-to-face education in terms of a "nine-to-five" arrangement, now see my role as someone who is expected to respond to their emails within ten minutes, even at 2 a.m.! Recently, a student sent me an email at 4:27 p.m. on a Friday evening, three minutes before the office's scheduled closing time. There were twenty-three emails ahead of that student's email and I addressed thirteen of those emails before shutting down my computer and leaving the office at approximately 7:21 p.m. I returned to the office the following Monday to find a complaint from the student: I was non-responsive to her emails. The student's one email suddenly became "several emails" and the time between her writing of the email at 4:27 p.m. on Friday and Monday morning – approximately sixty hours (including Saturday and Sunday) – suddenly became "several weeks." Did I experience similar situations prior to COVID-19? Yes! Has it become worse since COVID-19? Absolutely!

Back in the days of face-to-face encounters with students, I had clearly stated office hours, even though I had no objection to students dropping by my office without appointments. I actually looked forward to those unscheduled meetings with students as they often served as pedagogical sounding boards for my teaching and research. In the era of Zoom however, I find my office hours becoming way more fluid. The thought of reserving Tuesdays and Thursdays from 10 a.m. to 2 p.m. to meet with students, has been replaced with the expectation that I should be readily available and accessible to students *most* of the time. This is not practical; a balance has to be found, taking into consideration the present pandemic circumstances, the social and pedagogical needs of students, as well as the professional, research, and personal responsibilities of faculty and staff.

These days, whenever I meet with students via Zoom, I begin with icebreakers. I ask how they are doing, I talk about the weather (my very favourite subject to talk about in Louisiana), and since I play Helen Reddy's version of "Delta Dawn"[2] in my office several times per day, the students will invariably ask about the music in the background; perhaps shocked that a Black man from Jamaica is humming to a Country and Western song as he straightens his papers for a Zoom meeting. There is a level of intentionality in asking my students how they are doing as we banter before getting to the academic business at hand. A few times a week I walk from my office near the football stadium to the food court inside the Student Union on the other side of campus. I visit the same food establishment each time and I order the same salad on every visit. The most important element of my visit is interacting with the three ladies who make my salad, all of whom I know by name. Hearing, "How are you today dear?" "Did you walk up those steps, you seem out of breath?" "You need to drive from your side of the campus to here; it's a long walk!" "The weather needs to make up her mind!" are some of the things that truly make my day. Additionally, my salad is always larger than everyone else's. I operate on the assumption that since I appreciate and look forward to my "squad" from the food court asking me about my day before taking my order (the exact same order every day), my students might also appreciate what we in Louisiana call acts of Southern kindness.

By asking students how they are doing, I am able to glean information that might require me to put certain academic interventions in place or position myself to become an advocate for that student while concurrently addressing their degree completion path. It also provides me with a fairly accurate idea of some of the challenges that our students face as they sojourn through the pandemic.

Empathy and a smile have become tangible gifts we can offer to each other when the road ahead seems unclear.

Preparing for the New Reality

As I try to strike a balance between advising and scholarly responsibilities on a university campus, I am usually up late at night trying to keep up with my writing and research. A few times I have responded to emails at 2 a.m. when I needed to take a mental break from writing about the intellectual complexities of nineteenth century American Literature. While I do this of my own accord, simply because I like addressing emails as soon as they come my way; this should never be viewed as an expectation or a norm. I ended up having to put an end to this practice of responding to emails in the wee hours of the morning because a few times after responding to a 2 a.m. email, I immediately received two more emails from the same student(s) within minutes, with the expectation that I would respond right away.

Students sometimes do not remember or realise that those of us who teach and provide support services for them on university campuses are also human, and that our lives are not always axial to the campus. A few years ago I was picking up groceries, and as I was moving from aisle to aisle in the supermarket, one of my students was walking behind me and using his cell phone to record what I had in my shopping cart. I turned around and caught him and when I asked him why he was so interested in the contents of my shopping cart, he simply said, "I did not expect to see you in a supermarket." Clearly, this student was under the impression that I did not eat or do things that *ordinary* people do. He obviously thought that all I did was sit in a room and read books and grade papers when I was not teaching. He somehow thought that my entire life, my entire being, belonged to the university. In an era of technological connectedness where instantaneous responses are becoming normative, how do we as instructors and student support personnel impart to our students, the virtue of patience? How do we compartmentalise our campus lives from our personal lives?

COVID-19 forced me to step up my technological game, and the pandemic itself has highlighted my technological deficits. Occasionally, some students try to capitalise on these deficits. Not too long ago, a student, who probably thought I was technologically daft, sent me an email stating that he had completed a test via Moodle Quiz, but somehow he was not seeing a grade for that test, and the

missing grade was causing him *great* anxiety. He went on to state that at the end of the test, Moodle indicated that he had earned a C on the test. That made it almost believable, since someone with a "missing" grade who did not actually *do* the test, would probably claim that they had earned at least a B. The student went so far as to send me an email thanking me for being a "cool and understanding professor."

With a swollen head from being called a "cool professor," I sent a response telling the student that I saw no record of him taking the test, but that I would ask Information Technology to see if they could locate the missing test. The student responded by asking if he would be allowed to retake the test if his "missing" test/grade was not found. I proceeded to tell the student that Moodle archived everything on its platform for at least a few years and if the test was done, Information Technology would locate it in a matter of minutes. I apologised to the student for the missing grade and the anxiety it was causing him, and I even promised to walk in the rain to the Information Technology office to help the IT experts locate his test. Although I suspected that this student was having somewhat of a free and easy relationship with the truth, I gave him the benefit of the doubt and I contacted the Information Technology office. My initial hope was that the student would see the names of the higher-ups who were copied on the email and he would quickly redirect and say something like, "I made a mistake; it was another test that I took, not yours." That never happened. An hour or so later, IT responded and informed me that there was no evidence that the test was taken. I quickly emailed the student and with the news from IT, and I pointed out that with all the technology around us, resulting in technological confusion, he probably took a test for another course and mistakenly thought he was taking my test. I then offered to have a Zoom meeting with him to discuss options for improving his course grade.

I eventually had a Zoom meeting with the student, and as I contemplated asking in a very pastoral way if there was anything he needed to tell me, he blurted out, and said something like, "I did not do the test. I lied. And I know that you know that I lied. I got way too deep into the lie and I could not escape it." He then went on to tell me that he did not realise that I was so tech savvy. The fact is, Moodle is able to make someone like myself who still writes handwritten letters, and who writes everything in longhand before transferring it to the computer, look tech savvy and sophisticated.

I was able to have a rather honest and truthful conversation with the student.

Like so many of us dealing with pandemic fatigue, he simply felt overwhelmed. I, too, have felt overwhelmed. The student felt guilty for being overwhelmed. He had no financial burdens, he had a stable domestic situation, and he had been successful in outrunning COVID. Yet, the normative uncertainty engendered in him sudden and frequent moments of vulnerability. Looking at that student via Zoom, I felt like I was staring into a mirror. I had identical feelings and similar moments of angst. Our meeting made me realise that at times, rehabilitation trumps retribution, and that the act of listening allows you to walk a mile in someone's shoes. As I made peace with the situation and gave the student a second chance, since the idea of the university is often marketed as a place for second chances, I confessed to the student that his initial hunch was correct; I am actually not tech savvy. He responded, "I kind of figured; I've heard you say, '*the* Moodle' on several occasions." I simply smiled. When I lived in Atlanta, anyone who referred to the city's transit system as "*the* MARTA" instead of simply "MARTA," was obviously from out of town. Who would have thought that the use of the definite article could end up being a cultural and technological signifier?

These days, whenever I have conversations with colleagues, I usually articulate my concern about the tensions between new professional expectations and *the* "new" university reality. For students who started college in August 2019, this new virtual collegiate reality is mostly all they know; but for the students who started in August 2020, *this is their only collegiate reality*. I often ask if we will ever return to normal, or if the present reality has already morphed into the new normal. Will the college campus and the college experience as we once knew it, ever be the same, *or*, was the university as we previously knew it, actually NOT normal, but we are simply conditioned to relegate to normalcy, anything we have done repeatedly at least three times?

As we all look forward to a post-pandemic life, I reflect on what has been my parting gift to students for the last several years. All my online Moodle syllabi usually end with lines from the song, "I Hope You Dance" by Lee Ann Womack[3]. This song has kept me going, and kept me hopeful, and kept me sane, even in the worst of times:

> I hope you never lose your sense of wonder,
> You get your fill to eat but always keep that hunger,
> May you never take one single breath for granted
> God forbid love ever leave you empty handed
> I hope you still feel small when you stand beside the ocean,

Whenever one door closes I hope one more opens,
Promise me that you'll give faith a fighting chance,
And when you get the choice to sit it out or dance.

I hope you dance . . . I hope you dance . . .

I hope you never fear those mountains in the distance,
Never settle for the path of least resistance . . .

In the sea of uncertainty surrounding higher education, I have taken my cue from Lee Ann Womack and I have chosen to dance. I have also chosen patience, and I have chosen to offer a listening ear whenever there is talk of change. I have opted for an enlightened approach. I remind myself that the idea of the university is one of enlightenment; a purveyor of enlightenment that concurrently serves as a symbol of society's enlightenment.[4] Perhaps a by-product of the pandemic is a re-examination of the role of the university in the 21st century and a realisation that eventually, *we* will need to change how we go about the business of education. While I am sometimes resistant to change because I am stubborn and set in my ways – the oxymoronic pleasant mild-mannered curmudgeon of sorts – I am well aware that change is a necessary part of growth. The pandemic has forced me to come to terms with my own biases about online learning. My perceptions have changed. Online learning can be just as rigorous as the face-to-face classroom and should be viewed as part of the larger project of democratising the ivory tower. Online learning is also affordable learning, and affordable learning is a critical part of the accessibility project. Accessibility democratises education. Beyond that, I have begun to take the enlightened approach that the higher education landscape is much like language, not stagnant, not static, but very dynamic and always evolving and giving birth to itself.

Notes

1. Monica Anderson and Andrew Perrin, "Nearly One-in-Five Teens Can't Always Finish Homework Because of the Digital Divide." Washington, DC: Pew Research Center, 2018.
2. Helen Reddy, "Delta Dawn." *The Woman I Am: The Definitive Collection*. Capitol, 2006. CD.
3. Lee Ann Womack, "I Hope You Dance." *I Hope You Dance*. MCA Nashville, 2000. CD.
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Faculty of Social Sciences Student Satisfaction with Emergency Remote Teaching at The UWI during the COVID-19 Pandemic

TREVOR A. SMITH AND SUZETTE A. HAUGHTON

Abstract

The study utilised the Expectation Confirmation Theory as the basis for addressing students' satisfaction with Emergency Remote Teaching (ERT) in the Faculty of Social Sciences (FSS) of The University of the West Indies (The UWI), during the COVID-19 pandemic. The work was prompted by Hodges et al. (2020) who indicated that online/remote learning carries a stigma of being lower in quality than face-to-face and these hurried moves to do remote teaching may confirm this negative perception. Utilising survey design and factor analysis with descriptives and a final sample of 115 students, the study found that student engagement, student access, connectivity, and communication, along with recorded materials and online examinations were the satisfaction areas to be focused on in the ERT environment. Recommendations were offered in each of the identified areas with focus on student engagement, connectivity, and communication where there were high levels of dissatisfaction. This study provides pedagogical guidance to lecturers who are challenged in the ERT environment.

Keywords: Emergency Remote Teaching (ERT), student satisfaction, online learning, university

Introduction

In the competitive marketplace of higher education and decreasing educational subventions from governments, student satisfaction has become a desired outcome of the modern university. Student satisfaction is important if universities are to sustain their student intake and grow their numbers (Elliott and Shin 2002).

The COVID-19 pandemic has created a global crisis in the delivery of higher education (Aguilera-Hermida 2020). This problem has led to the onset of Emergency Remote Teaching (ERT) methods in universities across the globe. Emergency Remote Teaching involves the fully remote teaching solutions for instructional delivery and represents an alternate delivery mode due to crisis circumstances (Hodges et al., 2020). ERT may be done synchronously, that is, live delivery of lectures, or asynchronously, that is, recording of lectures for later viewing. These emergency measures due to COVID-19 may continue longer than expected and it is not clear whether things will go back to normal at the end of the pandemic (Rahiem 2020a). Notwithstanding the disruption from COVID-19, student satisfaction remains important in higher education as global trends are indicating a reduction in students' registration (de Wit and Altbach 2020).

The University of the West Indies (The UWI) was rated by Times Higher Education among the top 5 per cent of the best universities in the world in 2019. As such, maintaining quality assurance, including student satisfaction, has become a heightened priority of the university. In its teaching response to COVID-19, The UWI suspended classes, both face-to-face and online deliveries, and embarked upon this ERT alternative as a temporary measure.

This study assesses the Faculty of Social Sciences (FSS) student satisfaction with ERT at The UWI during the COVID-19 pandemic. The study tests the Expectation Confirmation Theory in determining students' satisfaction as a function of expectations, perceived performance and disconfirmation of beliefs (Oliver 1977). The study uses the survey method to ascertain students' attitudes and responses to each of the satisfiers/dissatisfiers of remote teaching. In this study, ERT is associated with the crisis of the COVID-19 pandemic during which all universities opted to move their courses online instead of continuing face-to-face delivery in order to safeguard the public health of their students and lecturers from the deadly virus. Although ERT resembles online teaching on the surface, educational instructional specialists have made a sharp distinction between the two modalities (Aguilera-Hermida 2020). In effect, online teaching refers to

careful instructional design and planning using systematic model designs and development. Such a systematic process positively impacts on the quality of the instruction. In contrast, ERT involves quickly moving courses online without taking this systematic process into account.

Purpose

The purpose of this study is to identify the satisfiers and dissatisfiers of the FSS students with ERT during the COVID-19 pandemic, as well as to determine the extent of the satisfaction and dissatisfaction of these students during this period. The research on the critical matter of delivering higher education amid the COVID-19 pandemic is quite timely as it seeks to address a current situation and provides pedagogical guidance to lecturers who are challenged in presenting their lectures using ERT. It is expected that the FSS will benefit from the insights generated from this study on teaching and learning in an emergency remote environment.

Related Literature

The Expectation Confirmation Theory for grounding this study is discussed in the first section of this review. This is followed by the literature on the satisfiers/dissatisfiers in the ERT environment which depict the themes of online student access, connectivity, communication, student engagement, recorded materials, and online examinations.

Expectation Confirmation Theory

The Expectation Confirmation Theory posits that satisfaction is a function of expectation and perceived performance. Oliver (1980) developed the Expectation Confirmation Theory, which originated in marketing and is widely used in consumer behaviour and service marketing. It is also used to explain satisfaction expressed by users of information systems (Bhattacherjee 2001; Bhattacherjee and PremKumar 2004; Thong, Hong and Tam 2006).

Five constructs are identified within the literature as forming part of the Expectation Confirmation Theory. These are expectation, performance, confirmation, satisfaction, and re-purchase intention (Oliver 1980). According to the Expectation Confirmation Theory, post-purchase satisfaction is achieved when expectation

meets perceived performance. However, if a product exceeds expectations – a process known as positive confirmation – then there will be post-purchase satisfaction. On the other hand, if a product falls short of expectation – a process known as negative confirmation – then consumers will be dissatisfied with that product.

An important aspect of Expectation Confirmation Theory concerns the issue of re-purchase intention formed by satisfied consumers. For a satisfied consumer to decide on a re-purchase intention there are at least four factors that must precede such an intention (Oliver 1980; Bhattacherjee 2001). First, an expectation of a product prior to purchase is formed by the consumer. Second, consumers experience the product or service by using it. Third, consumers weigh their original expectation with the perceived performance of the product to confirm or refute their expectations. Fourth, consumer satisfaction is therefore formed based on their confirmation level and expectation.

Expectation Confirmation Theory focuses on the customer's attitude towards a product or service and the customer's perception of the performance of the product or service. These constructs in combination shape the customer's repurchase intention. However, there are limitations to the Expectation Confirmation Theory that must be highlighted. One such limitation is the fact that consumers may not have any specific or defined expectations but may still intend to or even purchase a product or service. Further, even in cases where consumers have expectations, these expectations may vary significantly among customers.

Expectation Confirmation Theory provides a good foundation for explicating student satisfaction/dissatisfaction with ERT, as the theory purports that satisfaction, (that is, the students' satisfaction), is a function of expectation (the students' preconceived belief in the course offering) and perceived performance (the effective delivery of courses on offer by the FSS).

Student access

The literature on online learning has noted wider student access as a key benefit of online learning. Access through online teaching provides flexibility and accessibility of educational opportunities for learners from various geographical spaces and backgrounds (Delaney and Fox 2013; Roll, Russell, and Gašević 2018). Online access also provides opportunities to adult learners who are unable to attend traditional face-to-face classes (Dumford and Miller 2018). Access to learning

through the online modality is associated with lower student completion rates than the traditional alternative (Woodley and Simpson 2014). Lower completion rates in the online environment can be attributed to poor time management on the part of students, unrealistic expectations, a feeling of isolation and a view that the institutional culture values online students less than their traditional counterparts (Brown et al. 2015; Mallman and Lee 2016; Nichols 2011; O'Shea, Stone, and Delahunty 2015).

Student engagement in the online environment is driven by the quality of student-lecturer relationships (Long, Ibrahim, and Kowang 2014). When using the online modality, a strong teacher presence is central to students' motivation and to the feeling that they are cared for as well as to maintain their sustained curiosity. For this engagement, Anderson et al. (2001) argue that the lecturer is required to review the student's work, provide feedback, stimulate discussions and encourage participation. Moreover, even with the online modality, the lecturer can engage the student in meaningful participation as students do not view online delivery as a barrier to their engagement (Dumford and Miller 2018).

Connectivity and communication

An effective internet infrastructure is critical to the successful delivery of online/remote lectures. In addition to internet access, sufficient bandwidth is required to fully utilise the available features on the remote platforms. Some rural areas in developing countries lack broadband networks and affordable internet service. Lack of internet access is also a problem for some students from lower socioeconomic backgrounds. Those who cannot afford to pay for or access the technology may have to temporarily withdraw from their studies and hence the university could eventually lose these students. As internet access is usually provided at a cost, some students may not be able to afford access or have weak internet connectivity and therefore their ability to participate in the remote learning environment may be hampered. This is certainly the case in many institutions of higher education for some students (Senior 2010).

At a minimum, lecturers and students need to be functional users of computers in order to operate in a remote teaching-learning environment. Moreover, they must be able to use the online platform at their institutions, be able to search the World Wide Web and use email technology. Expectations concerning the turn-around time that lecturers have to answer students' queries in online teaching

remain high. Students may have expectations that lecturers should respond immediately but lecturers may view this as unrealistic with the myriad issues that are present in the ERT environment. In this context, a communication guide within the lecturer's course outline could be used to manage expectations by specifying how students should communicate to the lecturer and the timeframe in which they can expect to receive a response. For example, if students are communicating via email, they should always indicate their course code and, depending on the nature of their email, they should include their identification numbers (IDs). Petillion and McNeil (2020) state that clear communication along with flexible teaching methods are important to reduce the problems faced by students in the ERT environment. This communication may take place through online chats, discussion forums and inbox messaging.

Student engagement

Student engagement practices have been central to the teaching and learning environment in many higher educational institutions (Robinson 2012). This involves the inclusion of the students' feedback in plans and programmes (Robinson 2012). Student engagement is essential for learning, particularly in the online mode of delivery where teaching takes place outside the traditional classroom (Malan 2020). Lu et al. (2013) found that students' academic engagement correlates with their satisfaction with university learning, intellectual skills development, social communication, and self-cognition. Hence, student engagement is far-reaching in the ERT environment.

There are four paradigms of student engagement in the existing literature (Kahu 2013). These are the behavioural, psychological, sociocultural, and the holistic perspectives. The behavioural perspective addresses the students' conduct and the institutional practices in higher education. The psychological perspective discusses engagement in the context of the students' psychosocial processes. The sociopolitical dimension addresses the sociocultural issues and the holistic perspective embodies the other three perspectives on student engagement.

Student engagement encompasses the student voice, student participation and the student's role as an agent of change. Robinson and Taylor (2007) have stated that student voice refers to a situation in which students are allowed to voice their opinions on the aspects of their school lives that affect them. Cheminais (2008) notes that this voice gives the student an opportunity to participate in the

decision making process within their schools. As such, students are encouraged by institutions to be active partners in the ERT teaching learning process. This is done through students' evaluation of courses and lecturers, their participation on faculty boards and the general input they provide in teaching and learning through a suggestion drop-box.

Rudduck and Flutter (2004) argue that student participation involves student membership on university administrative committees at their institutions and that they must be respected as contributors. They must be given active and direct involvement in their institution's matters at some level. Hence, the idea of students as participants requires them to be represented on committees within the institution's system.

Students as change agents involve students' active engagement with change processes and management in their institutions. This, according to Dunne and Zandstra (2011), requires more student-driven agendas and less institutionally focused activities. Kay et al. (2010) argue that this engagement requires more proactive rather than reactive roles on the part of students.

Recorded materials and online examinations

Recorded Materials

Recorded materials that are stored on remote teaching platforms are necessary for asynchronous learning. In the asynchronous mode, course materials are prepared so that students can access them at any time they choose. Recorded materials used in this way provide flexibility and increase accessibility to students. It allows students to access past course/class materials. It may also increase students' knowledge and performance as they may have more time to engage with and listen to the recordings. However, with recorded materials, students may misunderstand the content and when listening to the recordings they will not be able to probe by asking questions. Notably, recorded materials will provide the course content but it is highly impersonal and not as engaging as synchronous delivery (Mnih et al. 2016).

Online Examinations

Online examination refers to examinations carried out digitally to test students' knowledge of a given subject area. This allows students to undertake their online

examination in their own space, with their own device and at a convenient time. For online examinations, a browser and internet connectivity are required for students taking the examination (Jacob and Radhai 2016). This is problematic for those students who are challenged with connectivity issues.

Online examination, which is carried out digitally with fewer controls, contrasts with the traditional assessment method, which involves students' using pen and paper to answer examination questions that are administered by invigilators. Online examination has a conservation benefit by safeguarding the environment, since physical paper is not required in the administration of these examinations. This also supports a faster evaluation process and is more cost effective as it eliminates labour, such as invigilators and reduces the time required to administer and oversee the online examination when compared with the traditional process of examination (Jacob and Radhai 2016).

Despite these advantages, online examination also has limitations. In the digital format, online examinations are similar to open-book examinations, as the setting is not usually controlled and students can access external material to help with their online examinations. Another limitation is that online examinations in the ERT environment will result in disruption in the method of taking examinations and require a transition process for students to become familiar with these examinations (Jacob and Radhai 2016). Infrastructure limitations also affect online examinations. These include internet connectivity and power outages which affect students. In addition, other technical problems as well as cheating are some of the challenges that impact online examinations.

Closing comment on literature

The selected review of literature provided the theoretical frame and related themes for guiding this study. Some of the salient matters in remote teaching and learning that were found to be relevant in the context of the pandemic were discussed.

Methodology

This study utilised a descriptive survey design and qualitative brainstorming sessions for undertaking the research. Two research questions were addressed:

1. What are the satisfiers and dissatisfiers of the Faculty of Social Sciences (FSS) students with ERT during the COVID-19 pandemic?

2. What is the extent of the satisfiers and dissatisfiers among the FSS students with the ERT during the pandemic?

Method

The method utilised for addressing this matter of student satisfaction with ERT in the FSS consisted of six steps. First, two online brainstorming sessions were held to identify students' satisfiers/dissatisfiers with the ERT offering in the Faculty. There were seven students in the first brainstorming session and six in the second – both groups consisted of different sets of students. The participants selected for these sessions were FSS students who had taken their first set of remote courses during the April to August 2020 period and were currently taking remote classes in the semester of September to December 2020. The decision to use brainstorming sessions in this preliminary assessment to identify satisfiers/dissatisfiers was based on the dramatic impact of the COVID-19 pandemic on the teaching and learning experience, so it was felt that primary research was required as the secondary literature would not have been adequate for addressing this novel situation.

Second, a Microsoft Word transcript was produced from the recorded brainstorming sessions. This transcript was analyzed using a basic thematic approach and twenty-nine satisfiers/dissatisfiers were identified. After the narrative data was assessed on the popular sentiments expressed by the students and the data cleaned, twenty-six satisfiers/dissatisfiers resulted from the qualitative analysis.

Third, a cross-sectional designed survey instrument was developed from the list of twenty-six items. This instrument was piloted with a small sample of approximately thirty students and two of the items were dropped as they did not meet the face validity standard. The final instrument therefore consisted of twenty-four items. These items were each anchored on a five-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. Examples of these satisfiers/dissatisfiers are as follows: "I am disengaged in remote teaching sessions," "The internet connections are not reliable," "Some lecturers do not demonstrate effectively online," and "Remote sessions eliminate the hassle of getting to classes." A filter question was added to the survey instrument for ensuring that only students who had taken remote classes in FSS in the previous semester and were currently taking classes in the Faculty were eligible to respond to the survey. Questions on demographics were also added to the instrument for describing the sample to be studied.

Fourth, an electronic mode of administration was used for carrying out the survey. In doing so, the survey was posted on the online learning platform, and a convenience sample of students completed the survey and returned it via email to the survey administrator. These students were advised that their participation was voluntary and were also assured of anonymity and confidentially. The final sample consisted of 115 respondents, 83 per cent female and 17 per cent male. The distribution across the departments was Mona School of Business and Management – 55 per cent, Department of Government – 30 per cent, Department of Sociology, Psychology and Social Work – 14 per cent, and Department of Economics – approximately 2 per cent. Ninety per cent of these respondents were undergraduate students and 10 per cent graduate students. Eighty-five per cent of them were registered part-time and the other 15 per cent full-time. Eighty-seven per cent of these students were between ages 18 and 25 years, 11 per cent between ages 26 and 40 years and the remaining 2 per cent were over 40 years old. (*See* table 1 for description of sample with demographics.)

Fifth, Factor Analysis using SPSS version 20 was the statistical technique employed for grouping the twenty-four variables of interest. This technique is suited for analysing inter-relationships between variables and grouping them into fewer factors. In conducting this analysis, the primary assumptions advanced by Hair et al. (1998) for using the Factor Analysis technique were checked:

i. Sample size ≥ 100
ii. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy > 0.50
iii. Bartlett's Test of Sphericity with significance α <.05

The principal component analysis with the varimax rotation was then applied to the items of interest to determine the underlying items that were associated with each factor.

Results

The results are discussed in two sections – findings from the factor analysis and findings from the descriptive analysis.

Findings from factor analysis

The findings from the factor analysis supported the use of this technique vis-à-vis

Table 1. Description of sample

	Frequency	Per cent	*Cumulative Per cent
Gender			
Male	20	17.5	17.5
Female	94	82.5	**100.0**
Total	**114**	**100.0**	
Department			
Mona School of Business and Management	63	54.8	54.8
Department of Government	34	29.6	84.3
Department of Economics	2	1.7	86.1
Department of Sociology, Psychology and Social Work	16	13.9	**100.0**
Total	**115**	**100.0**	
Level of Study			
Undergraduate	104	90.4	90.4
Graduate	11	9.6	**100.0**
Total	**115**	**100.0**	
Registration Status			
Part-time	17	14.9	14.9
Full-time	97	85.1	**100.0**
Total	**114**	**100.0**	
Age			
18–21	68	59.1	59.1
22–25	32	27.8	87.0
26–30	8	7.0	93.9
31–40	5	4.3	98.3
41–50	2	1.7	**100.0**
Total	**115**	**100.0**	

**Note:* Cumulative per cent represents the running totals

sample size of 115, which is greater than the 100 required, KMO of .827 – which is greater than the minimum .50 required, and Bartlett's Test for Sphericity with chi square of 863.964 and significant α =.000 – which satisfies the required level of significance of α <.05.

On the analysis of the twenty-four items, five items with factor loadings of <.50

were dropped to generate a more robust model, and a four-factor solution with nineteen items was extracted. These factors are:

i. Student Engagement,
ii. Student Access,
iii. Connectivity and Communication, and
iv. Online Exams and Recorded Materials.

Notably, only factors with eigenvalue >1 were extracted (Hair et al., 1998) and 60 per cent of the total variance was explained by the four factor model (*see* table 2.)

Table 2. Satisfaction factors and underlying items

Variables	Factor Loading	Eigenvalue	% of Variance	Cumulative Variance
Student Engagement				
Students disengaged in sessions	715	5.592	29.431	29.431
Students longing for physical interactions	.579			
Students not able to focus as much as face to face	.704			
Class discussions are not engaging as face to face	.767			
Students are learning less with remote teaching	.613			
Some lecturers not presenting well with remote	.642			
Students not participating much with remote	.764			
Some lecturers do not demonstrate well online	.554			
Student Access				
Remote makes attending classes easier (R)	.658	3.125	16.446	45.877
Remote makes me have more energy in class (R)	.650			
Remote allows more opportunities for multitasking (R)	.690			
Remote eliminates hassle of getting to class (R)	.784			
Connectivity and Communication				
Internet connection not reliable	.592	1.495	7.870	53.747
Slow feedback from UWI admin staff	.777			
Lecturers do not answer questions online	.520			
Frustrating when staff do not respond to email	.666			
Lecturers need to use online chat more often	.590			
Recorded Materials and Online Exams				
Recorded sessions are useful feature of remote (R)	.696	1.259	6.624	60.371
Students happy for the 2-day access to exams (R)	.766			

Findings from descriptive analysis

Descriptive statistics were generated on each of the four factors and the results are presented per factor.

Student Engagement

The analysis on student engagement has indicated that there were high levels of dissatisfaction on this factor, ranging from a low of 41 to a high of 67 per cent. The top four dissatisfiers were that students were longing for physical interaction (67% of the students), students felt that they were not as focused as they were in face-to-face classes (62%), students felt that were not engaged enough to participate in the remote setting (58%) and students felt that some lecturers were not presenting effectively in the remote environment (57%) (*see* table 3).

Table 3. Student engagement

	Student Engagement	Physical Interaction	Student Focus	Discussions Engaging	Learning	Lecturer Presentation	Student Participation	Lecturer Demonstration
Dissatisfied	40.9	67.0	61.7	49.6	47.4	57.4	58.3	56.5
Neutral	27.0	13.0	13.9	16.5	22.8	23.5	14.8	20.9
Satisfied	32.2	20.0	24.3	33.9	29.8	19.1	27.0	22.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

The combined total of students who were either dissatisfied or neutral ranged between approximately 7 per cent and 80 per cent across all attributes of student engagement (*see* dashboard in figure 1).

Student Access

The findings on student access have indicated relatively high levels of student satisfaction with three of the four items. In this case, students were satisfied with having no hassle in getting to class afforded by the remote setting (68% of students), students were satisfied with the ease of attending classes (67% of students) and these students were also satisfied with the opportunity that remote teaching allows for multitasking (51%). The students, however, were not quite satisfied

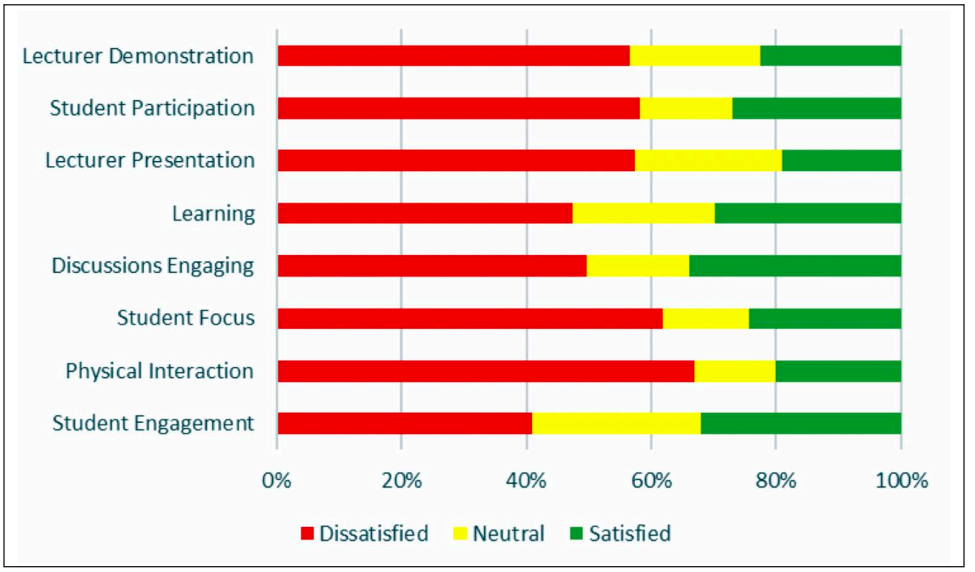

Figure 1. Student engagement dashboard

with their own energy levels when sitting in remote classes – only 28 per cent of students were satisfied (*see* table 4).

Table 4. Student access

	Ease of Attending Classes	Student Energy Level	Opportunity for Multitasking	No Hassle Getting to Classes
Dissatisfied	19.1	44.3	26.3	18.3
Neutral	13.9	27.8	22.8	13.9
Satisfied	67.0	27.8	50.9	67.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

At a glance, the overall findings indicated that students were generally satisfied with the levels of access they have with remote teaching (figure 2).

Connectivity and Communication

The findings in the area of connectivity and communication have indicated high levels of student dissatisfaction on at least four of the five attributes. The main dissatisfiers were that The UWI faculty and staff, including lecturers and administration, were not responding to students' emails (81% student dissatisfaction),

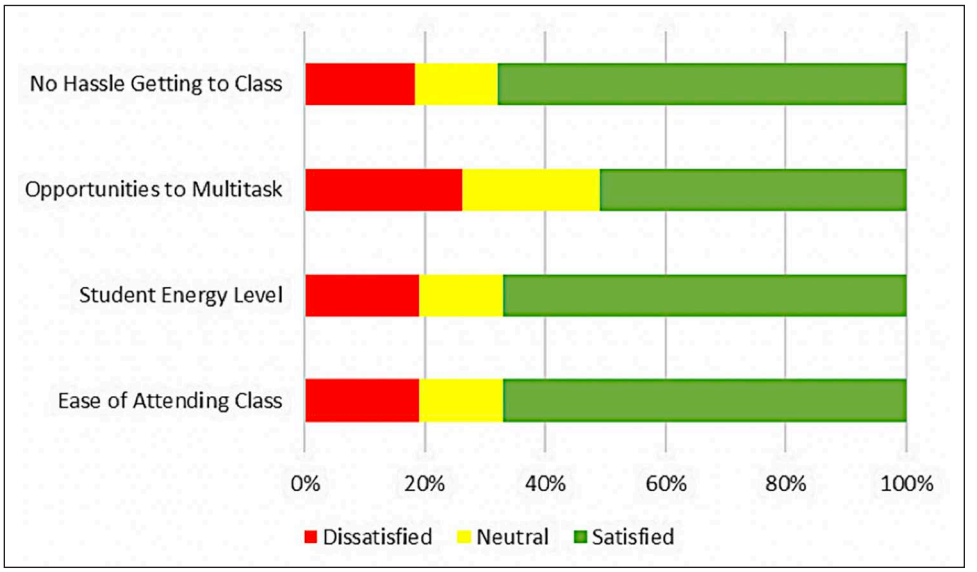

Figure 2. Student access dashboard

feedback that students received from administration (68% student dissatisfaction), unreliable internet connection (64% student dissatisfaction) and lecturers use of online chat (62% student dissatisfaction). However, only 32% of students were dissatisfied with lecturers' response to students' questions online (*see* table 5).

Table 5. Connectivity and communication

	Internet Connection	Feedback from Admin	Lecturer Answer Questions Online	Staff Response to Email	Lecturer Online Chat
Dissatisfied	64.0	67.8	31.9	80.9	61.7
Neutral	7.9	13.9	30.1	13.0	25.2
Satisfied	28.1	18.3	38.1	6.1	13.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

The results, at a glance, have indicated that there were relatively low levels of student satisfaction on all attributes of connectivity and communication (figure 3).

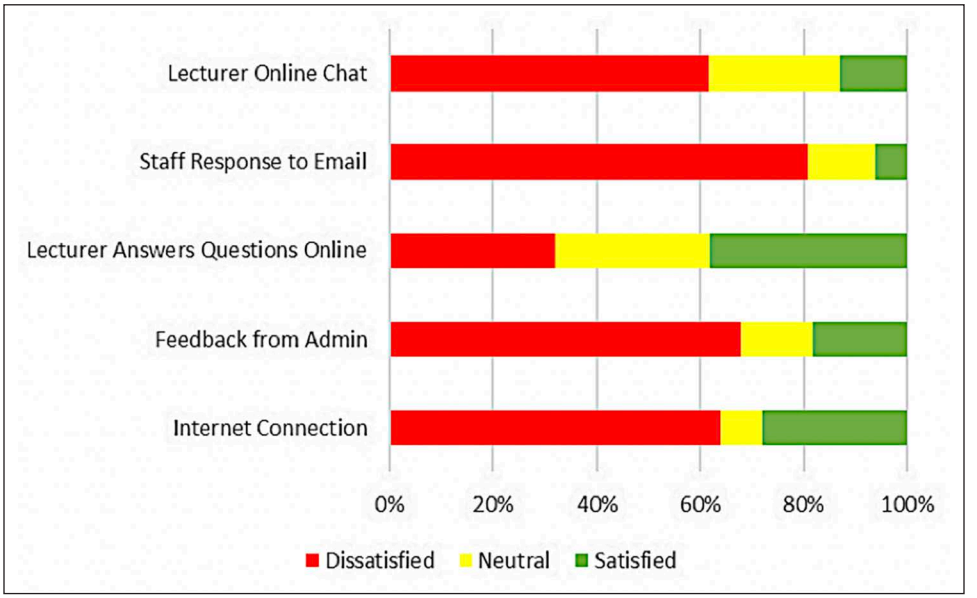

Figure 3. Connectivity and communication dashboard

Online Exams and Recorded Materials

The results on online examinations and recorded materials have indicated that there were high levels of student satisfaction on the two reported measures of recorded sessions (90% student satisfaction) and two-day access to exam (87% student satisfaction) (*see* table 6).

Table 6. Recorded sessions and 2-day access to exam

	Recorded Sessions	2-Day Access to Exam
Dissatisfied	7.0	6.1
Neutral	3.5	7.0
Satisfied	89.6	87.0
Total	**100.0**	**6.1**

These high levels of satisfaction are displayed graphically in figure 4.

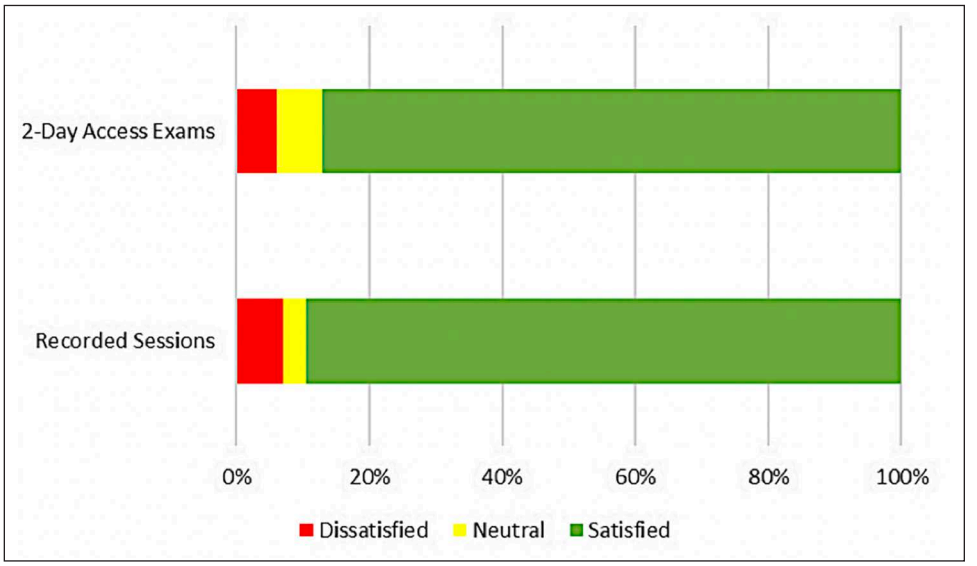

Figure 4. Recorded materials and 2-day access to exam

Discussion

The study sought to determine the student satisfiers/dissatisfiers with the emergency remote teaching environment in the Faculty of Social Sciences (FSS) at The UWI. The work was prompted by the prior research of Hodges et al. (2020) who indicated that online learning carries a stigma of being lower in quality than face-to-face, albeit not supported by research, and these hurried moves to do remote teaching will confirm this negative perception if students become dissatisfied due to unmet expectations. The FSS at The UWI was therefore singled out as a good place for this study as expectations were very high in 2019, before the pandemic, when The UWI was rated among the top 5 per cent of the best universities in the world.

The Expectation Confirmation Theory was utilised for explicating the findings of this study which addressed students' satisfaction with ERT and the theory presents an epistemological view of satisfaction in the context of expectation. The theory therefore aligns with the study on students' satisfaction and deemed applicable to the situational context. Further, tertiary education is seen as a traded service of which student satisfaction is one of the measures of performance. Expectations are also contingent on past experience and past experience may

or may not be similar to the current experience. In accordance with the theory, therefore, expectations are inextricably linked to satisfaction and consequently students or customers will invariably have expectations that are usually associated with past experience or even no experience at all.

In this study, students were satisfied as their expectations were met in the areas of access, recorded materials, and online examinations. However, where students' expectations were not met in the areas of student engagement, connectivity, and communication, they were dissatisfied.

The intention to purchase a product, which is highlighted in the theory, may be likened to the intention to continue registering for courses or to continue with the services at a later point in time. Like the repurchasing of the product, therefore, the student may be dissatisfied but still continues with the service because of limited options or choices. This, again, supports the argument of the similarity between service in commerce and service in tertiary education.

High levels of dissatisfaction were experienced around student engagement. Most of these students felt that some lecturers were not effective with online presentations and so these students yearned for the physical interaction to which they had grown accustomed in face-to-face delivery. The students also felt that they, themselves, were not as focused as they used to be, class discussions were not as engaging, and so they were not inclined to participate in online discussions. These findings accord with both Robinson and Taylor (2007) and Cheminais (2008) who found that students in the classroom will not be engaged if they themselves do not participate and are not focused. Moreover, class engagement requires that the student be proactive (Kay et al. 2010) and for the lecturer to provide class activities for these students (Dunne and Zandstra 2011). With lecturers being challenged to manoeuvre in the remote teaching environment, class activities are kept at a minimum and student engagement is not unsurprisingly low.

High levels of satisfaction were expressed by students in the area of access. These students were generally upbeat with their energy levels in class, with opportunities for multitasking and with the "no-hassle" in attending classes. These findings on students being positive about access vis-à-vis multitasking and no hassle to attend classes are consistent with expectations. However, students' energy levels were not expected to be high as the remote classes often resulted in a bit of fatigue, with students having to sit in front of computer screens for long hours – unless, of course, students are multitasking at their homes and not so engaged in the remote classes. It was also somewhat contradictory that students were satisfied

with the ease of attending classes yet some lecturers are reporting that undergraduate students (90% of sample in this study) are not attending many of their classes despite such ease of access.

The areas of connectivity and communication recorded high levels of dissatisfaction with internet connection, lecturers' participation in online chat, slow feedback and non-response of faculty and staff to students. Many students at the university level are challenged with both quality and affordability of internet services (Senior 2010). This has certainly been the case among students in the FSS. Raheim (2020b) has argued that digital inequality due to COVID-19 has widened the learning gap between students, placing those with internet problems at a disadvantage. The FSS itself has also had internet problems, along with other technical issues with the BlackBoard Collaborate (such as inability to use some videos, multimedia platforms and connecting with other application software) that is used to facilitate the remote classes. In addition, some of the lecturers are doing remote teaching for the first time and have not grown accustomed to online chats and break-out rooms that are necessary for engaging students. With the emergency measures, also, the teaching environment has become chaotic. This was particularly so in the previous semester when the pandemic just started. This chaotic environment could partially be responsible for lecturers' slow feedback and non-response to students.

High levels of satisfaction were reported by students in the areas of recorded materials and online examinations. The large majority of students were pleased that the university had introduced the mandatory asynchronous option during the pandemic when all synchronous lectures had to be recorded for further access to students. These students were also pleased that the online examinations that were usually proctored over two or three hours were now extended for at least two days, non-proctored, with modified methods of assessment, and affording students more time to complete these examinations. These findings on online examinations with two-day access clearly conform to expectations as most of these examinations were done via take-home/open-book and gave students the opportunity to collaborate with their colleagues thus leading to grade inflation in some instances. Similarly, the findings on recorded materials were expected as many students, particularly at the undergraduate level, do not take notes and do not attend classes with regularity and therefore these backed-up lectures are much to their liking. In addition, there were high levels of dissatisfaction identified with students' engagement, connectivity and communication suggesting

that expectations were not met in these fundamental areas of remote teaching and learning.

Conclusions and Recommendations

Tertiary education is a market of services and, consequently, student satisfaction is essential for the sustainability of the entities that deliver these services. A satisfied student is essential in times of ERT. With remote delivery, students may become less loyal to their institution and may, therefore, not be willing to recommend the institution to other students or may opt not to undertake further studies after leaving the institution. At a minimum and concomitant with the Expectation Confirmation Theory, students' satisfaction is usually driven by their expectations of the programme on offer and perceptions on the performance of the educational provider in the delivery of these programmes.

The study found that with the hurried move to go remote by the FSS there are at least four constructs of students' satisfaction that must be taken into account by the faculty and staff: (1) Student engagement, (2) Student access, (3) Connectivity and communication, and (4) Recorded materials and online examinations. High levels of dissatisfaction were expressed by students in the areas of student engagement, and connectivity and communication. Conversely, high levels of satisfaction were found in the areas of student access to remote teaching, recorded materials, and online examinations.

This study has no doubt yielded a useful outcome in the identification of satisfaction factors and items that underlie these factors in ERT in the FSS, yet there are at least two limitations that must be highlighted for completeness. First, the survey-based data collection is prone to under- and over-reporting that may be heightened with ERT when students are expected to be more stressed. Second, the reasons for satisfaction or dissatisfaction with the performance on the ERT were not captured through the survey and, consequently, a more complete assessment on ERT could be better captured through the survey triangulated by qualitative inquiry. Further research should therefore utilise mixed or qualitative methodologies to assess student satisfaction in the ERT environment, paying attention to the reasons for satisfaction/dissatisfaction for a more comprehensive understanding of the issues.

Recommendations

The following provides a list of recommendations on each of the four identified dimensions of ERT.

1. **Student engagement**
   - — Lecturers should give students short breaks during the sessions to mitigate the high levels of fatigue associated with sitting for long periods in front of a computer screen.
   - — Breakout groups are required to facilitate group dynamics, increased student participation and more engaging discussions.
   - — Lecturers' instructional techniques should incorporate videos to aid in presenting the course content to students as a way of better engaging students as the typical PowerPoint utilised by most lecturers could get monotonous when students have to sit for long hours.

2. **Connectivity and communication**
   - — On-going training sessions should be held for lecturers, students and administrators for improved communication on the remote platform.
   - — With the void created through the absence of the face-to-face interaction, lecturers and administrators should improve email response rates in answering students' queries.
   - — The FSS should offer a laptop and internet package (included in the students' tuition cost) in order to *level the playing field* among students for improved teaching and learning in the remote environment,
   - — The FSS should lobby the university to improve the online technology support provided to students, particularly during the teaching hours.

3. **Recorded materials and online examinations**
   - — In the short term, the FSS should continue with the posting of recorded lectures and extended time for students to sit online examinations.
   - — In the longer term, the FSS should acquire the resources for conducting proctored online examinations.

4. **Student access**
   - — The FSS needs to continue to maintain the high levels of student access, as students seemed to be pleased with having class without the hassle of getting there and the opportunity afforded for multitasking.

The researchers are recommending that a lecturer guide should be included to indicate how, by what means, and over what timeframe communication will be given to students' queries. This is important as the student-lecturer relationship affects students' satisfaction and their ability to succeed within this new reality. This guide could also assist in managing students' expectations on communication response times. The matter of connectivity requires greater national intervention to promote equity in remote teaching for rural and socioeconomically disadvantaged students. Intervention among service providers to offer more stable internet connectivity is a far-reaching problem that goes beyond the scope of the Faculty of Social Sciences.

Conclusion

COVID-19 has no doubt disrupted the teaching and learning operations at the FSS and has led to a new paradigm in ERT. Fundamental to the lessons learnt is that readiness to deliver remote courses must be ascertained at the levels of the department, lecturer, and student if the ERT operations are to be effective (Policy on Quality Assurance of Online and Blended Courses and Programmes, The UWI, 2020). Moreover, all attempts at improving effectiveness in the ERT environment in the FSS must focus on student engagement, student access, connectivity, communication, recorded materials, and online examinations as these are fundamental to performance in this challenging environment. After all, remote teaching and learning may be more prominent in the future of the FSS as, from all indications, traditional methods of delivering tertiary education are not likely to return to their former glory.

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Evaluation of Emergency Remote Teaching and Learning in the MBBS Programme, Faculty of Medical Sciences, Mona

Students' Perspectives

RUSSELL PIERRE, HELEN TROTMAN, AND ANDREA GARBUTT

Abstract

The COVID-19 pandemic has had a profound impact on medical education worldwide. At the Faculty of Medical Sciences (FMS), of The University of the West Indies, Mona, teaching was suspended on 13 March 2020. During the period 13 March to 13 April 2020, faculty were mandated to emergently modify courses and adopt remote learning approaches for completion of students' learning outcomes. Faculty managers conducted a rapid assessment of student access for remote learning prior to the Semester 2 restart date (14 April 2020). Measures were instituted to address identified and anticipated challenges (connectivity and access; course-related and lecturer-associated issues).

We sought to determine student satisfaction and evaluate the administration of emergency remote learning during completion of Semester 2, 2019/2020 for quality assurance purposes. An online survey was developed using Microsoft Forms© with the following key items: Demographics (setting, MBBS programme year); Access (devices, internet access modality, challenges); Perception and rating of instruction, teaching, lecturers, and remote learning. Univariate analyses were used to summarise responses and open-ended responses categorised using thematic analyses.

Results showed that students were overall satisfied with content, communication, lecturer preparation, instructional material, and online learning activities during emergency remote administration. Students appreciated the utility of Blackboard Collaborate Ultra® combined with Zoom.

Conclusion

The COVID-19 pandemic has created opportunity for innovation in administration of remote teaching and learning in the MBBS Programme. The agility of the FMS to adapt to this new situation is commendable. Further optimisation will require identification of at risk and disadvantaged students, increasing capacity among faculty for remote teaching and learning competencies and collaboration with key stakeholders.

Keywords: education, medical, online learning, COVID-19

Introduction

ON 31 DECEMBER 2019 THE MUNICIPAL HEALTH COMMISSION in Wuhan China reported on "viral pneumonias" being seen in the community, and by 5 January 2020 the first Disease Outbreak news was reported (WHO 2020). These clusters of "viral pneumonias" or "pneumonias of unknown origin" quickly progressed to a global pandemic caused by the novel SARS-CoV-2 2019 (COVID-19). With the advent of the first confirmed case in the Caribbean region on 1 March 2020, the COVID-19 pandemic advanced and affected member states in a heterogeneous manner, and was associated with varying country-specific mandated precautions and restrictions (Christie, Thompson, and Webster-Kerr 2020).

Globally, the impact of the Coronavirus pandemic has been felt not only by financial and health systems but also by educational systems. The educational systems find themselves in the unique situation of continuing education whilst limiting the spread of the Coronavirus. The response has been to deliver education remotely using different technologies (UNESCO 2020). At the time of the outbreak in Wuhan, schools were on holiday for the Chinese New Year. Schools reopened 9 February 2020 remotely with what has been described as the "largest simultaneous online learning exercise in human history" (The World Bank n.d.), with approximately 200 million children starting school remotely. Medical

schools globally have had to temporarily suspend all clinical-related teaching in response to the pandemic (Wong 2020, 170–71).

At the Faculty of Medical Sciences (FMS) of The University of the West Indies (UWI), Mona, all teaching was suspended on 13 March 2020, during Semester 2, 2019/2020 in compliance with the Government of Jamaica mandate (12 March 2020). This was done to reduce gatherings, travelling, and congregation with an overall aim to reduce transmission (The University of the West Indies 2020). Courses and clerkships in the undergraduate medical programme (Bachelor of Medicine, Bachelor of Surgery – MBBS) were interrupted disproportionately. Students (local, regional, and international) returned to their homes, uncertain about continuation in their respective courses and clerkships and concerned about progression to graduation or to the next level in the programme.

During the period 13 March to 13 April 2020, faculty were mandated to emergently review courses and adopt revised remote learning and assessment approaches to complete students' learning outcomes for the remainder of Semester 2, 2019/2020 (The University of the West Indies 2020).

The faculty managers were concerned about the preparedness for emergency remote learning among the cohorts of students. Effective access to online content would require reliable and consistent internet connection, bandwidth strength to allow downloading/uploading of various media, appropriate devices, and software applications to utilise the material, among other factors. The success of any distance learning would also be dependent on readiness at different levels. These include technological, content and pedagogical readiness as well as the ability to monitor and evaluate (UNESCO 2020).

The MBBS Programme of the FMS, Mona is a five-year undergraduate medical programme that comprises Stage 1 (Years 1–3) and 2 (Years 4–5). Stage 1 is system-based, with sequential integration of basic and clinical medical sciences, and early patient contact. Assessment and testing modes are written (Multiple Choice Questions – MCQs, Short Answer Questions – SAQs, structured essays), laboratory-based, and clinical. Students are awarded the BMedSci Degree at the end of Stage 1, once they have fulfilled the UWI criteria. Stage 2 instructs students in core, elective, and specialist clinical clerkships. Assessment modes are written (MCQs, SAQs), clinical, and continuous evaluation. The final MBBS examination serves as an "exit" assessment for students who have successfully completed the programme of study. Currently the final MBBS examination is discipline-based (Medicine & Therapeutics, Obstetrics & Gynaecology, Surgery) and comprises

written, clinical, and oral components. Students are eligible to sit this examination once they have successfully completed all courses and clerkships in the MBBS programme. The written components consist of MCQs, SAQs, and structured short answers, while the clinical/oral components are primarily of the Objective Structured Clinical Examination type. Teams of internal and external examiners are involved in the process.

Most of the teaching and learning instruction in the MBBS programme is face-to-face, and practice-based clinical instruction in Stage 2 is highly reliant on tutor-student interaction and feedback during exposure to patients and other relevant clinical material, hence the anticipated major challenge for administering clinical instruction in the context of pandemic-mandated restrictions and protocols. A rapid assessment of student access and preparedness for remote learning was therefore conducted prior to the Semester 2 restart date (14 April 2020) (Pierre, Garbutt, and Trotman-Edwards 2020). Utilising an online survey modality [Jotform© (https://www.jotform.com/)], student data and views of the following key items were collated one week prior to the re-commencement of teaching: Demographics (gender, preferred email address, current country of residence, setting); Access (setting – urban versus rural, available devices, internet access options); Remote/online learning (prior experience, modality of remote learning opportunities); Perception of utility (ability to learn via remote/online format, anticipated challenges).

Most respondents had access to a laptop and/or multiple devices and 88% used personal/family WiFi for internet access. However, 12% were challenged since they relied on prepaid internet plans, neighbours' WiFi, or free public WiFi, and a third of respondents resided in rural settings with implications for limited access to content. Only 57% had previous experience with remote/online learning platforms and 44% felt "comfortable" about remote/online learning. Major anticipated challenges were connectivity and access, as well as course-related and student-related factors. Identified and anticipated challenges included connectivity and access, along with course-related and lecturer-associated issues. Interventions were instituted to address these.

Disadvantaged students were loaned devices via the Mona Library Services and all students benefitted from negotiated zero-rated access to the online learning platforms. Pedagogical modifications were made to all courses and clerkships for conversion to online administration and ratified by the UWI Board for Undergraduate Studies. An aggressive approach to faculty training in the use of online

resources for teaching and assessments was expedited with the collaboration of Mona Information Technology Services (MITS), Centre for Excellence in Teaching and Learning (CETL), and the Health Professions Education Unit, FMS. Synchronous and asynchronous approaches were utilised in training delivery and included checklists for student, staff, and faculty readiness for online teaching.

We therefore sought to determine student satisfaction and evaluate the administration of emergency remote learning during completion of Semester 2, 2019/2020 for quality assurance purposes.

Methods

During May and June 2020 we conducted a cross-sectional study using an anonymous online survey. The survey was sequentially disseminated to student cohorts of the MBBS programme (Years 1–5) as each completed Semester 2, 2019/2020. Dissemination was facilitated via the Undergraduate Affairs Section, Dean's Office, FMS and also through student leaders for each cohort year. Students were assured of the anonymous nature of the survey and its use primarily for quality assurance purposes. An online survey instrument was developed and administered using Microsoft Forms© (https://forms.office.com/Pages/DesignPage.aspx) with the following key domains and items:

- **Demographics** – current country of residence, setting (urban, rural), MBBS cohort year;
- **Access** – devices (laptop, desktop, tablet, smartphone), internet access modality (personal/family WiFi, UWI WiFi, mobile data, public WiFi), challenges (WiFi and connectivity, device access, lecturer issues and quality of teaching, personal issues, communication);
- **Perception and rating of instruction, teaching, lecturers, remote/online learning – asking the following:**
    - How satisfied are you with the knowledge you gained throughout the completion of the course/clerkship?
    - Do you feel you achieved your desired learning outcome?
    - How would you rate the lecturers'/instructors' overall teaching performance? (Likert rating scale 1 to 10)?
    - How well did the lecturers/instructors communicate course/clerkship expectations?

- How well did your lecturers/instructor communicate course/clerkship assignments and examinations?
- How prepared were your lecturers/instructors for the online learning approach for your course/clerkship?
- How effective were the instructional materials used in the online teaching of your course/clerkship?
- How effective were the online learning activities used in this course/clerkship?
- Please list your preferred and most effective online learning activity
- Did the completion of the course/clerkship meet your expectation?
- How likely are you to recommend this remote learning approach for the course/clerkship to a friend or classmate?
- Provide one major aspect that can improve the remote learning experience.

Responses were collated electronically via Microsoft Forms and univariate analyses conducted to summarise data using IBM® SPSS® Statistics version 22. Open-ended responses were coded by two researchers independently, achieving thematic saturation.

Results

Of 576 responses 22.7% were Year 1, 19.6% Year 2, 21.9% Year 3, 19.6% Year 4, 16.1% Year 5 MBBS students, and average response "rate" was 44% (range 31 to 53%) (*see* table 1).

Table 1. Response rate by MBBS cohort year

Cohort Year MBBS	Number of students	Number of respondents	Response rate (%)
Year 1	248	131	52.8
Year 2	257	113	44.0
Year 3	126	126	48.5
Year 4	260	113	43.5
Year 5	300	93	31.0

Demographics

The majority of students (96.4%) accessed online learning from Jamaica, Trinidad, The Bahamas, and Barbados; urban settings (72%); and there was no difference in setting by MBBS cohort year ($p = 0.054$). Main devices used were laptops (81.9%) and tablets (9.9%), while personal/family WiFi (89.6%) and UWI WiFi (7.0%) were the commonest means for internet access.

Challenges

Challenges experienced were mainly WiFi access and connectivity issues (43.1%), lecturer/tutor issues (quality of teaching) (30.2%) and communication with teachers/coordinator (13.4%). Few students cited personal (9.5%) and device access (2.1%) challenges.

Student views and perceptions of emergency remote teaching and learning

Students were overall satisfied (32.2% extremely/very; 46.3% somewhat satisfied) with content, communication, lecturer preparation, instructional material and online learning activities during emergency remote administration (table 2). Students in Year 5 consistently expressed satisfaction with all domains of emergency remote administration compared to Year 1 and 2 student cohorts ($p < 0.001$), and ratings correlated positively with MBBS cohort year ($p < 0.01$).

Student rating of lecturers was positive (modal rating 7; 70.1% respondents rated 6 to 10 on a 10-point Likert scale).

There was significant difference in lecturer rating by MBBS cohort year, oneway ANOVA [$F(4, 571) = 44.00$, $p<0.001$], and lecturer rating correlated positively with MBBS cohort year ($p < 0.01$). Recommendation of remote teaching approach correlated positively with MBBS cohort year ($p < 0.01$) and was more likely among students in Year 5, oneway ANOVA [$F(4, 571) = 18.92$, $p < 0.001$] (table 3).

Among respondents, 24.1% and 26.7% felt they achieved their desired learning outcomes and that the course/clerkship met their expectation, respectively. These perceptions correlated positively with MBBS cohort year ($p < 0.01$).

Active learning strategies were overwhelmingly cited as the preferred and most effective online activities (table 4). These included (in decreasing frequency) online formative assessments and polling during learning activities (clickers,

Table 2. Student perception and rating of emergency remote teaching and learning

Questions	Rating (%)					P value*
	Extremely	Very	Somewhat	Not so	Not at all	
	5	4	3	2	1	
How satisfied are you with the knowledge you gained throughout the completion of the course/ clerkship?	4.5	36.8	34.7	19.8	4.2	0.000
How well did the lecturers/instructors communicate course/ clerkship expectations?	4.3	25.5	50.3	15.6	4.2	0.000
How well did your lecturers/instructors communicate course/ clerkship assignments and examinations?	4.3	28.0	37.2	19.6	10.9	0.000
How prepared were your lecturers/instructors for the online learning approach for your course/ clerkship?	3.5	29.0	48.3	16.3	3.0	0.000
How effective were the instructional materi- als used in the online teaching of your course/ clerkship?	1.6	28.5	55.7	13.2	1.0	0.000
How effective were the online learning activities used in this course/ clerkship?	1.7	26.0	51.7	17.9	2.6	0.000

*oneway ANOVA; difference between MBBS cohort year

Kahoots®, Socrative®), interactive lectures, case-based tutorials and discussions, media-driven discussions and other discussion forums. Students appreciated the utility of the Blackboard Collaborate Ultra® combined with Zoom (recorded sessions accessible for asynchronous learning; virtual face-to-face features; ease of interactions with lecturer). They expressed concerns about the gaps in

Table 3. Rating of lecturers and recommendation of remote teaching by cohort year

Cohort Year MBBS	Lecturer Rating Mean [95% CI)	Recommendation Rating Mean [95% CI]
Year 1	5.37 [5.01, 5.60]	3.84 [3.46, 4.22]
Year 2	5.61 [5.31, 5.91]	4.81 [4.33, 5.30]
Year 3	7.02 [6.79, 7.26]	4.94 [4.56, 5.33]
Year 4	7.05 [6.81, 7.30]	5.01 [4.61, 5.41]
Year 5	7.42 [7.10, 7.74]	6.46 [6.07, 6.86]

competency among lecturers and tutors regarding active learning strategies, use of the learning management platforms, and video-conferencing tools, communication, and feedback.

Table 4. Students preferred online learning modality

Preferred Online Activity and Modality	Frequency (%)
Formative assessments (online quizzes; polling, Clicker, Kahoots, Socrative, Quizziz)	130 (22.6)
Lectures (interactive)	105 (18.2)
Tutorials	93 (16.1)
Case-based activities	70 (12.2)
Learning management system and videoconferencing modalities	59 (10.2)
Videos	28 (4.9)
Discussion forums	27 (4.7)
None	64 (11.1)
Total	**576 (100.0)**

Discussion

The majority of students accessed remote/online learning using laptops and personal/family WiFi from urban settings. Although the challenges experienced were mainly WiFi access, connectivity, and lecturer/tutor-related issues, students were enthusiastically engaged with the active learning strategies. Students' perception was positive and a third were satisfied with content, communication, lecturer

preparation, instructional material and online learning activities during emergency remote administration. However, just about 25% felt they had achieved their desired learning outcomes and that the courses/clerkships met their expectations.

Satisfaction for all domains of remote teaching and learning was statistically greater among students in Year 5. It is probable that students in the final year of the programme had previous experience with online instruction, were more familiar with lecturers/tutors and more inclined to adopt self-directed learning approaches compared to students at the earlier stages.

Perceptions of dissatisfaction among the cohorts, particularly in earlier programme years may have been influenced by adjustment challenges associated with the sudden disruption in the traditional approach to pedagogy in the undergraduate medical programme. These may have been compounded by tutors now having to adapt to unfamiliar e-learning and virtual teaching modalities for instruction.

Challenges to medical education are considerable during this period of social distancing and other precautions. Medical education in the traditional sense is practice-based in pedagogy, and students reinforce and augment theoretical knowledge with practical application in the "wet" laboratories (anatomy, physiology, pathology), simulated settings and clinical spaces (outpatient departments, wards, operating theatres, for example). The impact is profound since students have been removed from these settings to limit risk of exposure to COVID-19 (Kachra and Brown 2020; Gill, Whitehead, and Wondimagegn 2020, 77–79). They will miss weeks to months of experiential learning that would normally be considered critical to their training and acquisition of clinical competencies.

In-person communication is critical to the teaching and learning process, and this was cited as a significant challenge in the transition to online learning among medical students in a Saudi Arabia medical school (Rajab, Gazal, and Alkattan 2020). This was similar in our student cohorts, and included other challenges related to online assessment, access to computer hardware and software, technical barriers, not having much experience with online learning, and pandemic-related anxiety.

The overall positive students' perception of online learning is encouraging, and suggests their willingness to embrace online learning and enhanced active learning strategies. Students' engagement is paramount as recognised in other settings and the transformation to remote teaching and learning has optimised these strategies and processes (Demuyakor 2020; Rajab, Gazal, and Alkattan 2020).

The agility of the FMS to adapt to this new paradigm through an aggressive approach to training and innovation is commendable, and faculty have had to utilise already existing resources to emergently deliver the interrupted semester's curriculum. Similar to medical schools globally, faculty have embarked on the transformation of curricula to meet the current workforce needs even with the challenges of the epidemic (Lucey 2013; Skochelak and Stack 2017; Lucey and Johnston 2020). Students' concern regarding the capacity gap among faculty for remote teaching pedagogy and technical expertise must be swiftly addressed.

Limitations

The average response rate was 44% (range 31% to 53%), hence the perceptions and opinions of at least 50% of the MBBS cohorts are unknown. Possible reasons for non-responders to the online survey could be COVID-19 survey fatigue, lack of access and connectivity, or negative psychological impact of the pandemic, among others. The authors opine, however, that the recorded perceptions are a general reflection of the cohorts and must be considered in forward planning strategies by the FMS.

Another limitation of this study is that students' perception of self-efficacy with online learning was not explored. Neither did the study look at whether the ratings for satisfaction with course delivery or achievement of learning objectives differed between students who had had previous experience with online learning and those who had not. Previous studies have shown differences in student satisfaction with quality of online courses based on whether or not they had prior experience with online learning (Hixon, Ralston-Berg, Buckenmeyer, and Barczyk 2016).

These student perceptions are probably also applicable to students in the other health professions in the FMS, Mona (Dentistry, Nursing, Diagnostic Radiation, Pharmacy, Physical Therapy), given the similar practice-based pedagogy and challenges associated with interruption of teaching and training due to the pandemic. Evaluation of students' perception of self-efficacy with online learning should, however, be determined to identify competency gaps and to address them accordingly.

As we move to the next phase of curricular transformation, it is incumbent on faculty to continue the education of these doctors in training in the healthcare settings that are continuously responding and adapting to public health virus

management initiatives. Curricula redesign will need to consider a public health systems approach to teaching and learning in this new dispensation.

Conclusion

The COVID-19 pandemic has created an opportunity for innovation and curricula transformation in administration of remote teaching and learning in the MBBS Programme. Students' perceptions were positive, and they were enthusiastically engaged in active learning strategies. Further optimisation will require identification of at-risk and disadvantaged students, increasing capacity among faculty for remote teaching and learning competencies, and collaboration with key stakeholders.

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Transitioning to Online Teaching, Learning, and Assessment in the COVID-19 Era

Understanding Student and Faculty Perspectives

WENDELL C. WALLACE, AKINEE HARRY, ROSHANNA RAMDASS, AND SHARLENE SALINA

Abstract

A great majority of teaching, learning, and assessment (TLA) in higher education in the Caribbean is premised on the traditional delivery of face-to-face TLA. In March 2020, the World Health Organization declared the Coronavirus (SARS-CoV-2) a pandemic and many Caribbean educators transitioned quickly to online TLA. In light of this transition, the current study examines the challenges, benefits, opportunities, and lessons learnt as a result of the sudden transition from face-to-face to online modes of TLA at The University of the West Indies, St. Augustine campus. A qualitative phenomenological approach was adopted and data collected from a cohort of postgraduate criminology and criminal justice students (n=20) and their lecturers (n=5) who transitioned from face-to-face to online TLA during Semester 2 of academic year 2019/2020. Thematic analyses of the data emanating from semi-structured interviews with students and lecturers indicated a multiplicity of challenges, benefits, new opportunities, and lessons learnt.

Keywords: information technology, digital education, TLA, COVID-19, higher education, The University of the West Indies

Introduction

Since the beginning of higher education, almost all Caribbean universities have utilised face-to-face teaching, learning, and assessment (TLA). For some researchers, face-to-face TLA is a traditional method of instruction (Jansen 2004) that is irreplaceable and the cornerstone of every learning institution (Liu and Long 2014; Nikoubakht, Yeilagh, and Kiamanesh 2019). However, the Coronavirus pandemic (COVID-19) of 2020 upended the traditional face-to-face TLA and prompted educators at many Caribbean universities to adjust their teaching practices away from the traditional modality of face-to-face TLA.

A major component of this adjustment saw changes being made to pre-COVID-19 modes of pedagogical instruction which included an almost instantaneous departure from the well-entrenched face-to-face modality of TLA to online TLA. While online learning is not new to higher education (Loch and Borland 2014; Phillip and Cain 2015), the sudden transition from face-to-face to online TLA appeared to be difficult for many students and lecturers. This difficulty was due to the deeply entrenched nature of face-to-face TLA within the culture of tertiary level institutions in the Caribbean. Therefore, any mention of online TLA was generally frowned upon by both students and educators who have grown accustomed to face-to-face modes of educational instruction in the region.

Firmin (2008) emphasises that any form of transition involves challenges, whether it is the transition from employment to retirement, transition from one country to another, transition from secondary school to university or the transition from one mode of teaching and learning to another. Indeed, the transition from face-to-face TLA can be challenging for both faculty and students (Chiasson, Terras, and Smart 2015; Esani 2010; Martínez, Aguilar, and Ortiz 2020; McCaul et al. 2020; Phillip and Cain 2015; York, Yang, and Dark 2007). On the other hand, the transition can also be rewarding (Esani 2010) as well as intimidating for academicians (McCaul et al. 2020).

In some quarters, the term "emergency remote teaching (ERT)" is used to define the sudden shift away from face-to-face TLA (*see* Hodges et al. 2020) that was precipitated by the COVID-19 global pandemic. According to Hodges et al. (2020), ERT is a temporary shift of instructional delivery to an alternative delivery mode due to crisis circumstances. ERT involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the

crisis or emergency has abated. In this study, the authors utilised the term "online TLA" and not ERT as there was no indication that the TLA that was conducted online due to COVID-19 was temporary or that it would return to the previously utilised face-to-face mode of delivery at the tertiary institution under inquiry.

Online TLA

There is no singular definition for online TLA. For instance, Yam and Rossinni (2011) point out that online learning is commonly known as "web-based instruction", "e-learning" or "distance learning", while Dhawan (2020) opines that online learning refers to learning experiences in synchronous or asynchronous environments using different devices (mobile phones, laptops, etc.) with internet access. In a similar vein, Cojocariu et al. (2014) assert that online TLA means online learning, open learning, web-based learning, computer-mediated learning, blended learning, and m-learning and they all have in common the ability to use a computer connected to a network with the possibility to learn from anywhere, anytime, in any rhythm, and with any means. Instructively, Anderson (2016) and Mpungose (2020) submit that e-learning education that takes place over the internet, alternatively called online learning, is an umbrella term for any learning that takes place across distance that incorporates websites into programmes by universities by providing study materials, having podcasts for students to access at their own convenience, the use of emails and discussion boards for in-depth communication, and the submission and return of assignments and feedback. Figure 1 provides a continuum of online learning, while figure 2 provides a pictorial of online TLA as utilised at The UWI, St. Augustine.

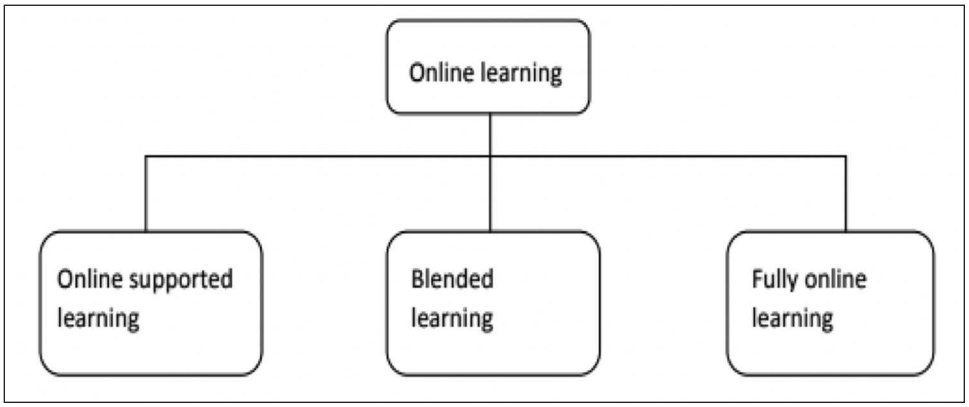

Figure 1. A continuum of online learning.
Source: Adapted from Garrison and Kanuka (2004, 97).

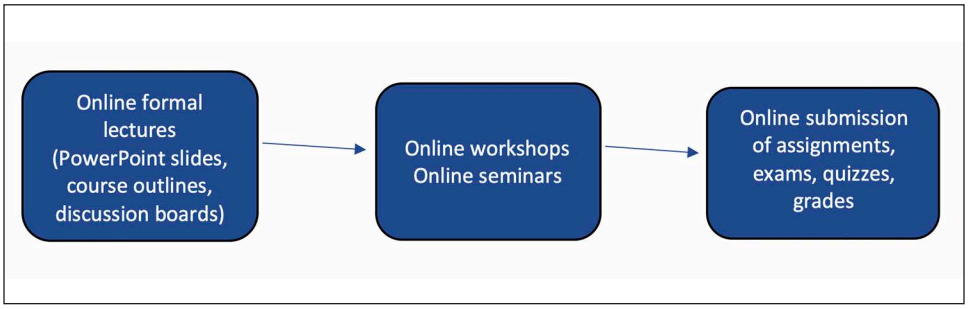

Figure 2. Course delivery of online TLA at The University of the West Indies, St. Augustine.
Source: Fieldwork, 2020.

As a result of the sudden or enhanced digitisation of higher education (online courses, online exams, animation, facilitation of online library usage and digital textbooks) at The UWI, St. Augustine campus due to the COVID-19 virus, conversations about higher education post-COVID-19 are plentiful as scholars are increasingly monitoring, researching, and evaluating changes to the established university TLA pedagogy. The authors of this article propose that such scholarship is needed in order to understand how assumptions about traditional face-to-face TLA in the Caribbean are being challenged by the COVID-19 pandemic. It is also important to gain a fuller understanding of the impacts of the transition from face-to-face to online TLA on the well-being of students and lecturers, as well as on the academic development of students.

In sum, the present study aims to understand the lived and self-reported experiences of students and lecturers in a postgraduate criminology and criminal justice programme at a tertiary institution in Trinidad and Tobago after the transition from face-to-face TLA to online TLA. While there is much research on this transition in other jurisdictions (Chiasson, Terras, and Smart 2015; Gloria and Uttal 2020; Lockyer et al. 2006; Mpungose 2020; York, Yang, and Dark 2007), little is known about this phenomenon in the Caribbean (*see* Oyedotun 2020; Phillip and Cain 2015 as exceptions). As a result of this gap, a qualitative research design was adopted to explore the phenomenon in Trinidad and Tobago. Willis (2007) posits that the qualitative methodology is useful for exploring concepts when there is little available published literature on the issue under inquiry, while Kvale (2007) argues that this method allows for the gathering of thick-descriptions of the phenomenon under inquiry.

The study was guided by the following research questions (RQs):

RQ1. What were the major challenges that students and lecturers faced as a result of the transition from face-to-face to online TLA?

RQ2. What were the major benefits that accrued to students and lecturers as a result of the transition from face-to-face to online TLA?

RQ3. What new opportunities were presented to students and their lecturers as a result of the transition from face-to-face to online TLA?

RQ4. What were the lessons learnt by students and lecturers as a result of the transition from face-to-face to online TLA?

Background

On 11 March 2020, the WHO (2020) declared COVID-19 a pandemic and people were advised to avoid close contact with persons displaying symptoms of the virus. Therefore, universities across the globe were forced to restrict staff and student access to their physical infrastructures. In the context of Trinidad and Tobago, the Prime Minister, Dr Keith C. Rowley, began implementing precautionary procedures that included social distancing and a ban on large public gatherings. The Prime Minister also called on all teaching institutions to suspend their usual face-to-face activities and find alternative ways to offer teaching and learning. The result of the government's directive was that face-to-face lectures became an instant impossibility and online TLA became an immediate initiative for the delivery of TLA. By mid-March 2020, almost all institutions of learning (kindergarten, primary, secondary, technical, and university) in Trinidad and Tobago were faced with the monumental task of converting the traditional and well-embedded method of TLA in brick-and-mortar establishments to TLA via online platforms. This monumental task impacted institutions of higher education, including lecturers and their students at The UWI, St. Augustine campus, as they were faced with the task of suddenly transitioning from face-to-face to online modes of TLA without any advance warning and little to no preparation.

Lecturers and students were also faced with the instantaneous task of learning how to use new technologies such as Microsoft Teams, BlackBoard Collaborate and Zoom in furtherance of their TLA. Further, online academic advising, online office hours, online attendance at official university meetings and online responses to student queries quickly became the "new normal". While admin-

istrative and academic staff and students came together to ensure that students' education continued, the effort was not without significant challenges. Indeed, many students and lecturers were faced with challenges including, but not limited to, technologically diverse students, unfamiliarity with online platforms, poor internet bandwidth, lack of training, lack of infrastructure to work online, limited internet access, shared laptops at home and in some instances, a total lack of internet connectivity. Importantly, the transition from face-to-face to online TLA also provided opportunities for all stakeholders in education at The UWI, St. Augustine. Instructively, online TLA was already being used in the education system in Trinidad and Tobago (*see* Phillip and Cain 2015 for support), however, it was sporadic as almost all TLA at universities and colleges in the country had been utilising the deeply entrenched system of face-to-face instruction.

The Study

The study was conducted as a result of the discomfiture that was observed by the primary researcher among students and lecturers in the general population at The UWI, St. Augustine as a result of the sudden transition from face-to-face TLA. Further, as The UWI, St. Augustine began embracing online TLA as a method of ensuring continuity of its TLA, it was important to gain an understanding of the perspectives of students and their lecturers as they transitioned to online pedagogies (*see* Redmond 2011 for support). Additionally, research into student and lecturer attitudes towards online TLA is important in order to determine whether the digitisation of education was beneficial to both groups (Wong and Fong 2014).

The current research effort is educationally significant as well as aligned to the theme of this issue of the *Quality Education Forum* ("Navigating Higher Education in a Pandemic: Teaching and Assessment in the Time of COVID-19 and Beyond") as the authors of this article sought to gain an understanding of the processes employed by students and lecturers as they transitioned from face-to-face to online TLA during the COVID-19 pandemic. This study is also significant and relevant to the Caribbean region as there are long-term ramifications of the COVID-19 pandemic for contemporary pedagogy in higher education and these ramifications will only be highlighted by empirical research, such as the current one.

This research is also significant as it highlights the functionality of The UWI

during a period of epidemic and seeks to highlight what should be prioritised or conversely, allowed to lapse within the institution as this may hold the key to the sustainability of the institution in the future. The significance of this article should not be underestimated as the study adds to the limited body of scholarly literature on the issue in the Caribbean. Further, the findings, though limited in generalisability, offer insights into TLA in the COVID-19 era, highlights efforts at transitioning to online TLA by a sample of students and lecturers, and can be utilised to proactively plan for similar pandemic events in the future.

In conceptualising the study, the researchers selected postgraduate rather than undergraduate students, as there is a general perception among graduate students that "online education does not provide a desired deeper level of learning or sufficient instructional forethought and planning" (Martínez, Aguilar, and Ortiz 2020, 2). This study is descriptive and does not seek relationships between variables as its contribution to knowledge was constructed within the methodological aperçu of Park and Burgess (1921) that focuses on illuminating phenomena, rather than pursuing generalisability and hypothesis testing.

Review of Literature

Globally, there is an acceptance of online education as a major and viable component of higher education (Allen and Seaman 2016), however, the transition to online TLA from a traditional face-to-face approach challenges the expectations and roles of both instructors and learners (Redmond 2011). Quite notably, online TLA is not without challenges (Dhawan 2020; Esani 2010; Kebritchi, Lipschuetz, and Santiague 2017; Martinez, Aguilar, and Ortiz 2020; Yang and Cornelious 2005) as well as rewards for lecturers and students (Esani 2010).

According to Esani (2010, 187), "Transitioning from on-campus to online teaching brings about some challenges and surprises." These challenges are premised on notions that "Online students may require constant feedback and clarifications on difficult concepts which can be very time consuming for the faculty" (Esani 2010, 187) and that students usually prefer to take difficult or important courses face-to-face, instead of online (Jaggars 2014). Challenges associated with transitioning from face-to-face TLA to online TLA are encapsulated in a study by Phillip and Cain (2015) in Trinidad and Tobago. The findings from that study reveal that some educators experienced challenges in negotiating the online environment, as well as a lack of student engagement. The study also found that

the transition to online TLA was challenging as it contested the identities of the educators, their classroom practices, and their power relations in the virtual classrooms. The transition to online TLA also has other difficulties. For example, the teaching methodology has to be adapted and new resources put in place (Martinez et al. 2020).

It is also challenging to create a sense of social presence to ensure that students feel they are a key component in the learning environment (Esani 2010). Managing student participation and interaction is also a difficult task for educators engaged in online TLA (Phillip and Cain 2015). Challenges associated with the transition from face-to-face to online TLA as well as with online TLA, are not restricted to any one group, but impact students, lecturers, and the academic institution. For example, Dhawan (2020) points out that online learning presents many challenges including students' issues, educators' issues, and content issues, as well as engaging students and making them participate in the teaching and learning process. In a similar vein, Priluck (2004) posits that first-time, full-time students find it difficult to manage and successfully complete online courses.

Recent scholarship on the introduction of online TLA has also indicated that there are challenges associated with the online experiences of students. This includes students' preference for face-to-face forms of educational experience as they value the social interaction and the communication skills acquired from the classroom environment (Marriott, Marriott, and Selwyn 2004), decreased social contact and the potential isolation of learning on their own (Wong and Fong 2014), student's preference for traditional styles of teaching (Osgerby 2013) and technological difficulties experienced (Smith and Greene 2013).

As it relates to benefits associated with online TLA, an Australian study on the transition from face-to-face to online teaching found that online teaching enabled educators and students to participate in teaching and learning at a time and place that was convenient to them (Redmond 2011). Similarly, other studies by Arbaugh et al. (2009) and de los Santos (2018) submit that online teaching offers some benefits to faculty and students. In a similar vein, Djenic, Krneta, and Mitic (2011) argue that online learning is beneficial for students who cannot regularly attend classes.

Apart from the challenges and benefits of moving from face-to-face to online TLA, opportunities abound for both students and their lecturers as the environment facilitates the provision of meaningful and engaging learning experiences for students (Dhawan 2020). Instructively, Dhawan (2020) points out that online

learning generally has a lot of available opportunities. For example, it allows a boom in learning for academic institutions that have switched to online models of TLA. However, Chickering and Gamson (1987) submit that such opportunities for learning should be guided by sound principles. Importantly, it is argued that the principles can be applied to both online and face-to-face TLA, however, they are more critical in online environments. According to Chickering and Gamson (1987) these principles are student-faculty contact, student-student collaboration, active learning, prompt feedback, focus on time on task, communication of high expectations, and respect for diverse abilities.

Methods and Materials

A qualitative approach using phenomenology was used in this study to gain an understanding of how students and their lecturers transitioned from face-to-face to online TLA. Phenomenology focuses on the lived experiences of participants and aims to amalgamate individual experiences into commonalities (Creswell 2013). In light of Creswell's postulation, the narratives of this study's participants were examined in order to discover common experiences.

In order to obtain an in-depth understanding of the transition, participants for the study were recruited using a purposive sampling strategy. Purposive sampling facilitates the selection of appropriate participants which allow researchers to discover, understand, and gain insights into the phenomenon under study (Devers and Frankel 2000; Merriam 2009) by selecting participants from sites due to the specific characteristics of the selected individuals or groups' experience(s) of the phenomena under study (Devers and Frankel 2000). In this study, the selected individuals were students and their lecturers in a postgraduate programme at The UWI, St. Augustine campus who transitioned from face-to-face TLA to online TLA in the aftermath of the COVID-19 pandemic.

To achieve the study's objectives, data were collected from a cohort of post-graduate criminology and criminal justice students (n=20) and their lecturers (n=5) who transitioned from face-to-face to online TLA during academic year 2019/2020 at The UWI, St. Augustine. The researchers contacted thirty individuals via email and telephone calls to schedule interviews for the present study; however, twenty-five persons participated in the study. After twenty students were interviewed, saturation was achieved (Bowen 2008). This meant that adding new students would no longer result in new codes being applied to the data and

there was a real possibility that no new themes would emerge from the study. Therefore, the researchers concluded that the sample size for the students was adequate for purpose and design. This position is compatible with that of Guest, Bunce, and Johnson (2006) and Neuman (2006) in reporting on research saturation in qualitative studies.

Data Collection

Data were collected by the four researchers through recorded semi-structured interviews with the participants. The interviews sought to determine challenges, benefits, opportunities, and lessons learnt as a result of the transition to online TLA. As the research was conducted during the period of the COVID-19 pandemic, the subsequent lockdown and social distancing practices, several of the study's participants felt uncomfortable to conduct the semi-structured interview on a face-to-face basis. As a result, a great majority of the interviews were conducted over the telephone and via email.

A semi-structured interview sheet containing twenty open-ended questions guided the data collection process. The semi-structured interview schedule was created by the researchers using research questions and current literature in the field (for example, Dhawan 2020; Esani 2010; Gloria and Uttal 2020; Loch and Borland 2014; Martínez, Aguilar, and Ortiz 2020). The semi-structured interview sheet was pilot tested at a tertiary institution in Trinidad and Tobago with eight postgraduate students and two lecturers who had experienced a similar transition from face-to-face to online TLA. Minor typographical errors, repeat and difficult to understand questions were detected and altered. Two experts in qualitative methodology reviewed the semi-structured interview sheet to ensure that it was free from personal bias and was thus valid. Importantly, both independent experts found the instrument to be clear and free from bias.

The questions to the students and their lecturers were generally the same with the exception of demographic questions and a few questions that were specific to lecturers and students. Questions on the interview schedule included, but were not limited to:

1. At the university where you completed your undergraduate degree, what percentage of lectures (teaching) were conducted face-to-face?
2. What are some of the challenges you experienced as a student transitioning from face-to-face classroom TLA to online TLA?

3. What are some of the benefits you experienced as a student transitioning from face-to-face classroom TLA to online TLA?
4. What are some of the challenges you experienced as a lecturer transitioning from face-to-face classroom TLA to online TLA?

As the interviews were semi-structured, this allowed the researchers great flexibility in allowing the participants to narrate their experiences while allowing the researchers to probe deeper for answers to partially answered questions.

Before the data collection began, the nature and purpose of the research were explained to participants and informed consent sought before conducting the interviews. The participants were informed of confidentiality, anonymity, and protection of their rights as participants in the study. They were also informed that there were no right or wrong answers and they would not be judged by their responses. Participants were also informed that if at any time during the interview they felt overwhelmed, they should notify the interviewers and take a break or end the interview without any penalty. The interviews were recorded by the primary and secondary researchers and transcribed by the primary researcher with assistance from the secondary researchers when areas needed clarity. In this study, the researchers sought to protect the identity of the participants and assigned numbers to each participant for coding purposes. Further, in reporting the data, pseudonyms are utilised and not names or identifying features of the participants.

Whether research is conducted using qualitative, quantitative, or mixed methods, validity and reliability must be addressed. In the context of qualitative research, Creswell and Miller (2000) provide a basic framework of approaches to assess validity and reliability and have recommended that in undertaking and analysing qualitative studies, researchers should engage in at least two different validity procedures. The authors of this scholarly article heeded the view of Creswell and Miller (2000) and utilised three different validity procedures, namely: (1) disconfirming evidence, (2) peer debriefing, and (3) the peer review process.

Throughout the data analysis processes, peer debriefing was used. Peer debriefing entails reviewing the data and findings with individuals who are familiar with the study as well as the concepts being investigated. In this study, peer debriefing was conducted by the primary researcher and occurred with individuals from The UWI and the University of the Southern Caribbean. Additionally, the primary researcher conducted a search for disconfirming evidence on the narratives that

emanated from the semi-structured interviews. As the main themes developed, the primary researcher searched the data for evidence that contradicted them in order to ensure that disconfirming evidence did not outweigh the main themes. Another key strategy employed in this study to establish trustworthiness and credibility of the findings was the peer review process. Using the peer review process, the primary researcher analyzed the transcripts, however, an independent researcher reviewed the transcripts for comparisons, discussed the codes that were assigned to the data, and checked the emerging categories to ensure that they were correct.

Data Analysis

The data analysis process involved coding the data, comparing the codes, and grouping similar or related codes to form categories. It was a continuous, iterative process in which the codes and categories generated were constantly reviewed and refined. A guide developed by Braun and Clarke (2006) was used to conduct the thematic analysis on the data collected. Data elicitation of textual comments emanating from the participants' narratives was conducted in order to seek out similar themes. Using this analytical approach, the data were coded and this identified patterns and themes regarding participants' perspectives on the transition from face-to-face to online TLA. After data elicitation was conducted on the transcripts, several themes emerged. These themes were identified and categorised, and codes were developed within each theme. The primary researcher also classified patterns between categories with the aid of axial coding where thematic analysis procedures were used, followed by a presentation and interpretation of the results. The study utilised open coding, employing an inductive method (Maxwell 2005) and this meant that before coding began, the researchers did not have pre-established codes, rather, the participants' narratives were assessed for recurring words, thoughts and ideas before arranging them under themes.

Results and Discussion

The results of this study were gleaned from the data emanating from semi-structured interviews that were conducted with postgraduate students (n=20) in a criminology programme and their lecturers (n=5) at The UWI, St. Augustine. The results are presented in a manner that highlights the perspectives of both

lecturers and students. The researchers also answer the research questions and provide the major themes that emanated from the narratives of the participants. As the study was qualitative in nature, several participant quotes have been used and this is aimed at illuminating the voice of the participants.

The participants

The five lecturers assigned to the postgraduate programme in criminology and criminal justice at the tertiary institution under inquiry participated in the study. The lecturers included four males and one female, two were part-time and three were full-time lecturers on the programme with an average of 12.7 years of lecturing experience. From the cohort of students, there were seven males and thirteen females who ranged in age from twenty-three to forty-four years, with an average age of 32.7 years. Fourteen of the student participants were part-time students, while six were full-time students.

Answering the research questions

As it relates to RQ1: "What were the major challenges that students and lecturers faced as a result of the transition from face-to-face to online TLA?", the lecturers indicated the following challenges: lack of a faculty policy, safety issues (due to being on campus late to conduct lectures), lack of familiarity with online technologies, inadequate internet signals, student logging into lectures and being physically absent, lack of student participation, power outages, lack of internet at times, external noises and distractions when lecturing from home and inappropriate comments made by students when their microphones are not muted. The challenges experienced by the lecturers are consistent with the findings of previous studies, for example, on students' lack of participation in online lectures (Lockyer et al. 2006; Phillip and Cain 2015; Shen et al. 2009). However, the major challenge faced by lecturers as a result of the transition to online TLA was inadequate internet connectivity to conduct their teaching tasks.

The students' challenges included poor internet connectivity, lack of interaction with lecturers, distractions at home/work, background noise/interference, unfamiliarity with online platforms, lack of student engagement/group activities/discussions, demanding occurrences at home, distorted audio-recordings and The UWI administration not catering to the needs of students with disabilities.

However, the three major challenges that students faced as a result of the transition from face-to-face to online TLA were: (1) lack of interaction with lecturers, (2) poor internet connectivity, and (3) distractions at home/work. The lack of interaction was evinced by Participant #6 who asserted: "Being a mature student working during the day and having classes in the evening, even though I may feel tired during face-to-face classes, I am surrounded by classmates and my lecturer. However, being at home it is easier to drift off [lose focus] due to lack of in-class interactions."

The challenges faced by students are aligned with past research by Dhawan (2020), Esani (2010), Oyedotun (2020), and Sutton (2020) who articulated a plethora of challenges for student participants of online TLA including, but not limited to, digital inequalities, distractions at home and lack of interactions with lecturers and student colleagues.

In answering RQ2: "What were the major benefits that accrued to students and lecturers as a result of the transition from face-to-face to online TLA?", the lecturers' responses were wide and varied. The participants indicated the following benefits: working from home, not commuting to lectures, increased experience with online TLA, flexibility and innovation in lecturing, reaching students beyond the local and restrictive borders, gaining greater confidence as a new lecturer as there is less pressure from students when online compared to face-to-face and efficient use of time. However, the lecturers indicated that the major benefit that accrued to them as a result of the transition from face-to-face TLA to online TLA was learning the usage of different technologies and platforms for lecturing, for example, Zoom, BlackBoard Collaborate and Microsoft Teams.

The student participants indicated that the major benefits that accrued to them as a result of the transition from face-to-face TLA to online TLA were many and included: flexibility, convenience, time saving, cost efficiency, the ability to multitask, not having to leave work early to attend lectures and less stress as a result of not having the burden of traffic. However, for thirteen of the students, (1) convenience, (2) flexibility, and (3) cost efficiency/time saving were the top three benefits that accrued to the students as a result of not having to be physically present in a face-to-face lecture. Student participant #3 articulated the following view: "The convenience of not having to leave my home to go to class was a major benefit", while student participant #5 opined: "I can access classes from the comfort of my home or office." In a similar vein, student participant #7 asserted: "I do not have to spend money to travel from Tobago to Trinidad to attend class", while

student participant #2 stated: "My gas bill decreased, the cost of transportation was reduced and my overall auxiliary expenses were reduced." This finding is supported by the research of Oyedotun (2020) as well as the Online Education Trends Report (2020) which found that convenience and flexibility are benefits that accrue to students using online programmes rather than being on campus.

In response to RQ3: "What new opportunities were presented to students and their lecturers as a result of the transition from face-to-face to online TLA?", the lecturers indicated that new opportunities were presented to them as a result of the COVID-19 pandemic and the move away from the well-enmeshed and ever present face-to-face TLA of their pedagogical praxis at the university. New opportunities were presented to participant lecturers and this included the following: increased engagement with stakeholders, the provision of training and development opportunities related to online platforms, a wider array of approaches to lecturing, working from home, and the remote management of resources. The five lecturers indicated that the main new opportunity that was presented to them was the provision of training opportunities about online TLA platforms. The lecturers' position regarding new opportunities as a result of the transition to online TLA is supported by previous research by Mpungose (2020a) and Oyedotun (2020).

The majority of the students (n=11) indicated that no new opportunities were presented or accrued to them as a result of the transition from face-to-face to online TLA. Many of the students indicated that they were familiar with online platforms and as such this was not new to them. This finding is in stark contrast to Dhawan's (2020) finding that online TLA generally has a lot of available and new opportunities for students, lecturers, and academic institutions. From the limited positive responses garnered from the other student participants, the top three new opportunities that were presented to students included: (1) the opportunity to conduct more research due to the extra spare time given, (2) the opportunity to complete assignments while lectures were in progress, and (3) privacy, viz-à-viz, the opportunity to learn in their own spaces.

The final research question investigated "What were the lessons learnt by students and lecturers as a result of the transition from face-to-face to online TLA?" The lecturers indicated that they learnt a host of lessons including the need for flexibility as lecturers, patience in dealing with technology, and the limitedness of resources for students (lack of resources such as computers and internet), however, the major lesson learnt by lecturers was the limitedness of resources for students. In response to RQ #4, the students indicated that they

learnt a plethora of lessons due to the transition from face-to-face to online TLA. The lessons learnt by the students included: patience, adaptation, self-motivation, time management, self-accountability and the use of technology. For the majority of these students, the major lessons learnt were: (1) adaptation, (2) self-motivation, and (3) self-accountability. These lessons were encapsulated in the words of participant #20 who asserted: "As a postgraduate student you have to be open to change, manage your time efficiently, be self-accountable and most important, possess the ability to motivate yourself. I heard some of those things in academic advising, but the change to online cemented it for me."

Main themes – Lecturers

The researchers created themes that emanated from the participants' narratives, however, only the three top themes that emerged from both datasets (students and lecturers) will be presented. The discussion begins with the main themes that emanated from the narratives of the lecturers.

Theme 1: Training

Sub-theme – The provision of training on the usage of online technologies
Throughout the interviews, the five participants spoke overwhelmingly about the need for training of faculty on the use of online TLA platforms. In fact, this was a common thread running through the length and breadth of the participant interviews. For example, participant #4 stated: "The training provided by the university gave me the opportunity to learn a lot about available online technologies for teaching/learning as well as how to interact online and use online assessments." In a similar vein, it was noted that "COVID-19 at The UWI provided me with training in the usage of online teaching, learning and assessment platforms" (participant #3) and "there should be greater exposure of lecturers to training on the usage of online technologies" (participant #5).

Theme 2: Increased Experiences with the Use of Online Resources

The second most prevalent theme emanating from the lecturers' narratives was the increased experience with online TLA. Four of the participants indicated that as a result of the transition to online TLA they now have greater exposure and more experience with online TLA when compared to what existed pre-COVID-19 and

that it enhanced student learning. For example, participant #2 submitted: "The transition to online TLA has caused an increase in my experience with online teaching and learning", while participant #4 stated: "All of my lectures were done using in-class format lecturing and if I had an urgent appointment, I would cancel my lectures, however, in this new dispensation, I can be anywhere and conduct my lectures. Thanks to the pandemic and the move to online teaching, I now have much more experience with online teaching than what I had before – zero." These findings are complemented by researchers Mpungose (2020b) and Selwyn and Stirling (2016).

Theme 3: Interaction with Students

The third most prevalent theme that emanated from the participants' narratives was interaction with students and this was espoused by participants #1, 3, and 4. According to participant #1: "I prefer face-to-face lectures as there is [sic] greater levels of interaction with students. It is individualised. You place a face to a name, rather than seeing someone behind a screen. Also, you actually get to read the body-language and emotions of students when they say they understand and do not understand." Participant #3 submitted: "I like the interactive setting of the classroom. I think it is a better way to interact, engage, and develop better relationships with students." Similarly, participant #4 stated: "COVID-19 has reduced face-to-face meetings with my students, however, postgraduate teaching requires greater student engagement and interaction, especially with some of the more difficult courses."

Main themes – Students

Three main themes emanated from the narratives of the students. These are discussed below.

Theme 1: Convenience

Throughout the interviews, the students spoke glowingly about the convenience of online TLA and the fact that they can learn, attend lectures, and conduct assessments from the comfort of their homes and offices. While the students outlined numerous challenges they faced, convenience was the most common thread running throughout the length and breadth of the interviews. The element

of convenience was succinctly captured by student participant #18 who asserted: "The convenience and comfort of not leaving your home [to attend lectures] is great. I'm in New York, I have taught classes, I could attend from anywhere in the world."

Theme 2: Interactivity

Interacting with lecturers and their peers was a major concern for an overwhelming m11ajority of the participants (n=15). As the students were accustomed to face-to-face lectures, the lack of interaction and social presence was highlighted in the narratives of fifteen students who indicated that they missed the high level of interactivity offered by face-to-face TLA when compared to the present system of online TLA as a result of transitioning from face-to-face to online pedagogy.

Sub-theme 1 – Lack of Interaction

A majority of students (n=13) spoke to the lack of physical interaction with their peers and lecturers as a result of the current online TLA. Academic literature and research have confirmed the importance of student interaction with their lecturers in the educational process (Anderson et al. 2001; Garrison 2009; Garrison and Anderson 2003; Muirhead 2001), however, online TLA does not facilitate frequent and/or substantive interactions with lecturers and classmates. According to Bennett, Priest, and Macpherson (1999) and Phillip and Cain (2015) this lack of deep interaction is a common problem that afflicts online TLA and the student participants in the current study indicated this in their narratives. Instructively, this lack of student interaction with lecturers (and their classmates) is highlighted by the Community of Inquiry (COI) theoretical framework as espoused by Garrison and Anderson (2003) and which reflects a collaborative-constructivist approach to learning (*see* figure 3).

Sub-theme 2 – Social Presence

A great majority of student participants (n=13) submitted that the sudden transition to online TLA hampered their educational experience, to wit, their student-to-student interaction and concomitantly, caused a lack of social presence. Indeed, for students, non-interaction facilitates a lack of physical and face-to-face contact and leads to feelings of isolation or lack of social presence (Leh 2001) and this was evident in the student narratives. Shin (2002, 22) points out that social presence is the "sense of being in and belonging in a course and the ability to

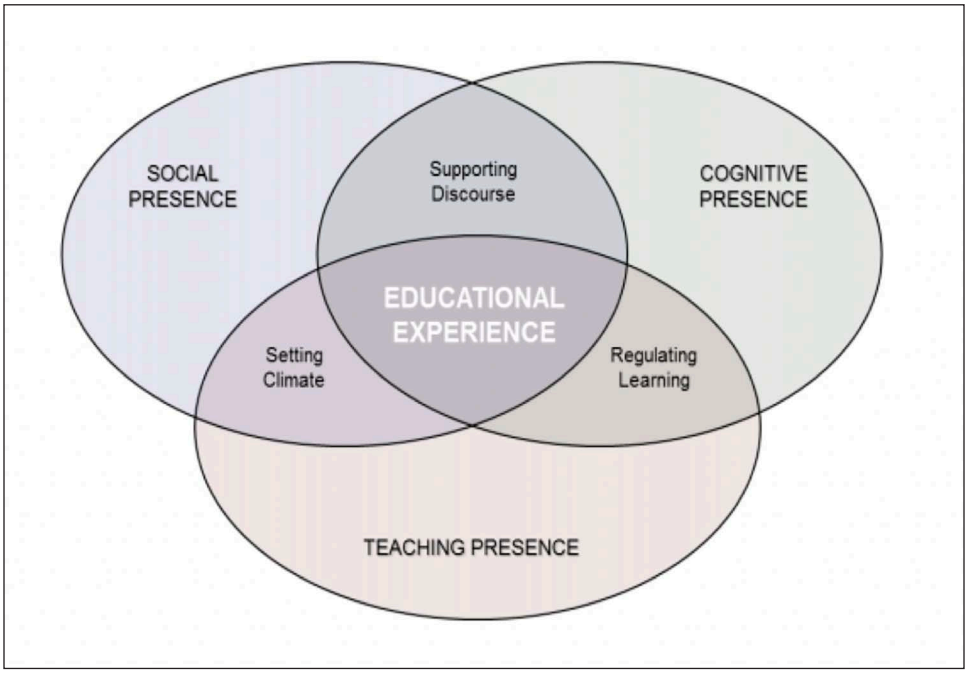

Figure 3. Community of Inquiry model.
Source: Garrison and Anderson, 2003.

interact with other students and an instructor although physical contact is not available" (*see* Esani 2010 for support), while Danchak, Walther, and Swan (2001, 1) submit that presence refers to the "involvement, warmth, and immediacy" that students experience during communication and interaction with their peers during online TLA. The importance of social presence in education is highlighted by the Community of Inquiry (COI) theoretical framework as espoused by Garrison and Anderson (2003) (*see* figure 3).

Theme 3: Challenges

The narratives of the student participants indicated that a little more than half of them were faced with numerous challenges as a result of the transition from face-to-face to online TLA. Participant #19 had this to say: "Some of my classmates may not say we had challenges or they may try to downplay it, but I had real challenges, from bad internet and students in the lecture with their microphones on, to distractions at home, problems logging into Zoom, and not being able to interact with my lecturers to get quick feedback, I had it all." This position

is complemented by Esani (2010), Chiasson et al. (2015), Mpungose (2020a) as well as by York et al. (2007) who posit that although online education offers convenience and flexibility for learners, there are numerous challenges associated with online TLA.

Lecturers' Perspectives

Three lecturers indicated that between March 2019 and March 2020, 76–100 per cent of their lectures were conducted face-to-face, while the other two lecturers submitted that 51–75 per cent of their lectures were conducted using face-to-face pedagogy during the aforementioned period. The participants pointed out that the face-to-face approach was utilised as this was the established and entrenched mode of teaching and learning at the institution. When asked why lectures were generally conducted using the face-to-face approach, participant #1 responded in the following manner: "That is the institutional way of lecturing, though some lecturers are taught to use blended and online learning when attending training in lecturing at The UWI [Certificate in University Teaching and Learning]."

Three of the lecturers preferred face-to-face to online teaching and the other two expressed their preference for online teaching. In response to the question regarding the preference of face-to-face versus online TLA, participants #1 and #3 responded in the following manner: "I prefer face-to-face lectures as there are greater levels of interaction with students. It is individualised. You place a face to a name, rather than seeing someone behind a screen. Also, you actually get to read the body language and emotions of students when they say they understand and do not understand" (participant #1), and "I like the interactive setting of the classroom. I think it is a better way to engage and develop better relationships with students" (participant #3).

A key question that was posed to the lecturers sought to gauge their views on the nature of the response by the administration at The UWI, St. Augustine as a result of the COVID-19 pandemic. The lecturers appeared hesitant to answer this question, however when probed, there was a general consensus that The UWI's response was generally professional and empathetic (though weak in a few areas). Participant #3 stated: "While experiencing challenges, the administration was effective in providing staff with the necessary training. They also made some of the university's resources available online. Furthermore, they adapted to the requirements of the Ministry of Health COVID-19 guidelines." In a similar vein,

participant #4 opined: "At first, response from administration was a bit pithy, however, they quickly grasped the severity of the situation and a raft of advisories and communiqués were frequently sent to both staff and students advising them on their health and well-being."

The lecturers were questioned on their preferred mode of teaching instruction if the COVID-19 pandemic and the associated restrictions were relaxed and the University returns to normalcy. Four of the lecturers indicated that they would prefer to utilise a combination of face-to-face and online TLA, while one lecturer indicated a preference for online TLA. Another question sought to elicit from the lecturers whether and how the administration at The UWI, St. Augustine could have better assisted faculty members to improve the transition from face-to-face TLA to online TLA. This question elicited a range of responses, however, a common thread running through the responses was the provision of training in online tools and equipping staff with the necessary resources to conduct their teaching tasks, such as headsets, cameras, and speakers. The following words were used to describe lecturers' experience of transitioning from face-to-face TLA to online TLA: exciting, innovative, positive, tough, and easy.

Students' Perspectives

Seventeen of the students indicated that between March 2019 and March 2020, 76–100 per cent of their lectures were conducted using face-to-face modalities. When asked for their thoughts on the rationale for the dominance of this method of TLA, the general response was that this was the traditional, established norm of TLA at The UWI, St. Augustine campus and that the lecturers had grown used to this method, hence they were not technologically savvy nor familiar with online platforms and procedures. As it relates to students' preference for face-to-face or online teaching and assessment, seventeen students indicated their preference for face-to-face teaching, fourteen of the twenty students had a preference for face-to-face final examinations, four preferred online final examinations and two of the students indicated that they held no preference for either method.

As it relates to the mode of final examination, student participant #12 posited: "There is always the risk of connectivity issues in online examinations. Face-to-face final examinations also takes away the distraction factor." Moreover, student participant #9 confirmed this in the following manner: "It is impossible to experience technical difficulties in face-to-face final examinations." On the

other hand, student participant #15 asserted: "Face-to-face final examinations ensure that I study and capture all the information taught to me for the entire semester and this helped me remember by learning/studying for exams. I am not motivated to study for online examinations and the information is not stuck in my brain because I can Google my answers for online exams."

Fifteen students proffered the view that learning is easier when lectures are conducted face-to-face, while two students were of the opposing view and one student felt that learning occurred whether face-to-face or in the online environment. When asked about their rationales for support afforded to face-to-face versus online lectures, several qualitative responses were elicited. For example, participant #1 stated: "Online classes are not as engaging as face-to-face. Being a deaf student, it is challenging at times to understand what is being taught and discussed via online technology", while student participant #3 quipped: "Because I live with my two kids and my husband, the environment for face-to-face is more conducive to learning." Similarly, student participant #13 stated: "I have grown accustomed to that style of learning [face-to-face]. It is more interactive as we get to meet people face-to-face and interact. This style of learning also does not present internet connectivity issues", while student participant #15 stated: "Having face-to-face lectures makes me pay attention to the lecturer and be interested in the topic being taught. I am usually distracted by other things when having class online."

Regarding the preference for online versus face-to-face teaching, two students proffered the following: "As a working student, I cannot always get to class on time. The online platforms allow me to log into the class from any location once I have an internet connection" (student participant #10), and "I think online teaching provides persons with the confidence to engage and interact more as opposed to in a classroom. Most times your cameras are off and you're not visible in the spotlight when asked a question" (student participant #14).

Conclusion

The participants indicated that they experienced a slew of challenges, however, in spite of the challenges encountered due to the sudden transition from face-to-face to online TLA, they generally experienced benefits and new opportunities, and learnt new lessons. The study's participants also indicated that despite the sudden transition, the administration at The UWI, St. Augustine handled the transition

fairly well and this was evidenced by the slew of advisories and communiqués on staff and student welfare that were circulated by the administration at The UWI, St. Augustine.

On the other hand, a minority of student participants commented that the needs of disadvantaged students (those with disabilities, limited financial and infrastructural resources) could have been better managed. The student participants also indicated that while there were numerous challenges that hindered them from realising a smooth transition, activities such as the continued provision of loaned laptops, provision of free internet, provision of training on the use of technology, maintaining communication with and provision of services for students with disabilities, improved communication systems and multimodal models of TLA – for example, a combination of face-to-face and online TLA – may be effective solutions in the context of COVID-19 and online TLA at The UWI, St. Augustine. Generally, the students and lecturers indicated that the challenges experienced in navigating the transition were outweighed by the benefits, opportunities and lessons learnt.

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Exploring Strategies for Assuring the Integrity of Remote Online Assessments

RICARDO ANDERSON

Abstract

Worldwide, universities have had to quickly transition teaching, learning and assessment to the online modality, given the widespread restrictions imposed by governments in response to COVID-19. Although some universities had embraced remote teaching and learning well before the COVID-19 pandemic, the integrity of remote assessments remains a significant concern for institutions and employers who demand competence in graduates. Prior to the pandemic, several tools were used, and different strategies explored for assessing students; however, the assessments done during the pandemic period revealed several anomalies across computing courses at The University of the West Indies. This paper explores the experiences and challenges with final assessment across computing courses, including suspected cheating. Discussion of experiences, analysis of anomalies and recommendations will provide generalisable assessment guidelines for assuring the integrity of assessments.

Keywords: online assessments, cheating, COVID-19 pandemic

Background and Introduction

The outbreak of the COVID-19 disease in December 2019, and its subsequent declaration as a global pandemic by the World Health Organization (WHO) in March 2020 (Coronavirus Disease [COVID-19] – Events as they Happen 2021), brought about much uncertainty. As the disease spread rapidly across the world

at the end of the first quarter of 2020, many governments began to restrict public gatherings and other social events in order to contain the spread. As a result, many institutions, including universities, significantly reduced face-to-face teaching and learning activities. Given the semester structure of many universities across the world, including The University of the West Indies (The UWI), quick action was required during the second half-of-semester months of academic year 2019/2020 to complete the semester without having face-to-face sessions.

Moving teaching and learning to online delivery mode had its challenges, more so with how assessments would be administered and how the integrity of these assessments may be preserved. The major challenge was how to minimise the student's use of unauthorised materials or external help, ensuring that what was done reflected their ability and was not based on help received during the assessment. Many higher education stakeholders expressed several concerns, including the state of technology infrastructure to support the transition to online mode, the need to preserve academic integrity, and student access to the appropriate technologies in order to continue engagement in the teaching-learning process.

As the transition to online began, significant planning to manage the end of semester assessments began. The UWI changed the dates for the administration of exams and extended the usual examination period. This allowed adjustments to be made to assessment methods and time for these adjustments to be approved under The UWI's regulations. Internal discussions among instructors revealed a major concern about how to maintain the integrity of remotely administered final examinations. The discussions sought to identify key measures to minimise the likelihood or incidence of academic dishonesty (cheating), and how to address any incidents, given the new reality of remotely administered assessments.

The fraud triangle espouses the view that three conditions are needed for someone to perpetrate dishonest behaviour: pressure/incentive to perpetrate, opportunity, and attitude/rationalisation to justify fraudulent action (Lou and Wang 2009). The remote administration of assessments, combined with the design of an assessment, may provide the opportunity to cheat. The desire to achieve good grades may provide incentive, as grades are seen as important to career success since more desirable jobs and prospects for further studies are more accessible to top performers. Students may therefore be inclined to achieve good grades by any means necessary, even by cheating in some cases (McCabe, Treviño, and Butterfield 2001). Students' attitudes may be the only missing link in this model. Nevertheless, the concerns of dishonesty remain.

Random variations in student performance on assessments may be attributed to changes in the design of assessments, methods of assessment, or random variations in students taking a course. Statistically significant variations in student performance, however, require more thorough investigation of factors that may have resulted in such variations. Given that remote administration of assessments provides opportunities for cheating, it is important to quantify the prevalence of cheating, especially where there are statistically significant changes in performance year over year. Further, since the objective of assessments is to determine if students have achieved defined competencies, the integrity of the assessment is challenged when students cheat. Conversely, the integrity of remote assessments may benefit from design and administration strategies that reduce cheating. As a starting point, it is useful to determine whether student performance changed for remotely administered assessments compared to other periods, and what factors may have contributed to any observed changes or lack thereof.

This study investigates and details the experiences with final assessment of courses in the Department of Computing at The UWI. The paper seeks to identify any differences in student performance over comparative periods of offer of the same courses. The initial offer of courses, which is the baseline, reflects face-to-face assessment, while the second offer is done using online modality. Experiences of instructors in specific courses where academic dishonesty is detected are discussed and synthesised to identify best practices from existing literature that may be applied.

In the ensuing section, contributions are presented from other scholars on the issues surrounding academic dishonesty and measures explored to detect and/or prevent cheating. Thereafter, the methodology for this study is given, followed by the results, discussion, and conclusions.

Related works

Virtual learning is defined as the use of software systems to support teaching and learning. It allows teachers and learners to interact in an integrated, online environment (Bri et al. 2009). These systems facilitate remote education through the worldwide web (Ubell 2000). An important component of the teaching and learning process is assessment. In virtual learning environments, assessments are usually administered remotely.

Remote assessments are typically provided via the internet to candidates who answer questions by uploading response files or inputs in customised webforms (Thomas et al. 2002). Synchronous assessments usually require candidates to stay connected to the online examination resource during the assessment and submit responses in a fixed time. Asynchronous assessments may provide longer periods for completion and do not usually require consistent connection to the assessment server.

One of the earliest applications of assessment in remote learning was a software tool that autocorrected subject specific activities and allowed instructors to assess the learning level and possible deficiencies of the students (Wong and Ng 2016). With increased use of remote learning technologies, many additional tools and approaches have been adapted for this mode of education delivery. Although administering assessments remotely enables cheaper and more consistent grading and greater ease of capturing and marking responses (Shermis et al. 2001), assessments used for summative purposes may more readily facilitate cheating (Thomas et al. 2002).

Academic dishonesty includes several variations of unacceptable student behaviours such as copying other students' answers, using prohibited materials or using materials without appropriate attribution (Alghamdi, Rajab, and Rashid 2016). Specifically, cheating is the use or attempt to use unauthorised materials, information or study aids in any academic exercise (Pavela 1997). This of course extends to human help in providing materials or support when otherwise not allowed. Ullah, Xiao, and Barker (2016) classify cheating activities into two discrete areas of collusion and non-collusion. Non-collusion includes copying from the internet, books, or other unauthorized sources and plagiarism. Collusion includes impersonation, credential sharing, abetting, and screen sharing.

The detection and prevention of academic dishonesty have received much attention in the last decade, especially given increases in online education options. These concerns would naturally become more widespread, given adjustments across institutions to curtail COVID-19 infections. Whilst cheating occurs in face-to-face proctored assessments, evidence suggests that more widespread cheating occurs in remotely administered assessments (Hollister and Berenson 2009; King, Guyette, and Piotrowski 2009).

Cheating detection has seen different approaches in the literature, including using simple descriptive statistics to identify patterns in performance over comparative assessments or periods. Other methods include surveys of

students with the hope that they admit to cheating (D'Souza and Siegfeldt 2017). De Leeuw, Hox, and Dillman (2008) note that surveys in general may suffer from underreporting. Therefore, studies that use surveys to assess how widespread cheating occurs in unproctored assessments should be carefully reported and interpreted (Fask, Englander, and Wang 2014). Underreporting may occur for several reasons including students' unwillingness to admit that they cheated, as well as whether the studies are representative of different disciplines or courses which may be more challenging to students, inducing them to seek unauthorised help. The problem may therefore not emerge extensively in these studies and the problem may be much larger than reported. Other studies report cheating in undergraduate courses ranging from 9% to 90%, with recent studies further confirming alarming rates of cheating in higher education (Hsiao 2015; Arnold 2016; Burgason, Sefiha, and Briggs 2019).

Given the problems identified with online assessments and the widespread cheating reported in several studies, options for reducing the likelihood of cheating have been studied and reported. D'Souza and Siegfeldt (2017) propose a framework that applies several quantitative techniques to detect cheating in different types of assessments. Chuang, Yuan, Craig, and Femiani (2017) suggest a method to detect cheating in online assessments based on time delays of the student combined with their head movement. This requires the use of a video recording device such as a webcam. Unfortunately, this may not always be practicable since students may not have the appropriate equipment or enough bandwidth to use video while completing an assessment synchronously. Further, some students may access the internet on metered connections where the data transfer is limited, making it likely to lose connectivity if the data transfer quota is exhausted.

Students' motivation for cheating has also been widely studied. In a cross-cultural study involving university students in the USA and Israel, researchers observed that students' propensity to engage in academic dishonesty was influenced by a few key variables. These include the students' motivational orientation, personality traits, students' perception of the opportunities to cheat, students' attitude towards punishment for acts of academic dishonesty, type of course enrolment (elective vs. required), and attitudes of instructors towards academic dishonesty (Peled et al. 2019).

Contract cheating (where someone else is hired to complete an assessment for the student) has also been studied, specific to computer science education. Computer science integrity violations account for 37 per cent of academic integrity

violations over a ten-year period (Graziano et al. 2019). Unfortunately, contract cheating cannot be easily detected by common plagiarism tools.

Academic dishonesty undermines the integrity of qualifications, particularly in higher educational institutions (Baron and Crooks 2005; Hemming 2010; Faurer 2013). It is therefore a major objective of higher educational institutions to conduct assessments in a way that ensures the grades students earn truly reflect their abilities (Cluskey, Ehlen, and Raiborn 2011).

The literature confirms that cheating in higher education is a major issue and remote assessments provide an even greater opportunity for cheating to be more widespread. Given the current situation where COVID-19 has forced many higher education institutions to conduct remote assessments, it is necessary to study whether student performance varies when compared to face-to-face mode, and whether this is attributable to the remote administration of these assessments.

Methodology

This study uses both quantitative and qualitative data collected using several techniques. All data collected relate to courses offered by the Department of Computing at The UWI. The key data relate to students' final scores for courses, assessment structure and administration of each course, instructor feedback on suspected cheating, and official reports of suspected cheating.

Given the adjustments imposed by COVID-19, the Department held several meetings to discuss strategies for administering remote examinations and to solicit feedback from instructors on the methods to be used for final assessments. Subsequent to the examination period, faculty members discussed experiences and outcomes from remote assessments. Three sets of meeting minutes and recordings were examined to elicit experiences with course assessments and to capture information on assessment structure used, types of assessment administered, student experiences with the assessment, and lessons learnt along with outcomes after the assessments were administered. Additionally, formal documentation prepared as feedback to the university, on final assessments for Semester 2 2019/2020, was reviewed. This feedback documented the actual suspected shortfalls of the assessments reported by instructors. Where the full information for a course was not available in the documents reviewed, a questionnaire requesting the additional information regarding assessment type and experience with administration of the assessment was circulated to instructors. A request for the documents

and details about the course assessments and experience in administering their assessments accompanied the questionnaire. Group chat messages exchanged by members of the department surrounding final assessments for Semester 2, 2019/2020 examination period were also examined. Over the period covered by this study, eighteen instructors were engaged in the delivery of courses. Courses for which all the information required could not be collected were excluded from the study. Table 1 shows the courses included in the study.

Quantitative data were collected from the mark sheets for courses offered over the two comparative semesters of academic years 2018/2019 and 2019/2020. The number of students achieving specific grades (A, B, C) and the number of failures in each course were recorded. Course enrolment numbers ranged from 15 to 230 students. Graduate level courses and streams that were not based at the Mona Campus were excluded from the collected data.

The mark sheet data were grouped by course and descriptive statistical analyses applied to determine whether there were differences in achievement levels between the periods under review, and to determine the significance of any changes in the achievement levels across the comparative period for each course. Further, outcomes from marking the assessments, the experiences with suspected cheating, and the viewpoint of instructors were captured. This included perspectives on how different assessment designs or methods of administering assessments may have prevented or were ineffective in safeguarding the integrity of assessments. These were grouped and analyzed to identify similarities, differences, weaknesses, and strengths in order to recommend best practices and avoid pitfalls.

Results

In Semester 2 of both 2018/2019 and 2019/2020, the department offered twenty-three courses that had a final written assessment and were therefore included in the data collection. At the end of the data collection, however, only seventeen courses (*see* table 1) had complete information to satisfy the analyses done in the study; six courses were excluded on the basis of incomplete data. The analyses proceeded with basic descriptive statistics of the performance differences between the two periods for each course. The results indicate that there was an overall improvement in performance across all courses in the 2019/2020 year over the previous year. Overall, there was an average of 15.4% increase in the number of students achieving grade 'A' across the courses, 6.7% and 2.7% reduction in grades 'B' and 'C' respectively, and 6.1% average reduction in failures across all courses.

Table 1. Courses included in the study

Course Code	Course Name
COMP1126	Introduction to Computing I
COMP1127	Introduction to Computing II
COMP1161	Object-Oriented Programming
COMP1210	Mathematics for Computing
COMP1220	Computing and Society
COMP2130	Systems Programming
COMP2211	Analysis of Algorithms
COMP2171	Object Oriented Design & Implementation
COMP2340	Computer Systems Organization
INFO2100	Mathematics and Statistics for IT
COMP3161	Database Management Systems
COMP3162	Data Science Principles
COMP3702	Theory of Computation
INFO3180	Dynamic Web Development II
INFO3435	Ecommerce
SWEN3165	Software Testing
SWEN3185	Formal Methods and Software Reliability

Figure 1 illustrates the percentage change in grades achieved by course over the two periods. As shown, differences in the achievement levels for some courses varied widely. At the extremes, one course recorded a 30% reduction in the number of students achieving grade 'C', another course shows 46% increase in the number of students achieving grade 'A'.

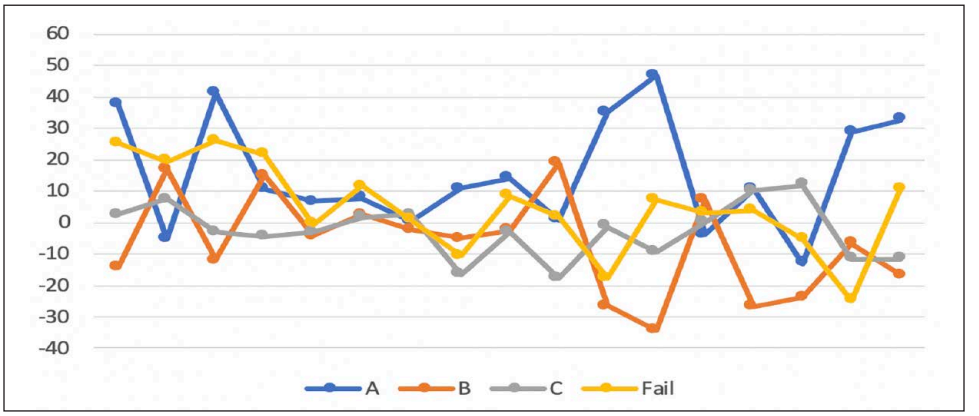

Figure 1. Percentage change in performance levels by course

Table 2. Percentage change in achievement of each grade by course

Course Code	% Change in A's	% Change in B's	% Change in C's	% Change in F's
COMP1126	37.5	-14.2	2.5	-25.2
COMP1127	-5.3	16.9	7.5	-19.4
COMP1161	41.3	-11.8	-3.1	-26.1
COMP1210	10.7	15.1	-4.4	-21.6
COMP1220	6.8	-4.2	-3.0	0.7
COMP2130	7.6	2.7	1.6	-11.7
COMP2211	0.6	-2.2	2.7	-0.8
COMP3161	11.0	-5.0	-16.6	10.5
COMP3702	13.9	-2.7	-2.8	-8.3
INFO2100	0.9	18.9	-17.7	-2.1
INFO3180	35.2	-26.4	-1.3	-7.4
INFO3435	46.8	-34.4	-9.3	-3.1
SWEN3165	-3.9	7.4	0.0	-3.8
SWEN3185	10.8	-26.6	10.1	5.4
COMP3162	-13.0	-23.7	11.9	24.9
COMP2171	28.8	-6.7	-11.5	-10.7
COMP2340	32.7	-16.7	-11.7	-4.2

Specifically, 35% of courses (six courses) recorded at least a 10% decrease in the number of failures in the 2019/2020 period when compared to the previous year, while only one course (COMP3162) recorded a more than 20% increase in the percentage of students who failed in 2019/2020 over the prior period.

Table 2 gives a breakdown of the percentage change in achievement of different grades by course over the periods 2018/2019 and 2019/2020. Values with the negative (-) sign indicate a percentage decrease in 2019/2020 when compared with 2018/2019, while values without a sign indicate a percentage increase over the same period.

The analysis of the recorded achievement levels over the two periods was carried out using two-sample t-test for each achievement level. The results related to achievement differences for percentage of students receiving grades 'A', 'B', 'C' and the percentage that failed are shown in table 3.

Based on the p-values from the t-tests on the percentage of students achieving different grades over the two periods (table 3), only the change in percentage for

Table 3. T-test result for each achievement level compared for Semester 2, 2018/2019 and 2019/2020

Achievement Levels	P-value
A	0.0463
B	0.1789
C	0.3781
Fail	0.3743

students achieving grade 'A' is statistically significant with a p-value of *0.0463*. Overall, the difference in the percentages of students who passed courses studied in both periods was not statistically significant, with the t-test returning a p-value of *0.3715*. This therefore indicates that, except in the case of the percentage of grade 'A' recorded, the other changes represent random variations which are not statistically significant.

Assessment Structure and Academic Dishonesty

Instructors generally maintained the format of their final assessment in the 2019/2020 examination period, although they adjusted the number of questions and the way questions were structured to compensate for the remote administration. Some instructors (such as those for COMP3162 and COMP1161), modified questions to require more explanations and examples, making it more difficult to have identical answers without indicating collusion. In other cases, instructors extended or created new question banks for multiple choice questions (MCQs). This had the effect of either introducing MCQs into the 2019/2020 assessment or increasing the number of MCQs used as a proportion of the overall assessment over the prior year. Overall, 88% of courses included in the study had at least one structured question on the final assessment paper in the 2019/2020 period, consistent with its structure in the previous academic year. Instructors also used randomised questions so that the question order, or specific groups of questions for one student would be different for another. These questions were carefully curated to ensure consistency in the number, topic coverage and difficulty level for all students alike, although the specific questions for each student would vary randomly for each topic assessed.

Instructors in at least four courses (23%) noted that as they marked structured questions types, student responses to questions in a number of cases raised sus-

picion of cheating. Further, in post-assessment discussions with students, it was noted that they had large course-specific WhatsApp groups used to share information; in some cases, assessment questions and suggested answers were shared openly. Hence, some of these groups served as channels of academic dishonesty.

Although the suspected cases of collusion, based on solutions submitted in many courses, were not collated and reported formally by some instructors, the post-assessment review provided evidence of concerning levels of collaboration among students, beyond what would be possible if assessments were face-to-face and proctored. Collusion was further enabled given that most assessments had a window of at least twenty-four hours (with some up to seventy-two hours) during which students were allowed to attempt the assessment, although they had a fixed time to finish once they started. Therefore, students could share their experiences and answers with others who attempted the examination later in the window of time. Two courses (COMP2211 and COMP3162) had official reports of 17% and 23% of suspected cheating. These cases included identical responses to specific questions from the assessments. Notably, the highest rate of suspected cheating was in a core course (COMP2211) that, if failed, would prove a major setback to students completing their degree in the required time. Additionally, the content covered in this course has been generally reported by students over the years as difficult to grasp. This assessment did not use randomised questions.

Discussion

The results confirm both the existence of academic dishonesty, found more extensively in specific courses, and relatively random variations in achievement except for the percentage of students achieving grade 'A'.

The statistically significant change in the percentage of students achieving grade 'A' can possibly be attributed to one of the following:

- Increased use of materials or help during assessments since they were not proctored to prevent such use or collusion of students. Collusion may have manifested in different forms ranging from sharing of ideas, giving guidance to improve answers, or sharing questions to allow more time to attempt before starting the assessment officially (in the case of timed assessments). These activities may not have resulted in students submitting comparably similar or identical responses, hence these submissions may not have been flagged as suspected cases of cheating, though they reflect academic dishonesty.

- The semester was extended due to a temporary closure for four weeks (after nine weeks of teaching). This provided additional time for students to review materials, explore content and prepare for final assessments, resulting in many students being better prepared for final assessments.

The level of cheating observed across computing courses based on lecturer reports in general was low. However, many submissions were identified as meeting the standard for review based on their similarity to other responses. This relatively low reporting of official cheating numbers is consistent with previous findings on underreporting of cheating (Fask, Englander, and Wang 2014). The informal discussions that ensued and some post-assessment hearings for students who were reported for suspected cheating, also provided insights into the use of WhatsApp and other tools to enable sharing and, in some cases, collaboration on assessments. These types of activities are examples of collusion as described by Ullah, Xiao, and Barker (2016). The existence of suspected cheating underscores the need for instructors to consider some key options for the preparation and administration of assessments.

The high percentage of suspected cases of cheating reported in two courses is cause for concern, especially given that one is a core requirement for students registered in the computer science major. This cohort of students therefore has a significant number of students (37) who are suspected of cheating in one course, although they may not have cheated in other courses. These students would represent approximately 23% of the cohort. Strategies are therefore needed to reduce the likelihood of cheating among students, for this and future cohorts across different courses. As Peled et al. (2019) note, opportunity to cheat, and type of course, are factors that influence students' decision to cheat.

Conversely, several courses reported no suspected cases of cheating. Among them are many that had assessments with questions that could easily provide evidence of collusion. Instructors across these assessments identified some strategies which were employed both in their design and administration of the assessments. These include

- **For Multiple Choice Questions**
  - Shuffling options randomly for each student. This made it less likely that if a student shared the letters of answers they would be correct for another student attempting the same question.
  - Randomly sequencing questions to ensure the order of questions, and

possibly topics, are not in the same order for different students attempting the assessment.
    - Increasing the number of questions for topics being assessed, to ensure that different students would get a more random set of questions. This increased the likelihood of students not doing the same questions, hence making answer sharing ineffective.

- **For structured questions**
    - Generating random changes to question sections so that the same question had different values, or different requirements for the responses. This also included, in some cases, the illustrations (models) used in the question.
    - Requiring more descriptive answers that incorporated specific examples. This provided a basis for identifying answers that may have been the result of collusion. In these cases, students were required to provide explanations from their perspectives.

- **In administering the assessments**
  Restricting the amount of time to complete the assessment. A time limit was set within which students had to complete the assessment once they started the attempt. This should have had the effect of forcing students to work on completing on time and may have provided fewer opportunities for recording and sharing questions and answers.

These and other strategies have been studied and documented with varying levels of effectiveness reported. Table 4 provides a summary and grouping of strategies for preventing or reducing the ability of students to cheat explored in several studies. D'Souza and Siegfeldt, (2017) provide a discussion of the strategies summarised in table 4.

Instructors across different course types and subject areas may have limited options based on the type of content delivered and the course objectives. However, varying the question types, carefully selecting timing, and randomising questions may be options available to many course types and disciplines. Even in cases where questions requiring more descriptive responses may not be incorporated into the assessment, generally, designing more assessment questions that require higher order thinking and analysis may be an option.

It is important that students be oriented to develop honest attitudes, and to view and approach assessments as a reflection of their own competence, not of others. It can be argued that students with the right attitudes towards honesty will

Table 4. Summary of strategies to reduce or prevent cheating

Question Design	Scramble multiple choice answers so that every student gets a different answer sequence presented. Provide multiple exams when possible without the knowledge of students. Both exams must have the same format with slight changes in wording and parameters.
Timing	Provide only the time that it would take an average student to complete the full exam. A student finishing an exam in an abnormally short time may be a cheating suspect. Compare each student's exam times with the average for the class. Check the clock time at which cheating students started and finished the exam, and compare this with the time span of other students to determine if they worked in groups.
Assessment Administration	Present questions one at a time and/in a random fashion with no backtracking. Check examination scripts with the same score to see if there is any distinctive similarity between the answers to questions.

not engage in dishonest behaviours. Additionally, clear and frequent reminders of the consequences and policies regarding cheating may deter cheating. Some students may also reconsider their actions if they are convinced that instructors will take steps to detect cheating in submissions and will take actions based on clearly defined rules. The threat of punitive action and knowledge that review and detection tools will be used are useful strategies, in addition to timing, question design, and assessment administration options.

Students across university campuses no doubt may continue to be tempted to find innovative ways to maximise their scores on assessments and, depending on their motivations and the opportunities, may engage in academic dishonesty. As has been demonstrated in this study and the literature, it is difficult to reliably determine the extent to which students cheat. However, especially in higher education institutions, the integrity of assessments is critical to maintaining their academic excellence ranking and the quality associated with the degrees they award. Further, employers depend on universities to provide competent graduates. Whenever a degree is awarded, this should give reasonable assurance

that the graduate has achieved a level of mastery and the reflected performance can be trusted as a true measure of the person's performance and abilities. This makes it critical for our institutions to provide strong controls and detection capabilities to prevent and detect cheating. Further, strong action is necessary in cases where students are proven to have cheated. By implementing and enforcing appropriate regulations, institutions can demonstrate intolerance for academic dishonesty.

Conclusion

This paper investigates changes in student performance in remote versus face-to-face assessments and the prevalence of cheating in the remotely administered assessments. With the advent of the COVID-19 pandemic and the forced transition to online teaching and learning, assessments have had to also be administered remotely. The study provides insight into the experiences with remote assessments conducted in the Computing Department at The UWI and highlights generalisable strategies that are useful in reducing academic dishonesty.

Although several authors have reported widespread cheating in higher education assessments generally, others have noted that there is general underreporting of cheating across the disciplines. This study was done to establish whether the transition from usually face-to-face assessments to remote assessments resulted in any significant change in student performance. Courses offered over Semester 2 of both 2018/2019 and 2019/2020 academic years were analyzed. The analysis showed a statistically significant increase in the percentage of students earning grade 'A' across courses. However, all other comparative scores had changes that were not statistically significant. The percentage of students suspected of cheating across all courses was not formally reported, though formal reports were made for two courses. The reports reflected 17% and 37% cheating respectively. Students involved were reported for disciplinary action.

The study advances our understanding of performance changes resulting from transition of assessments to remote administration. Additionally, important implementable strategies discussed in this study can provide important improvements in the design and administration of assessments for remote learning. Although some strategies may not be applicable to all disciplines, in general, the design and administration of assessments provide the most viable options to reduce cheating. In cases where cheating occurs, detecting and effectively applying punitive actions

outlined in institutional policies should be prioritised to secure the integrity of the assessment and hence, the degrees awarded by the institution.

One limitation of the study is that the performance and experiences relate only to computing courses. This could be expanded to include a broader range of courses across The UWI to get a more general and comprehensive assessment of performance changes and prevalence of cheating.

Administration of remote assessments requires developing and applying strategies that prevent and detect cheating. Some future directions may include more widespread exploration of changes in performance across disciplines at the university. These could include examining the methods used, whether collusive or non-collusive, and identifying specific strategies and regulations that may address the specific nuances of methods used by students across disciplines.

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Transitioning to a Digital Educational Environment

A Lecturer's Perspective on Migrating to Google Classroom During the COVID-19 Pandemic in Trinidad and Tobago

JASON ROBERT RAMESHWAR

Abstract

This paper highlights disruptions to traditional learning environments in the Trinidad and Tobago educational system during the COVID-19 pandemic. It outlines issues due to social distancing restrictions as well as strategies using digital integrations to achieve educational continuity.

This research focused on a case study of a lecturer's experience in educational digital transformation using Google Classroom. It was done through direct observations of each student's response to changes in the educational platform and style of learning. This involved administration of ad hoc open-ended unstructured qualitative questions to students during the transition. The students' feedback identified thematic areas (of digital well-being, digital transformation, and online platform access) that were used in a scoping literature review using Google Scholar.

The effect of transitioning from the physical classroom to an online platform revealed that the majority of students were able to access the system with limited disruption.

Practical implications of this experiential case study would be the application of the developmental elements of the digital transformation policy. This involved the identification of a best practice approach. This achieved

four pillars of Industry 4.0 benefits, and also identified the use of interactive elements as extended reality (AR, VR, MR) and haptic technologies for STEAM focused courses.

The value of the paper is in the detailed use of the Google platform and provision of a solution for easier integration of remote applications to enable a faster migration to alternate teaching modalities.

Keywords: digital integration; asynchronous assessment; disruptive education

Contextual Background

The author has been a lecturer at a Trinidadian tertiary institution for approximately ten years in which the primary mode of disseminating information and immediate evaluation was via face-to-face, with class sizes ranging from five to over twenty students. The composition of students within a particular class varied in terms of age (limits of 18 to 60+ yrs), gender, family structure (single, married, parents), ethnicity, educational background (secondary and tertiary schools), and technical experience (industrial and non-industrial).

Classes were abruptly ended on the 14 March 2020 due to the seriousness of the COVID-19 pandemic. The need for continuity was critical to ensure students received contractual teaching days. Google Classroom was identified as the digital learning environment to continue classes.

For confidentiality, the following details are withheld from this paper:

- Name and location of the educational institution
- Course(s) that transitioned to the online mode
- Names of lecturer(s) and student(s)

Limitations

The research is based only upon the author's experience and the feedback of the students involved in the taught classes during the COVID-19 pandemic period. It does not investigate the effects of the transition on other functions of the institution. The focus is only on the Google Classroom platform provided by the author's educational institution and not on other types of online collaborative

or learning management systems (LMS). The research does not aim to provide a justification for the selection of a specific type of learning environment.

Literature Review

Google Classroom is identified as an effective digital learning environment (Kumar, Bervell, and Osman 2020; Al-Maroof and Salloum 2020; Albashtawi and Al Bataineh 2020; Abd. Syakur, Sugirin, and Widiarni 2020; Joy et al. 2018) most institutions, including Malaysian higher educational institutions, are adopting this learning management system (LMS, although it has a drawback in that "students lack understanding of lecture material" (Fitri Rahmawati, Zidni, and Suhupawati 2020). Thus, although it is a useful short-term alternative to in-class sessions, Google Classroom is not a direct replacement.

This adoption increased as a result of the lockdown restrictions of COVID-19, in which digital alternatives were identified to provide remote access to educational resources ("Teachers/Students Being Provided with Access to Google Classroom", Loop News 2020a; *Barbados Today* 2020; De Vynck and Bergen 2020). Caribbean educational institutions transitioned to the use of Google Classroom either directly or with the aid of third-party ICT companies, such as Blue Chip Technologies. This company enabled Google Classroom environments for "Naparima College, St Peter's Private Primary School, Cedar Grove Primary School and San Fernando TML School" (De Silva 2020) and noted the key benefits, as the system is always-on and available 24/7, and also facilitates remote interactions between teachers and students. However, the benefits were limited by the ability to access ICT equipment and the internet. Thus, there was a minimum set of resources required to effectively utilise the online system. Teachers and students without key equipment were at a disadvantage as classes resumed online.

The change from a structured educational environment (with defined parameters as dress code, assigned seating, permission for taking breaks) to a flexible and unstructured home-based environment (reduced enforcement of rules and regulations) created freedom of choice for teachers, students, and parents (or guardians). Reports have been made regarding inappropriate attire whilst visible via the webcam, interruptions during the lessons, direct assistance to answering assessments and use of unauthorised devices ("10 Ways Parents Disrupt Children's Google Classrooms during COVID-19" 2020b). This home-based system increased the exposure to noise hazards, as parents continually experienced the

sounds of interactions in an online class (Gooding 2020). This introduced the issues of privacy and digital well-being as critical factors.

Google Classroom appeared in 2014 (Etherington 2014; Kahn 2014) and evolved to integrate various applications to enhance the functionality of the learning environment. It facilitated the interconnection between physically separate educational resources (teachers and reference material) in a flexible digital environment in which students can access these facilities from any physical location (once there is a connection to the internet). This change in the learning environment is part of the Industry 4.0 (I4.0) concept applied to education. The I4.0 concept can be defined as "the evolutionary change in decentralised connected systems to enable the intelligent integration of the horizontal and vertical value chains of an organisation" (King, Rameshwar, and Syan 2020, 370). Many of the benefits of I4.0 can be realised by this educational evolution, as

- real-time communication between teacher and student;
- individual attention as well as customised lesson plans and learning outcomes;
- access to multiple sources of information to develop strategic, innovative, sustainable, and critical thinking that develop intelligence;
- economical use of assets via the Cloud platform.

The transition from physical to virtual is problematic (Vincent 2020a; 2020b) as the learning paradigm becomes individualised (a by-product of I4.0). Copyright infringement due to reference material being shared with students online attracts severe penalties (Paul 2020). Unauthorised access has encouraged class disruptions once the class access code and password were provided (News Desk 2020). Users of the platform and content creators must understand the effects of the digital learning environment on pedagogical factors as "ease of access, collaboration, student voice/agency and pace" (Heggart and Yoo 2018) and recognise the transition is not seamless. This reinforces the point that educators must be part of the change process to modify their existing strategies to incorporate new technologies into each student's development as it is "not enough to put technology into the classroom" (Helleve and Almås 2017).

Methodology

The rationale for the research was the result of experiences of the digital transition from the physical classroom to the Google Classroom system. This transformation

involved the author and fifteen students. As such, the research was reflexive, ethnographic, and anecdotal (Fleming and Fullagar 2007; Dupuis 1999; Gergen and Gergen 1991; den Outer, Handley, and Price 2013; Koballa 1986). These processes identified the initial (unfiltered and unbiased) impressions of the immediate users of the new platform. The feedback was not influenced by the boundaries of a structured or closed-ended questionnaire and neither via the presence of an interviewer, as the only interactions were those between a teacher and the students.

This was not an unbiased study as the researcher was one of the subjects. However, there was validity in capturing the responses and performing an analysis to identify key thematic areas that affected the change.

The specific modalities implemented were the case study and ad hoc open-ended unstructured qualitative questions. The former involved the direct observation of each student's response to changes in the educational platform and style of learning. The latter was based on the experiential feedback of both the students and the author. Each qualitative question was developed in direct response to a student's comments to the prescriptive and forced modifications of the learning environment.

Anecdotal evidence was derived through an examination of personal opinions on the change in teaching modality from face-to-face to online. This provided an initial research framework without any pre-existing data on the forced movement to online education (i.e. there was no direct need to utilise Google Classroom to ensure class continuity due to a disruption).

These covered thematic areas of

- **Digital well-being factors**, such as
  - ability to sit, view a screen, type and talk continuously for 3 hours
  - eye strain
  - leg cramps
  - posture due to a poorly designed ergonomic chair, desk, keyboard, monitor or foot rest
  - effect of adding 3 hours of continuous computer usage to an existing daily computer use;

- **Access to Google Classroom and Google Meet** which were dependent upon
  - reliable internet and electricity on the scheduled class dates and for the duration of each session
  - ability to access the Classroom and its resources, including the Google Meet live sessions

  - functional microphone and speaker for real-time bi-directional audio communication;

- **Transitioning to online** which was affected by
  - distractions due to noisy locations, where users participated in Google Meet, as well as the use of other electronic devices (hidden from view)
  - disconnected feelings of users due to the lack of physical presence
  - reduced preparedness for sessions due to a loss of structured "school" atmosphere, as the routine "for school" was changed
  - increased anxiety due to uncertainty about procedures for assessments (mid-term, group project and final exams).

A scoping literature review (Munn et al. 2018; Arksey and O'Malley 2005) using Google Scholar (Haddaway et al. 2015; Cole et al. 2018) of thematic areas was performed. A comparative analysis was made between the observed responses (and anecdotal data) and the data from the literature reviews to develop a strategy and solution for integrating digital services for education.

Results and Analysis

Transition to Google Classroom

The transition flowchart (figure 1) was based upon the process to move the physical in-class sessions to the Google Classroom platform. Analysis of this process highlighted that a successful transition to a digital classroom environment is based upon key segments, as

- allotted time for teacher training;
- digitalisation of learning resource material;
- customisation of system parameters to satisfy each student's individual requirements.

Thus, the creation of a digital classroom is dependent upon the consideration of the following activities:

- digital twinning of the physical environment;
- duplication of the course structure;
- maintenance of the class process.

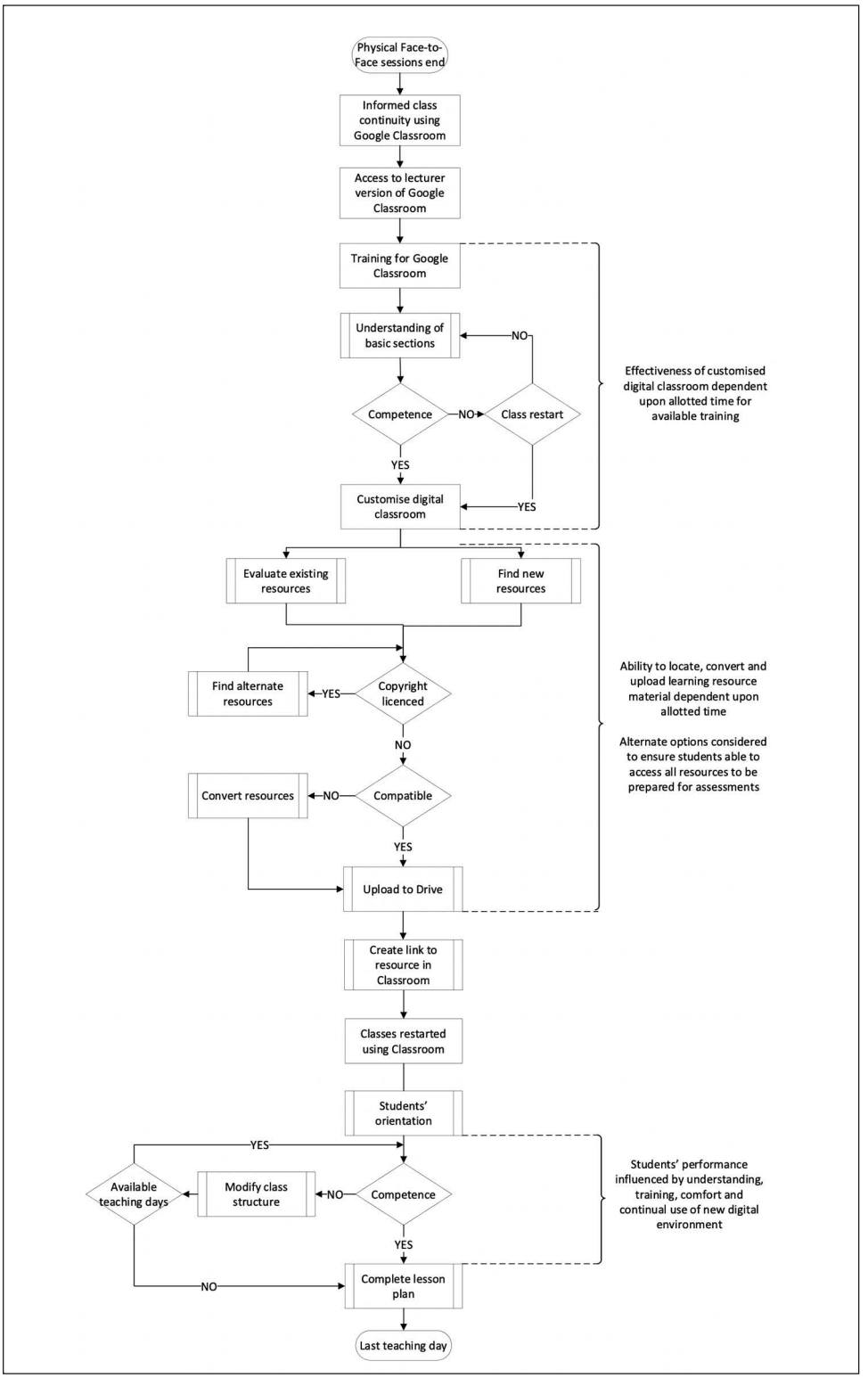

Figure 1. Process flow chart of the transition to digital classroom

Digital Twinning of the Physical Environment

This involves the duplication of the physical assets into the digital world to enable persons to "monitor, understand, and optimize the functions of all physical entities" (El Saddik 2018, 87). This process minimises disruption due to the change in the environment as each physical system contains with their operation, the exact digital twin with which persons will be familiar. A digital class should incorporate the following elements as they were used in the execution of the task:

- writing surface (white/blackboard) and writing materials (coloured markers and eraser) accessible to all participants;
- ability to see and hear each person (teacher and students);
- projector and screen to illustrate information simultaneously to a group;
- ICT equipment as computers, whose primary function is to transfer information to the projector;
- library reference materials that have been identified as course resource information as well as being essential for students' research.

Duplication of the Course Structure

This enables the original class structure to be maintained within the digital environment. It allows seamless continuity during the transition, as both teachers and students are accustomed to the pre-existing structure, modes of operation, and requirements of each activity, such as

- continuation of lesson plan;
- group project work (assessments, presentations and breakout activities);
- individual activities (assessments, in-class assistance and in-class activities);
- after-class assistance (office hours, communication via email or phone).

Maintenance of Class Process

The new digital environment enabled access to the class sessions from remote environments (as individual's homes, work, and vehicles via personal ICT equipment such as desktops, laptops, tablets and phones). However, it did not change the nature of the activity and as such should maintain the format in which the physical class was conducted, as

- scheduled start and end times;

- allowances for breaks (including bathroom);
- attendance records;
- minimising (or eliminating) internal and external distractions.

The ability to duplicate the functionality of each item determined the effectiveness of the transition to a different learning environment with minimal disruption or reduced time to restart the teaching process. However, this process is dependent upon the digital platform and available integrated applications. Creating the exact functional environment would achieve the benefit of minimal delays to continuation as well as adherence to a pre-established pattern of class activity that influenced student behaviour.

Digitalisation mapping

A review of mapping elements of a physical classroom onto the digital environment identified that many of the physical classroom requirements have a suitable digital equivalent through software systems. However, ICT equipment, class breaks, and minimising distractions do not have a direct digital twin.

ICT systems require hardware to physically connect to an existing network and access the internet. This is provided through a wired or wireless connection to an Internet Service Provider (ISP) that is typically enabled through a computer (fixed or mobile device). The minimum requirements are

- ISP connection through a wired or wireless medium;
- modem that converts the ISP signal;
- wired and/or wireless router (that is either built into the modem or as a separate unit);
- computer device (desktop, laptop, tablet, phone) that contains a network card to translate internet network protocols for use by web-based applications;
- input and output communication devices to enable bi-directional communication as
    - o camera (for video and photos)
    - o screen (visual display unit)
    - o microphone and speakers (for audio)
    - o keyboard, mouse, pen, touchscreen (for selecting options, writing text, drawing).

Due to the remote nature of digital classrooms, there is no continuous oversight and direct management by a teacher. Therefore, breaks and distractions are influenced and controlled by the end-user (i.e. the student and their immediate surroundings). Teachers are only able to monitor the content provided by the student's input devices as well as applications that share (e.g. screen share).

Therefore, a digital learning environment must be evaluated and designed based upon these limitations in order to maintain the same functionality as a physical classroom. However, there are critical classroom activities that involve interactions between the teacher and students, as

- teacher-class, in which the emphasis is on the teacher speaking about the topic to the entire class as a group;
- student-student, involving direct discussion between two students in situations as clarification and assistance of assignments or lessons;
- teacher-student interactions, satisfying the direct assistance activities that provide personalised evaluation of a student's assignment, clarification of lesson(s) and providing advice on a range of topics initiated by the student;
- display information activity, encompassing any visual presentation of information (including explanations) to the students from reference materials to course assignments;
- assessment incorporating various forms of examining the student's progress in the course;
- presentation specific to the group presentations that may be part of the assessment activity.

An analysis of the minimum resources needed to satisfy the implementation of these activities identified ICT equipment and connection to the internet as critical systems for a digital classroom. To achieve the main activities as teacher-class and teacher-student, additional systems required were meeting software, microphone, speaker and access to email. Thus, both teachers and students would be able to exchange documents through email as well as engage in live audio lectures and discussions via the meeting software, microphone, and speakers.

Negative effects of digital classrooms

Although beneficial in enabling the continuity of activities, the use of digital technologies has the ability to create disastrous effects. The digital realm creates

privacy issues regarding unauthorised recording of video and/or photos and/or audio during a live class session. Confidential information captured could be accidentally or deliberately exploited by the user and/or third parties that acquired access. For example, the subject's image and/or signature may be copied and used in negative contexts. The systems that enable this function are the web camera, microphone, screen share, and remote desktop.

Increased stress can occur due to the high frequency of messages received via email and phone (including phone calls, text messaging, and chat applications) as students are able to engage in 24/7 communication with teachers (as compared to the limited time interaction of physical classes and school environment). There is an expectation that responses should be immediate since no protocol has been developed to guide the behaviour regarding the platform.

In addition to the psychological stressors (as noted above), individuals experience physiological changes due to the length of time spent operating input devices. Prolonged stationary positions affect the musculo-skeletal system. Repetitive movement can lead to repetitive strain injuries in the wrist and fingers. Effects on the eyes such as "eyestrain, visual discomfort, and visual fatigue" (Matula 1981, 581) are linked to continuous use of visual display units (screens of computers, tablets, phones, and televisions).

Integration of apps

Integrating minimum required apps (attendance registers, countdown clocks, digital well-being tools, and privacy tools) automatically into the Google Classroom platform would provide the additional features for an effective digital transition. The automatic provisioning of applications can solve attendance discrepancies; issue reminders to take breaks and change tasks; reduce the negative physical and emotional effects of consistent usage of digital devices; easily incorporate drawings; visually demonstrate concepts on built-in whiteboards; as well as maintain privacy. The last feature is required to prevent unauthorised access to each person's system as well as to prevent the unauthorised ability to share or alter information (video, images, audio) of participants.

System flaws

A review of integrated features is summarised in the following paragraphs. This identified systemic operational design flaws that limit their effective use.

The ability to disconnect all participants at the end of a session was not provided as a visible option that could be enabled (or disabled). The only way to test the presence of the feature was to deliberately end a session prematurely and then try to reconnect to observe the students' status. Thus, this was not tested and its automatic integration could not be verified.

The originality report only worked when the assignment was uploaded using Google Docs. It did not check attachments submitted.

Specific features, as the camera blur (Pradhan 2020), were only operational using the Google Chrome browser. There is freedom of choice in the selection of alternate browsers, based upon personal preferences that included security (Kelly 2020), that affect the access to certain features.

The Jamboard whiteboard feature was not activated as part of the institution's package although it was accessible via a personal Google account as a separate application as well as an embedded link in the Meet application. However, this change appeared in April 2021 as part of the built-in options. This feature update (as well as others) was identified as planned additions to the Google Meet and Classroom ecosystem (Yeskel 2020).

Although video recordings were integrated, their initial functionality was poor due to the record button's unavailability during some sessions. In addition, the videos were not automatically uploaded to students' Google Drive accounts for immediate access. The latter was solved through the use of a video request form that was emailed only to students who requested access to the videos. However, sessions that were not recorded had no data for students to access.

Online education is dependent upon web-based applications. Failures in these systems affect access to learning material and resources. A review of the available information on the G Suite Status Dashboard (Google n.d.) from 19 August to 17 October revealed that Classroom experienced no interruptions, whereas Meet experienced outages in August and September (20 August – 2 a.m. to 6 a.m.; 24 September – 9:30 p.m. to 10 p.m.).

G Suite applications

Google provided access to a range of their developed applications as Classroom, Meet, Jamboard and Drawings. This provided an inherent level of trust in the functionality, security, and compatibility with various G Suite programs. They also provided access to a growing suite of third party programs (Google n.d.). The fundamental difference between the two is security.

There are many applications that can be integrated to work with Google Classroom through the configuration of an API (application programming interface) (Google n.d.; Google Developers n.d.) that is used to create a functional educational platform, as in an automatic attendance tracker (Google Developers 2020). However, the easiest approach is the ability to enable pre-selected Google applications.

Google Classroom platform

This section provided a practical overview of the Google Classroom environment from the first interaction to a class structure.

A valid Gmail address or an educational institution email, which is linked to the Google Classroom, is required to gain access to the platform in order to join or create a class. Thus, access to the platform without an educational email address required confirmation that the classroom created will not be used at a school or university with students. This warning highlighted that the availability of integrated services was dependent upon the institution and their G Suite for Education account. This warning only appeared when accessing the system with a personal Gmail account.

The main page of the newly formed classroom contained the basic class information (class name, class name – Section, Class code as well as the Google Meet link, if provided by the IT Administration) and a summary of activities or direct messages via the "Stream" tab. The benefit is in providing easy access to the course and being aware of the most recent changes to the content.

The "People" tab provided a list of teachers and invited students (and their status of joining the class). Emails can be directly sent via this portal to either individuals or a group. The "Marks" (or "Grades" for the institutional account) tab summarised all the assignments issued to the class and included the due date, class average, submitted (on-time or late) and outstanding, as well as any marks allocated. A student or assignment can be selected to focus on a specific aspect. The "Classwork" page is either blank (for personal accounts) or pre-populated (by either the school's IT Administration and/or Distance Learning Co-ordinator). However, in each case the same options for "Create" were available. These functions enabled customisation of the classroom environment (as referenced in figure 1). The basic layout options were Assignment, Quiz assignment, Question, and Material. Flexibility to create a new resource (document, presentation, spreadsheet, diagram or form) is provided using the built-in Google Docs applications

or via a link to a pre-existing source. The number of resources as well as types of options is limited by the storage size of the Google Account.

The ability to organise the "Classwork" page by activity, date or information type enhanced the customisation of the classroom experience. These "Topics" provided a structured approach to teaching and learning, as related material can be grouped into a specific section as well as hidden from the students and only made visible based upon the teacher's preference.

The initial desire is to duplicate the exact structure of the physical class, in terms of the weekly lessons and their associated materials and activities.

Google Meet is the meeting software application that enables the direct interaction between the teacher and the class. A direct meet link may be provided by the institution, however it can also be created through the Calendar application by creating a link as a resource using any of the previous methods or directly in the Calendar via the "Join with Google Meet" button.

Google Meet may be embedded with specific features dependent upon the type of account. At a minimum it enabled bi-directional interaction (i.e. both teacher and students can communicate simultaneously) via audio (with the use of ICT equipment), via video (if enabled as there may be privacy concerns), via text messaging (through the chat feature), as well as via an integrated Jamboard (Google's version of a virtual whiteboard). The option for recording the meeting enabled viewing on demand. Additional host controls allowed the teacher to control the students' microphones and ability to share their screens as well as chat. However, these must be enabled by the institution.

Suggested Best Practice

Digital transformation from a physical classroom, using Google Classroom as the LMS, should involve an iterative process (as illustrated in figure 1), in which both teachers and students clearly identify the key objectives for both the learning requirements (of the specific course) and the modes of teaching and learning. The following summarised the minimum suggestions for best practices, based on lessons learnt during the case study.

In order to mitigate problems of development, implementation, and effective use of the final solution, it is important that all key stakeholders (teachers, students, and ICT support personnel) are involved in each phase to provide input and guide the process.

The following thematic areas of focus are applied to each phase:

- digital well-being;
- access to online platform;
- transitioning form physical to digital (online).

Phase 1: Identify the type of digital classroom to be developed, taking into consideration

- digital twinning of the physical environment;
- duplication of the course structure;
- maintenance of class process.

Phase 2: Evaluate the need for each of the digital education transition factors below.

- Google Classroom access
- reliable Internet connectivity
- video conferencing hardware
- group project assessment
- automatic access to class videos
- final exam assessment
- plagiarism alert for final exam
- prior training for platform
- accessing copyrighted material
- Google Meet attendance records
- using one platform
- mid-term assessment
- practice assignments with feedback
- digital well-being
- privacy
- live class sessions

Phase 3: Iterate customisation of available digital classroom elements, including

- matching learning objectives, learning styles and teaching requirements
- creating a functional environment via the minimum digital resources for key activities of teacher-class interactions
    - ICT
    - internet
    - meeting software

  - microphone
  - speaker
  - email

- developing a functional environment via the required integration of apps
  - attendance
  - countdown clock
  - digital well-being
  - drawing
  - whiteboard
  - privacy

- Evaluate the effectiveness of customised solution(s) (as illustrated in table 1)

Table 1. Summary of iterative functions from the transition to digital classroom process

Teachers	Students
Competence in creating Classroom elements	Competence in using Classroom platform
Develop (or identify) suitable learning resource materials for online use	Measured KPIs of understanding, training, comfort and continual use of online platform

Suitability for STEAM Courses

The importance of evaluating the applicability to STEAM (Science, Technology, Engineering, Arts and Mathematics) is due to its being a "new transdisciplinary and interdisciplinary field that emerges in pedagogics" (Liritzis 2018, 73). The author highlights the benefits using STEAM in education as a "holistic approach in classroom" and "removes limitations and replaces them with wonder, critique, inquiry, and innovation" (73).

As identified in the previous section, the customised platform is developed through an iterative consultative process with teachers, students, and ICT support personnel. One of these key steps is the determination of the type of classroom to be created, including whether the course structure is to be duplicated.

Table 2 compares the basic teaching and learning requirements of STEAM courses with the traditional method (physical classroom environments using minimal resources as a whiteboard, projector, textbooks, and desktop computers) and the Google Classroom suggested best practice elements.

Table 2. Google Classroom suitability assessment of STEAM teaching and learning requirements

Teaching and Learning Requirements	Traditional Method	Google Classroom
Visualisation of text, videos and graphics that outline and explain key concepts of subject material	✓	✓
Creation of artistic expressions by manipulating physical objects (e.g. sculpture, modelling, dance, music, performance, crafts)	✓	×
Development of complex technical and artistic drawings using various media (e.g. including 3D)	✓	×
Writing complex mathematical, scientific and engineering equations	✓	✓
Teacher's demonstration of experiments	✓	×
Student's physical manipulation of tools in supervised experiments	✓	×

As illustrated above, Google Classroom is limited in adequately providing an interactive virtual medium for courses in STEAM. However, there is a strong focus to use XR (extended reality) mechanisms as VR (virtual reality), AR (augmented reality) and MR (mixed reality) in the educational environment (Yang, Zhou, and Radu 2020) as well as to include haptic feedback technologies that connect the virtual to the physical (Hamza-Lup and Adams 2008; Kreimeier et al. 2019). Although there is no current integrated XR application for Google Classroom, Google has provided access to virtualised educational environments as their Arts and Culture application (Google n.d.) and the ability to create virtual environments with tools as Tilt Brush (Google n.d.; Ho, Sun, and Tsai 2019), Tour Creator (Google n.d.) and Blocks (Google n.d.). As these options are part of the Google ecosystem, their integration into Google Classroom may be in the future. The immediate alternative is to use the screen share function in the meeting software to engage with the students.

Conclusion

The digital environment enabled continuity of essential educational functions that are performed in a physical classroom as teacher-class and student-student interactions with the use of ICT equipment, an internet connection and suitable applications (Google's Classroom and Meet).

The continuous feedback from the fifteen students, as they each experienced the forced rapid movement from physical classes to virtual classes, provided essential information about the "expectations and habits of Caribbean users of digital technologies" (Rameshwar 2020, 29). This number of students was not enough for a quantitative evaluation and this methodology was outside the scope of the paper.

However, their transition from a purely physical environment highlighted that it is not an easy nor straightforward process. This required an understanding of the limitations of the available digital resources as well as a strategy to modify the existing pedagogical structure, which included sufficient time for both educators and learners to accept, adjust, and adapt in an iterative cycle that created a customised learning environment to achieve the overall objectives of the lesson plan.

Google Classroom is a popular learning management system (LMS) that provided basic functionality in their free and corporate accounts. Educational institutions have the flexibility to add specific features that enhance the learning portal to make specific features easily available for both users (teachers and students). However, this is limited by the IT administrators' understanding and determining the tools needed for effective and efficient online interactions. Thus, as part of the change to digital, both teachers and students need to be included within the process as the system is configured to satisfy specific demands of individualised classes.

This changed the education paradigm as it moves closer to the concept of "education for one", in which each student's needs can be directly addressed using technology.

The concerns regarding privacy and digital well-being should not be overlooked as their effects will become increasingly pervasive due to the continual use of technology. The development of the curriculum must take this into account and create a shift from simply providing an online presence through which information can be exchanged.

Although blended learning environments existed for years and had been implemented in various institutions, the physical restrictions of COVID-19 created a necessity to move quickly and fully into the digital space and thus highlighted key problems within the transition.

Future transitions would benefit from a comprehensive policy that guides this activity. These developmental elements of a digital transformation policy structure are illustrated in figure 2, and are based upon the lessons learnt during

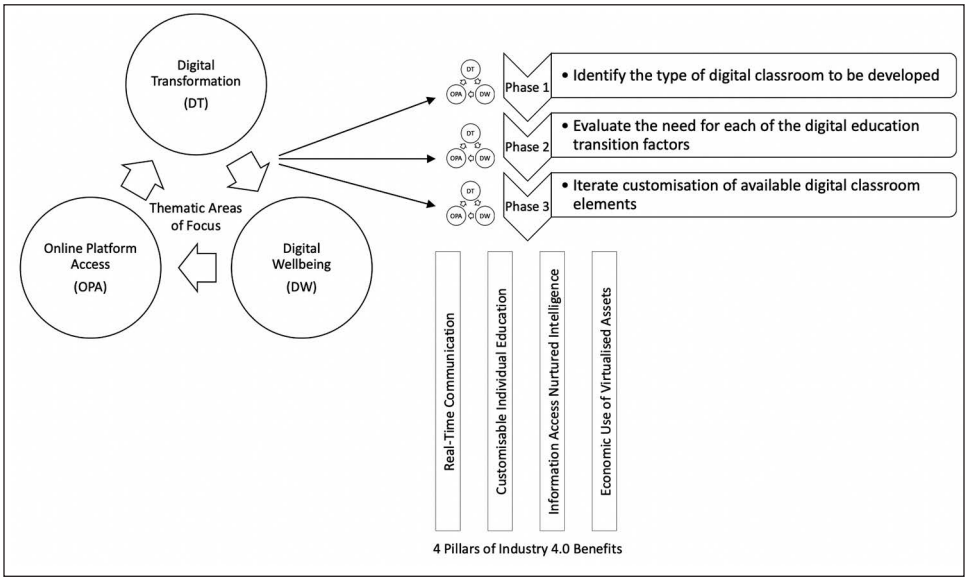

Figure 2. Developmental elements of a digital transformation policy structure

the transformation. This should create an educational revolution that achieves many of the benefits of Industry 4.0 as real-time communication between teacher and student; individual attention as well as customised lesson plans and learning outcomes; access to multiple sources of information to develop strategic, innovative, sustainable and critical thinking that develop intelligence; and economical use of assets via the Cloud platform.

These benefits would be facilitated by a three-phased process. Each stage would adopt the thematic areas of digital well-being; access to online platform; and digitalisation mapping of the physical world's resources to find equivalent/suitable applications in the digital world.

However, STEAM courses learning objectives require interactivity between the digital and physical realms (figure 3). This can be realised using a combination of XR and haptic technologies. This process enables forces, vibrations and motion to translate the digital information from virtual, augmented and mixed reality systems to the user.

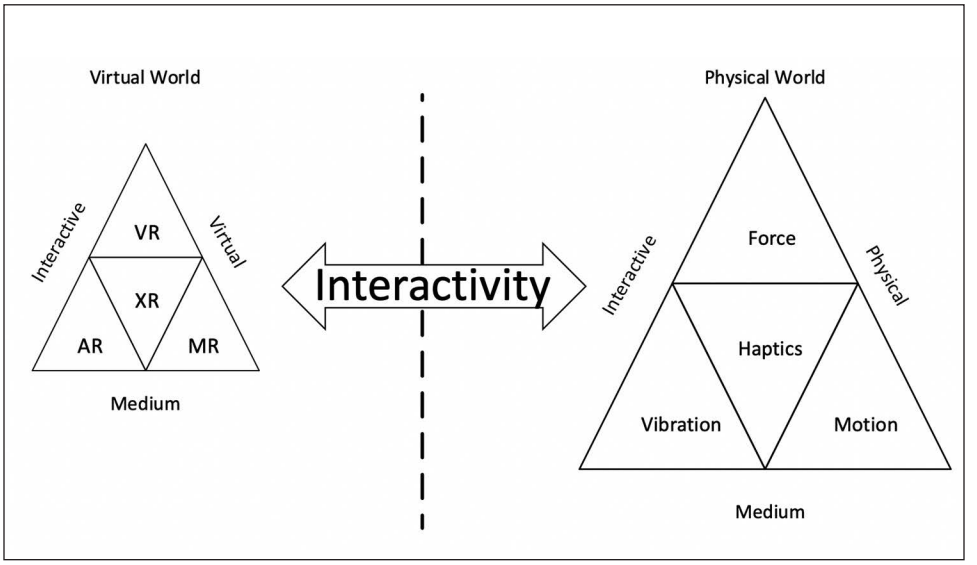

Figure 3. XR + Haptics provide interactivity

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A Whole New World

Educators Transitioning to a New Paradigm – An Evaluative Case Study

NADINE KARIL BARNETT

Abstract

The onset of the COVID-19 pandemic catapulted educators at the University of the West Indies (The UWI) into a world of virtual spaces and platforms. As a result, educators needed to acquire competence in the virtual classroom in a relatively short period of time. Consequently, training for the educator henceforth will have to include the acquisition of Virtual Classroom Educator Competence (VCEC). This paper shows the levels of VCEC at which four educators began and how, through experience, they attained higher levels of VCEC by the end of the semester. It documents their perceptions as they taught one course in a section of a department in the Faculty of Humanities and Education at The UWI, Mona and how they transitioned to teaching online through collaboration, problem-solving, and individualised training. It highlights challenges, solutions, and lessons learnt in the virtual classroom during that first semester of transition.

Keywords: Virtual classroom; teaching online; BlackBoard Collaborate

The onset of the COVID-19 pandemic has forever changed the face of teaching in this 21st century. For academic institutions, it necessitated a compulsory and rapid shift to teaching online in compliance with governmental stipulations in order to control the spread of the Coronavirus. This shift catapulted educators at all levels into a world of virtual spaces and online platforms, which, unknown

to some, was available long before the arrival of the pandemic. This necessary and sudden shift to the virtual classroom can be compared to the coming of a natural phenomenon for which one is caught unawares, with very little time to prepare for transition into a whole new world or be left behind.

An Evaluative Case Study

According to Bassey (1999, 28), evaluative case studies examine a single case or collection of cases to provide information to educational interests and decision makers such as administrators, teachers, etc. In this evaluative case study, a survey was designed to establish the perceptions of four educators with respect to some aspects of their individual and collective experiences teaching the same course, as well as measures that helped them to cope. This paper also highlights the terminologies and issues that emerged as the educators started the process of transition to the virtual classroom. The educators taught the seminar component of a foreign language course in the second semester of 2019/2020, in the Faculty of Humanities and Education at The University of the West Indies (The UWI), Mona, to eighty undergraduate students. The course comprises three components; four seminar hours, one hour of listening comprehension, and one tutorial/conversation hour. A course co-ordinator has responsibility for oversight of the course.

Additional Skills for Teaching

In addition to traditional teaching skills, teaching online requires a particular set of skills not previously acquired or extensively needed or utilised by some educators. The management of The UWI moved quickly to put the university on lockdown and make provisions through its technology management unit, the Mona Information Technology Service (MITS), to prepare educators en masse through a series of training sessions. These sessions were designed to train academic staff in the use of synchronous technology (Bates 2019, 386) via the university's choice of virtual platform, BlackBoard Collaborate (BBC), in order to facilitate classes online.

Nomenclature: Online Teaching vs Teaching Online

During the educators' period of transition to the virtual classroom, some referred to the new normal as "online teaching" while others called it "teaching online".

Although this could be regarded as a simple case of nomenclature, a clarification of this terminology puts into perspective what took place in the virtual classroom. I posit that what educators engaged in during this period of classes via the online mode should be referred to as "teaching online". This is suggested because educators had to move their classroom to an online platform so that they could continue teaching courses which were originally designed for face-to-face (F2F) engagement. Online teaching, on the other hand, entails courses and programmes specifically designed to be taught in a virtual classroom. In the case of educators at The UWI, during the month of preparation to transition to teaching online, not only did they have to learn how to utilise the university's virtual platform, BlackBoard Collaborate (BBC), but they had to take those F2F courses and finish teaching them on BBC and in some cases, via Zoom. One advantage that these educators have over those who will teach online in subsequent semesters is that they had met their students F2F at the beginning of the semester before the transition to teaching online. An established rapport already existed between educators and students and this played a role in a relatively smooth period of transition to the unfamiliarity and imperative of the virtual classroom.

Virtual Classroom Educator Competence (VCEC)

A good educator's knowledge and experience are still needed and useful for teaching in the virtual classroom. However, while traditional teaching skills can be transferred to the virtual classroom, Huggett (2017) underscores three key differences between the two types of facilitation. First, the use of technology to connect to the virtual classroom requires certain knowledge and expertise. Second, the manner in which the facilitator connects with students requires a distinctive set of interactive techniques. Third, a new set of facilitation skills unique to the online setting is required for virtual delivery. It soon became clear that in order to succeed, or at the least, to have some measure of relevance in this new paradigm, one had to acquire a certain level of competence in the virtual classroom. Huggett (2017) is accredited with reference to the Virtual Classroom *Facilitator*, who will be referred to in this paper as a Virtual Classroom *Educator* as a matter of choice due to the specificity of the type of virtual event.

From the very outset, based on the informal reactions of some educators, it was apparent that this Virtual Classroom Educator Competence (VCEC) comprised varying levels. The proposed levels, developed for this case study for the purposes

of evaluating educators' VCEC, are Basic, Low Intermediate, High Intermediate, Advanced, and Superior levels. The levels are described as shown in table 1.

Based on the description of the levels of VCEC mentioned before, educators can assess their digital fluency and work towards elevating their level of VCEC. A questionnaire was distributed to the four aforementioned educators. They were asked to state the level at which they believed they were before BBC training en masse began. One educator (EdA), stated that she was Low Intermediate, while the others (EdB/EdC and EdD), indicated that they were High Intermediate. However, based on the dictates of the VCEC table, at the end of the semester, there was a change in their VCEC status which was acquired through experience and what they learnt while they taught. They indicated that the Low Intermediate level became High Intermediate while the High Intermediate attained Advanced level status. This confirms the notion that the onset of the pandemic has created a situation where educators have had to adapt quickly, on the job, in a constantly changing environment.

Table 1. Levels of Virtual Classroom Educator Competence (VCEC)

Virtual Classroom Educator Competence (VCEC)	
Levels	**Description**
Basic	Possesses general computer skills. Knows what a virtual platform is. Knows where to find the virtual classroom.
Low Intermediate	Possesses general computer skills. Knows what a virtual platform is. Knows where to find the virtual classroom. Knows of the existence of the names of at least two virtual platforms.
High Intermediate	Possesses general computer skills. Knows what a virtual platform is. Knows where to find the virtual classroom. Able to create a classroom session within the virtual platform (BBC). Familiar with the jargon of some online platforms. Able to utilise some of the different functions of an Online platform. Possesses a fair level of digital literacy.
Advanced	Familiar with the jargon of online platforms. Able to create a classroom session within the virtual platform (BBC). Able to utilise almost all the different functions of an online platform. Knows how to manipulate a variety of virtual platforms with little assistance. Possesses a high level of digital literacy.
Superior	Familiar with the jargon of online platforms. Able to create a classroom session within the virtual platform. Able to utilise all the different functions of an online platform. Knows how to manipulate a variety of virtual platforms without assistance. Possesses a superior level of digital literacy.

In the Beginning

Only one educator (EdC) was aware, before the period of transition to the virtual classroom, that BBC even existed. When asked to state how they felt when they first learnt they would need to do BBC online training, two educators (EdA and EdB) used the word 'excited' in their comments as the anticipation of learning something new in the ambit of teaching was appealing. The others claimed that they were not daunted by the new developments. The comments of the latter two are understandable since they admitted to having taught classes online before on other platforms. Their training then involved learning the peculiarities of The UWI's virtual platform. EdC stated: "I was not too perturbed or anxious. Actually felt happy about the decision. I had done online teaching before so I knew I wouldn't have an issue delivering classes, but my concern was how receptive the students would be."

Not only was this going to be a new experience for educators but for their students as well who would be looking to them for guidance and reassurance. For this reason, one had to be prepared at least at the Low Intermediate level of VCEC to be able to teach classes online with relative success. Obviously, educators who had already been exposed to teaching in the virtual classroom had an advantage over those who were facing the prospect for the first time.

Collaboration

The educators claimed that BBC training helped to an extent but it was not totally adequate to prepare them to use the platform. Nevertheless, although they maintained that they would have needed more training to use BBC, they stated that collaboration with colleagues through online practice was what helped to prepare them to use the BBC platform with relative confidence by the time classes resumed. The course co-ordinator invited the educators to several meetings to practise and to try new discoveries on the use of BBC. EdA asked the co-ordinator for individualised training on the use of BBC. The co-ordinator had learnt enough to be able to instruct the group in the creation of sessions for classes. Nonetheless, she herself was new to BBC so the entire group collaborated and helped each other to manoeuvre the platform. The statements that follow show how the educators felt about collaboration with colleagues:

> EdA: What really helped me was the daily practice I had with colleagues, repetition and learning from my mistakes.
>
> EdB: I believe that my knowledge and use of other platforms enabled me to manoeuvre BBC. I think that brainstorming and collaboration with colleagues also helped.
>
> EdC: The training I did with other members of my Department was more helpful to me since it was a smaller setting, and I was able to teach myself a few things about how to use the platform in my own free time.
>
> EdD: The hands-on time we got to practise with other colleagues and on our own. Application of what was done in the training was necessary with the guidance of persons helping each other to survive and adapt.

It is interesting that in the last comment mentioned, the educator used the word "survive", because that is how she perceived the transition period while she was thrust into a new world to which she was not accustomed and having to adapt. In describing what they liked and appreciated about teaching online compared to the F2F modality, educators cited students' attendance to classes in spite of connectivity challenges. One spoke of the flexibility in the delivery of material, while the others spoke of the idea of working from home. They appreciated, "the safety of not having to interact physically with students and staff in the midst of a pandemic", "the convenience of working from anywhere" and "not having to fight with traffic".

Engagement in Teaching Online

EdB, in asserting what she appreciated about teaching online, stated: "I like the fact that it provides an opportunity to include a multiplicity of teaching aids and that it challenges me as an instructor to find ways to engage students. It is a continuous, constantly evolving process."

The challenges of getting students to participate have intensified during remote learning (Minero 2020). Engagement of students is critical to a successful and meaningful teaching and learning process whether online or F2F, since students can become distracted based on what is happening in their environment and their everyday lives. Pandolpho (2020) suggests that in order to engage students, one major strategy should be the establishment of a weekly routine. This creates

order and students come to understand what is expected. In a sub-section entitled "Get to know your students", Pandolpho suggests that more than before it has probably never been as important to get to know one's students and perhaps never has it been more difficult to do so.

Bearing in mind the fact that the skills and abilities of a proficient educator are still needed for the online modality, one has to agree that the need for such skills and abilities is even now more pronounced. Educators have been trained to know their subject matter but engaging students online entails the technological, psychological, and even emotional aspects to the teaching/learning process for all involved. Students can perceive an educator's regard through what is spoken, how they are addressed, and through follow-up actions in and out of class time.

It is normally an innate characteristic for us as human beings to be social and sociable, therefore engagement from the very beginning of teaching online is essential to maintain students' interest and participation. In a Masters' course taught online during the summer term, a student noted in a survey I facilitated, that one thing she appreciated about the course during the period was the fact that the educator greeted each student in the class, calling each by name at the beginning of the class. This was a relatively small class so the educator was able to do this, unaware of what it meant to this student and probably, by extension, to the others. One may argue that this cannot be done for large classes. However, the educator who signs on a few minutes ahead of a scheduled class will be able to greet students as they enter the virtual classroom. Some of these students may have been having challenges and an educator's personal greeting makes a difference. Huggett (2020, 8) suggests the use of names at virtual events such as the virtual classroom in order to engage participants/students. Among her guidelines for the use of names, she suggests that facilitators/educators should

a) incorporate the actual names of students in stories and illustrations;
b) avoid putting persons on the spot or embarrassing them (which sometimes may not be easy to do in a virtual FL classroom);
c) call a person's name before asking a directed question and repeat the name then invite the person to respond; and
d) allow participants the opportunity to "pass" and not respond, or to have shared responsibility for answers. For example, say "Let's hear from both Jane and Maria. Would one of you be willing to go first?"

In order to engage students, educators may have to make some adjustments to

the very course manuals and course outlines that they used in the F2F mode. Some ideas come during the period of teaching as this is a whole new experience and one has to facilitate and court flexibility. To make the course suitable for teaching online, the course co-ordinator has had to adapt material for online-ready use by adding and recommending, more than before, online resources, that students can access at the click of a mouse.

Diversity in delivery is important in engaging students online. The use of videos, the chat feature available, the breakout rooms, audios, and presentations are some of the ways to keep students engaged. In one course taught this summer, one educator was invited in the second week of the course online and another towards the end, to share with students. The visiting educator would have been invited physically to an in-person class to speak with the students and teach some cultural concepts concerning his particular Spanish-speaking country. This idea was adapted to the online platform and was most appreciated. Another effective way to engage students online is through storytelling to teach or emphasise a point, a cultural concept, to create and help maintain interest and motivate students. This has been used in the F2F modality throughout my teaching experience and still proves effective in the virtual classroom. This strategy, especially if it is relevant to the topic, is valuable regardless of the particular discipline. Everyone likes a good story!

To Show or Not to Show: That is the Question

The educators found that students were reluctant to turn on their videos in the virtual classroom. One or two were willing at first. The educators, however, purposed to turn on their videos at least for the first class only or the first and second class of the first week. In one particular group, when asked if they appreciated the educator turning on her video, the students responded in the affirmative. They claimed that it felt as if the educator was talking to them personally as they could look directly at her, even while they were reluctant to turn their cameras on. Some students admitted that they were not camera-ready, were not yet fully awake or did not want to see themselves on camera nor did they want to be seen by others. These students had already been attending these classes before the onset of the pandemic, therefore the educators could associate names with faces. Fortunately for these students, there are no Mandatory Camera Policies (MCP) (Nicandro, Khandelwal, and Weitzman 2020) as in some parts of the USA.

Nicandro, Khandelwal, and Weitzman (2020) paint a scenario based on their own findings in their context where students do not want to turn their cameras on. They state that students may be in situations where

a) they are couch surfing;
b) they cannot close their room door;
c) their home environment is not appropriate;
d) their low-economic background could be exposed; or
e) they could be disturbing family and vice versa.

The situations mentioned are not far-fetched and sound similar to what students are facing at The UWI. As for the educators, for the most part, it is a new experience to be teaching while not being able to see the persons behind the screen. In one instance, an educator reported that once when she had her camera on, she suddenly heard a male voice where a female student's name was. The student apologised profusely as a member of her family who had come into the room was staring at her teacher. Scenarios such as these are why educators in some schools in the USA enforce MCP. One professor in a college that advocates and maintains MCP, asserts that, "seeing students' faces is more conducive to a teaching environment that fosters collaboration." Besides, he says he misses the students (Nicandro, Khandelwal, and Weitzman 2020). This professor represents educators who are attempting to hold on to any semblance of normalcy during the pandemic. Unfortunately, suffice it to say, we are not in a normal period. Educators cannot force their students to turn on their cameras, they can only make an appeal. During the rest of that first semester, educators and their students mostly kept their cameras off.

Teacher Training and Preparation

It is clear that teacher training and preparation from now on will have to adapt to the demands of this new paradigm and include some form of VCEC. The educators concur that this is the way forward and the only way to be a successful educator in this new paradigm. This type of training should be ongoing because as educators progress in their knowledge of the use of technology in the classroom new challenges emerge and new applications, websites, and virtual tools become available. Whether or not there is a return to the F2F modality, many academic institutions have seen positive aspects in the delivery of classes online

and will want to continue it to some extent, or at least adapt a blended mode. They would have seen the benefits of teaching online in terms of cost reduction and other organisational and logistical advantages. Furthermore, online delivery has benefits such as the use of technology which interests students and helps educators create lessons as they manipulate various platforms. Global pandemics may become more common in the next few decades (Rice 2020) and distance learning will become more important as seen through the onset of the effects of COVID-19. If The UWI intends to offer an all-inclusive tertiary experience on an international scale, all educators must have the required competencies to deliver effectively both online and offline. One educator asserts that if they had been equipped beforehand with the skills and knowledge to use BBC, there would have been a faster end to the second semester of 2019/2020. Tertiary institutions must therefore be prepared. Many were not, but educators still had to transition and cope in the new norm.

Teaching Online versus F2F

The educators' first experience teaching online was relatively short (six weeks) since the closure of F2F classes happened in the middle of the semester. When asked to compare their experience teaching online versus the F2F modality, they seemed to speak more in favour of the F2F modality. Their statements are as follows:

> EdA: Our experience online was really short — only six weeks therefore, I would say I prefer the face-to-face modality. The weak students had a hard time adjusting to this modality.
>
> EdB: F2F teaching is more personal, provides an environment for nurture; where the teacher can impact the student with love of the subject area. I believe it is more learner-friendly whereas online proffers independent learning.
>
> EdC: For language courses, face-to-face is ideal. Teaching can be done successfully online, and I have had some very good sessions up to this point. The recorded sessions feature is great when persons are not able to attend classes live, but Jamaica's infrastructure and the "digital divide" limits this possibility to a great extent. Smaller class groups in an online modality would probably be just as effective as larger groups in-person.
>
> EdD: With teaching face-to-face the students participate more and you can call on them more to participate because they are in the same space as their peers so

there is more pressure for them to produce and respond. When they are online they can hide behind their screens and choose more to not respond and some use connectivity issues as excuses to not participate.

Synchronous and Asynchronous Classes

This era of teaching online has given rise to the terms *synchronous* and *asynchronous* learning/classes. According to the Glossary of Education Reform, synchronous learning comprises learning that takes place at the same time and at the same place, via the same learning platform. Before this term even became commonplace, it was often referred to as distance-education or distance learning. Video-conferencing and other forms of interactive online learning are regarded as synchronous where students interface with their teachers in real time. This type of learning has been associated with tertiary institutions such as The UWI for many years through its Open Campus and a few courses at the other campuses at The UWI. However, in Jamaica and the world, in the ambit of education in institutions at every level, this type of learning has now become the principal vehicle for teaching and learning.

On the other hand, asynchronous learning entails teaching and learning online that occur at different times while students are at different locations. This is achieved through pre-recorded video lessons, assigned tasks placed on virtual boards, email and WhatsApp exchanges between educators and their students who can access these lessons at different times. Bates (2019, 403) prefers asynchronous learning because many students work and lead busy lives so this method is convenient for them. Asynchronous material can be accessed at any time. Second, he asserts that this method is much more convenient for him as an instructor. He concedes, however, that asynchronous instruction can be frustrating for some students if a problem arises and the educator is not present in real time to assist with the situation (Bates 2019, 403).

Educators found themselves having to contend with and understand these two previously unfamiliar terms. Having taught their classes in the F2F mode for weeks before the onset of the pandemic, the idea of asynchronous teaching was met with varying levels of misgivings by the aforementioned educators. In fact, they continued having synchronous classes for the rest of the semester as they felt they were not teaching if they employed the asynchronous method. Nevertheless, the classes on BBC platform were automatically recorded, therefore

students who had WiFi connectivity issues were able to return to the platform and listen to classes they had missed. They were not able to ask questions in real time but they would have been able to follow up with the next class.

Despite the misgivings, asynchronous classes have merit in the world of teaching and learning online. Makhlouf (2014) highlights the fact that asynchronous learning is an independent approach to learning which gives students maximum control over when and where they access the material. Some students will find this approach appealing as not all learners learn in the same manner and at the same pace. Since students can work at their own pace, to a great extent, they have more time to analyze and decipher the material. It is a more flexible method of learning which proves ideal for tight schedules (Makhlouf 2014).

Conversely, not all students have that intrinsic motivation to log on to the system and complete tasks when accorded this independence. In addition to this, the level of instant feedback is not the same as in a synchronous learning environment. If a point in a lesson is misunderstood, without timely correction and direction, this could lead to a problematic situation for a student in the course. In a section of his article entitled "Disadvantages", Makhlouf (2014) posits that asynchronous learning can also cause a "disconnect between the learners, the material and the other people involved – both instructor and other students". Having utilised mostly the synchronous method and tried a portion of the asynchronous, the conclusion to this matter, in my view, is to facilitate a blend of both methods to benefit the different types of learners since each method has its advantages.

Volume of Work

In reference to the volume of work since having transitioned to teaching online, the educators indicated that compared to the F2F period, there was an increase in the volume of work they had to do in terms of preparation and follow-up exercises. Their comments are as follows:

> EdA: Increased. It was necessary for me to keep in touch with students who had connectivity challenges or with those who had challenges learning online. Basically, this activity was done after the four hours of synchronous classes. Asynchronous classes were done very few times and only when the majority were having issues logging in. I felt compelled to be in touch with my students to check on their personal challenges online or technical issues.
>
> EdB**:** It increased because of the level of preparation. Not only was I required to be

> familiar with my teaching material but also the various platforms and technology to support the material. F2F they see you, hear your voice and pick up. Online they cannot do that. You had to find the best ways to get things across to them.
>
> EdC: It felt as if it increased in terms of maintaining contact with students, getting feedback and assessing them to make sure they were understanding in class. I also did a lot of individual assessment which is more difficult than when we are teaching face-to-face.
>
> EdD: Overwhelmingly increased. Demanded more time, flexibility and patience with students, the platform (disconnection issues with students and teacher) was an issue.

Working from home is not necessarily synonymous with working fewer hours or having a lighter work load. On the contrary, the work day has become longer. Meakin (2020) reports that according to data from virtual private network service provider NordVPN Teams, persons who have begun to work remotely due to the spread of the virus, have started to work a longer day — an additional three hours per day in the USA. This is compared to figures seen before 11 March – a 40% difference. NordVPN claims that in countries such as France, Spain, the UK, and Canada, many persons start work earlier than usual with the working day extended by an average of two hours (Meakin 2020). Based on their comments, the educators surveyed in this article can relate to this scenario.

Educators' Mental Health

The maintenance of one's mental health is critical in an educator's everyday functions. This is even more compounded with the advent of teaching online, especially for many educators who work from home. When asked to comment on their mental health and how they managed it, the educators stated as follows:

> EdA: Perfect. Not a problem whatsoever. I did a couple of courses online, talked to my family and friends in Jamaica and abroad, gardening, cooking, watching TV, I did what I normally do except, limiting whenever possible the number of outings. I follow the prevention protocols and I don't think much about COVID-19. I do not live in fear.
>
> EdB: I had to decide that at a certain point in the day that I would just stop. I had to make a conscious decision. I would also ensure that at some point if there was time in the day that I would do it, but if not, then I would do something at least once a week.

EdC: I watched TV from time to time and did some non-academic reading.

EdD: Mental health: Not well. I was juggling two different platforms; one in my fulltime job and the other part time and not being able to go out to socialise and de-stress.

Working from home blurs the separation of professional and home life and can affect one's mental health if life and environment are not managed properly. However, there are steps educators can take to safeguard themselves and balance both aspects of their lives. The following points are suggested by Gausepohl (2017) in his article on improving work-life balance when working from home:

- *Get dressed.*

  She stressed that it is helpful if one dresses, to a certain extent, as if one is going to work. This will put the educator in a certain frame of mind to treat with the task ahead.

- *Create and maintain a designated work area.*

  Gausepohl suggests that one should "commute" out of the bedroom into the work space. Others in the home should also respect this work space so that there are no interruptions and distractions. In addition to creating this work space one should equally ensure that there is or are spaces that are no-work zones.

- *Effectively communicate.*

  It is essential to connect with co-workers from time to time. Working from home can create a disconnect between co-workers and the place of work. Gausepohl even suggests that one should go into the workplace from time to time if this is possible.

- *Block out your time to focus on specific tasks.*

  It is important to allocate time for specific tasks and give one's attention to one task at a time regardless of what kind of task it is – whether home or work-related. One should set priorities and stick to them or one can find one's self being pulled in several directions, which can contribute to stress. This therefore means that it is imperative for the educator to have a plan for the day and follow the plan as far as possible.

- *Take breaks.*

  Gausepohl speaks of the importance of changing one's sedentary position and moving around every hour. It is important for educators to take breaks or they could find themselves working nonstop and even foregoing lunch time. One educator in her statement on mental health had said that she had to make a conscious decision to 'just stop'. This goes to show that even taking breaks or stopping the work took effort and will, because the work is there to be done.

- *Learn to turn off your business.*

  Even though it is important to be connected to those with whom one works, it is equally important to have a time limit as to when work ends. If one is available for several hours of the day beyond normal working hours then this could become everyone's expectation. It is important to set boundaries and respect the boundaries of other co-workers. During the initial stages of the transition period the challenge was that of turning off business as co-workers' needs and questions were legitimate and in some cases needed immediate attention. However, since that period, it is safe to say that there has been improvement in this area on my part and that of colleagues.

- *Make time to unwind.*

  Gausepohl recommends having a transition period between work and non-work hours where one takes the time to decompress. This could involve calling a friend, stepping outside for fresh air or relaxing in some other way or as McClintock (2020) suggests, the educator should be "unapologetic" about the time he/she takes to unwind and focus on him/herself.

These are solid pointers that can help educators to organise and maintain healthy stress levels to safeguard their mental well-being.

Challenges

The challenges of teaching and adapting to a whole new modality were compounded by students' internet connectivity issues and their personal management of the process. EdA noted that the same students who did not attend classes regularly in the F2F modality were the very ones who did not prepare for classes online and had internet connectivity issues. EdD reported the same situation.

In addition, she stated that getting some students to participate was very challenging. EdB said that she has found teaching online to be somewhat impersonal, especially in the teaching and learning of foreign languages. EdC highlighted Jamaica's poor internet infrastructure and service. She claims that BBC booted some students off the system at intervals. She pointed out that it was also more difficult to get feedback from students, especially in a discipline that requires a lot of student/teacher engagement and oral practice in order to achieve mastery in particular aspects of the course.

The greatest challenge

What can certainly be regarded as the greatest challenge for educators online is the area of assessment. Fortunately, regarding the course in question, a major assessment – a written component accounting for 30% of the final mark – had already been administered days before all classes were put on hold. The co-ordinator and educators had to contend with how the rest of the course was going to be assessed through the online platform where students had ready access to all kinds of tools at the click of a mouse. One educator commented that assessments need to be carefully structured because, since students have access to this assistance from sources online or otherwise to complete tasks, it is easy for the testing to not reflect their true potential in most cases. One can only imagine that students will always seek ways to take advantage of the fact that testing has to be conducted online. It has also been discovered that some browsers automatically ask students if they need the particular page to be translated to English while some computers are able to translate the material automatically. In such an instance the Department's technician was of great assistance in helping to safeguard aspects of the test and minimise this problem. In this particular case, the technician instructed the co-ordinator as to how she could enter the Reading Comprehension as an image so that the computer would recognise it as such and would therefore be unable to translate the passage. Educators have to find ways to be ahead of their students to safeguard, as far as possible, the integrity of assessments.

The three remaining aspects of the course to be tested comprised the oral, aural and written components. The oral component was the easiest of the three to facilitate since this assessment was done F2F, in real time in the virtual classroom. The aural component, in the form of a listening comprehension exercise,

was placed on the course board and students were able to access the test over several hours for a limited period such as 25–30 minutes. Before the aural test was administered, the students were given opportunities to practise past papers on the virtual platform in the proposed test design before the date of the actual test. This proved to be essential because it allowed the students to learn how to access and practise for the test in the format that they would be given. It also allowed the course co-ordinator to test the system and make certain determinations such as the suitable amount of time to be allotted for the test. In the semester that followed, the co-ordinator was reminded that regardless of how one makes an impeccable plan, sometimes technology fails. In a test in the semester that followed, thirty-three students were given an aural test online. All students attempted the test at different points over a period of two days. However, three students were unable to hear the video. As one student put it, "the file may have been incompatible with his device". These are students who normally engage in class activities so there was little doubt about their integrity. Issues such as these may arise, so educators have to be prepared to facilitate these students and resolve the issue. In such a circumstance, the educator has to be willing to create a supplemental test or to initially create two tests in preparation for such eventualities.

The co-ordinator divided the final assessment (written) into two parts, the first was a multiple choice grammar and vocabulary test where students had a specific time limit over a period of two days to do Part A of their assessment. The specific time limit was structured so that students had the opportunity to choose when, over a period of 18, 24 hours, etc. they wanted to do the test. Once they started the test they had to complete it in the time designated such as 25–30 minutes, etc. This availed them limited time in which to consult peers and use search engines online. Part B was a take-home essay where students had a period of two days to complete and upload their composition to the platform. The take-home essay was set in a manner that required the students to write personal information in conjunction with the theme, therefore it would have been difficult for students to find and download an essay from the internet. Unfortunately, in general, online assessments are of such a nature that some students will always attempt to find ways to outsmart the system. Therefore, educators have to be constantly searching for ways to be ahead of the students. Preparing the assessment aspect of teaching online involved much thought and planning, first by sections in the department, and then by co-ordinators in consultation with colleagues. Throughout the process, even though there was physical distancing, the necessity of colleagues working

together through online platforms, with each educator teaching the other something he/she learnt, facilitated camaraderie even behind the screen.

Conclusion

Educators, despite their age, training, and experience in the ambit of teaching, have been catapulted into a whole new world of virtual clouds behind a screen. They have had to adjust and realise that the process of transition to teaching online is an ongoing one which necessitates flexibility on their part. To survive and thrive they have had to be willing to adapt to constant changes which include ever-increasing applications and platforms in a world that in a relatively short period has forever changed and may never be exactly the same again. They have had to face challenges never before experienced and find ways to resolve them. Despite the challenges and the charting of unfamiliar territory, these educators successfully started the process of transitioning to settle in the virtual world through teamwork, patience, resilience, problem solving, and the acceptance that this new paradigm is the new normal.

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The Impact of Technology in Professionalising Translation Graduates

E-Learning Experiences in the MA in Translation

TAMARA DE INÉS ANTÓN

Abstract

Due to recent changes in the translation industry, our understanding of translator competence (Kiraly 2000) has evolved to feature more prominently the translator's ability to effectively use new technologies. Against this background and from the early 2000s, scholarship in the teaching of translation (Samson 2013; Gouadec 2003; Kiraly 2000) has highlighted the need to include information and communication technologies (ICT) and computer-assisted translation (CAT) tools as part of translation curricula.

At our institution, a decision was made to move the two foundational courses in the MA in Translation (French/Spanish) to online delivery, starting September 2019. This paper describes how course content and assessment were restructured to account for recent developments in the pedagogy of the discipline as well as the new virtual environment, and to highlight the training potential of CAT and online tools. Moreover, it assesses the researcher's e-teaching experiences with regard to the impact that emphasising translation technologies in a virtual environment had in the programme.

Keywords: translation technologies, online teaching, translation pedagogy, collaborative learning

Introduction to Translation Technologies

RECENT DEVELOPMENTS IN ONLINE TECHNOLOGIES HAVE NOT ONLY internationalised the translation industry, permitting stakeholders to operate from anywhere in the world, but also changed the practical conditions of translators' work in several ways. At its most basic, the internet itself has revolutionised translator-client communication by allowing professionals from all over the world to be in regular contact, and work to be sent and received electronically across national and cultural borders (Biau Gil and Pym 2006, 6). Moreover, electronic communication has made easier the coordination of various intermediaries (translators, terminologists, revisers) working simultaneously in one single large translation project. It has also enhanced communication and networking between language professionals, particularly through the use of specialised internet forums.

But electronic communication is far from the only way in which technology has changed the face of translation. Computer-assisted translation (CAT) tools such as translation memories (TM), electronic corpora and terminology databases have also become an essential part of the translation process in any professional setting. Translation memories are programmes that create databases of source-text and target-text segments in such a way that these paired segments can be reused (Biau Gil and Pym 2006, 9). This means that when using a TM, translators are not beginning the translation project from scratch but working from the information stored in the TM databases. The use of a TM can save time, increase productivity and minimise inconsistencies (particularly in larger or collective projects); and even though these programmes are user-friendly, one still needs to learn how to use them, which is why it is extremely important for TMs to be part of the academic curriculum in translation programmes.

Electronic corpora are "systematic, planned and structured collections of texts stored in an electronic database, and specifically compiled for linguistic analysis" (Neshkovska 2019, 63). Bernardini, Stewart, and Zanettin (2003) distinguish several types of corpora used for the purposes of translation, such as parallel corpora[1], comparable corpora[2] and translational corpora[3]. Parallel corpora in particular can resemble a TM, as the latter is also based on a database of source and target segments. When compared to printed texts, electronic corpora are easy to access and save translators a lot of time.

Like TM systems and electronic corpora, terminology databases and glossaries are also an important tool for professional translators and translation

students. These databases[4] can be prepared by terminologists or translators before or after they finalise the translation, and they must be "regularly updated and reviewed by a team of translators with the contribution of terminology experts to minimise erroneous translations" (Odacioglu and Kokturk 2015, 1092). And this is precisely why all these CAT tools have been extensively adopted by the translation industry – because they save translators time, increase productivity and ensure consistency.

In a study of North American job advertisements in translation and related language services, Bowker (2004) established that whilst knowledge of translation-specific technologies was only required in approximately 20 per cent of the ads, basic computer literacy was a key skill required by employers, appearing in 60.5 per cent of the ads. Moreover, Bowker (2004, 970) also noted the sharp increase in this percentage during the three-year timeline encompassing her study, which could lead us to argue that these percentages are likely to be much higher today, over a decade later.

Still, computer literacy and translation technologies have not always been given the necessary curricular space in translation education. According to Marshman and Bowker (2012), financial and time restrictions often make the teaching of translation technologies very difficult. This has led to some clear gaps in education and a certain dissatisfaction among employers of recent graduates of translator education programmes (Samson 2005, 104). And even though this is a problem that has been identified and explored at an international level, financial and resource constraints are perhaps even more difficult to overcome in a Caribbean academic context, making students' access to certain CAT tools almost impossible and its inclusion in our courses a challenge.

Technology and Translation Education

In the last two decades, translation pedagogy has evolved significantly with the development of the widely recognised "social constructivist approach" (Kiraly 2000). Kiraly's constructivist approach to translation education clearly distinguishes between translation and translator competence. Translation competence focuses mainly on the linguistic skills needed to produce an "adequate target text" (Kiraly 2000, 10), whilst translator competence encompasses a much wider set of skills, including the ability to understand and meet client expectations, and the ability to use various technologies efficiently (11). By focusing on the impor-

tance of translator competence, Kiraly encourages teachers to assign realistic and situated projects or tasks in which students become active learners by working and building knowledge together, instead of remaining passive recipients of a kind of knowledge seemingly divorced from real-world needs and applications.

This emphasis on active and collaborative learning resonates well with the tenets of translation technology education, as promoted by scholars such as Biau Gil (2006), Gouadec (2003) and Doherty (2016). Scholars such as Samson (2013) foreground a series of strategies for including technologies and optimising their use in the translation classroom. According to Marshman and Bowker (2012), they all recommend introducing basic technological tools early in the programme of studies, encouraging students to view these tools as an inherent part of their future professional life.

Beeby, Rodríguez Inéz, and Sanchez Guijón (2009), Biau Gil and Pym (2006) and Marshman and Bowker (2012) argue that these technological tools may be taught most effectively within courses with a clear focus on the translation task itself, so that learning to use them can be naturalised as part of the student's understanding of how to translate rather than becoming a separate task. If one agrees with the above, it becomes clear that the use and evaluation of these online technologies should not be limited to a single technology-focused course, as it is common practice in many universities, but embedded within the overall programme of studies.

It is here where one should take a moment to contextualise the literature presented above and note that most of these scholars work in translator training institutions with a two-cycle format (i.e. where degrees in translation are being offered at the undergraduate and graduate level). This is very common in the European context, where students in translation receive approximately five years of training. In such a scenario, a more comprehensive and in-depth teaching of translation technologies is expected, and as such these scholars focus not so much on whether or not to teach translation technologies, "but on the right sequencing of course contents and the overall teaching methodologies, proposing a number of project-based situated approaches that emphasise teamwork and an understanding of production processes in the translation industry" (Austermuehl 2013, 329). According to Austermuehl (2013) things do get much more complicated when working in an environment where a one-year or two-year postgraduate degree is the default setting for translator training, meaning that any teaching of technological tools to enhance the professionalisation of your graduates needs

to be balanced with laying a theoretical foundation for translational actions, and sometimes even language teaching. This is a situation found, for example, in a number of English-speaking countries, including Australia, New Zealand, or the United States (Austermuehl 2013, 329).

Technology in Our MA in Translation (Spanish/French)

This is also the situation in our university, where the MA in Translation (French/Spanish) is a part-time postgraduate programme lasting two years, and consisting of eight courses[5], the last one a research course in which students are asked to produce a 20,000 word research paper, in this case an extended translation (5,000 words translation and 15,000 commentary).

Since our MA in Translation (French/Spanish) does not include a single technology-focused course, I considered the need for creating a course on "Translation Technologies", when I was assigned the coordination of the programme in August 2018. A number of reasons led us to decide against this. First of all, the very time constraints imposed by a two-year part-time programme already made us question the extent to which the teaching of these tools and their impact on the translation process could be effective if delivered in a single course more or less divorced from the other translation practice and theory components of the programme. Second, the varying degrees of linguistic and translational competence of our students made us wonder whether such a tool/technology-oriented approach was the best use of our students' time. Our programme, as many other translator educator courses according to Marshman and Bowker (2012), is already densely packed, as it involves several specialised translation courses and three working languages (Spanish, French and English).

Third, the varying degrees of technological competence of our students was carefully considered. Biau Gil (2006) states that even students in European schools, born in a digital era and having grown up surrounded by computers, often arrive in translation degrees with very different attitudes and comfort levels with computers. I would argue that this is even more evident in our MA in Translation (French/Spanish) for two main reasons: (1) since this is a postgraduate degree the age of our students vary greatly, and generally older students report a lower level of comfort when it comes to computers; (2) the lack of consistent internet access and technological resources traditionally imposed by a Caribbean context can also mean our students might express a lower comfort with computers or

might not have the means to access and experience certain technological tools.

Finally, it is not only the students' but the institution's financial constraints and lack of resources that can make the teaching of translation technologies challenging. For example, buying the licenses for a translation management system such as SDL TRADOS Studio, which would open the door for students to use TMs among many other things and work collaboratively in a single project, is quite costly, even after the generous discount the company offers to educational entities. As such, we are still working to ensure funding to buy these licenses, a situation that was only complicated by the COVID-19 pandemic and that will hopefully be solved within the academic year 2020/2021.

With all the aforementioned constraints in mind, the best choice seemed to be to avoid creating a single technology-focused course (which would have required a stronger financial investment on the part of the institution and time investment on the part of the students) and instead modify for online delivery the two foundational courses in the MA in Translation (French/Spanish), courses which act as prerequisites for all the other courses. On the one hand, this was an administrative decision made to enable these two courses (Principles and Practices of Translation and General Translation) to be taught every year, and consequently students to apply to the programme without having to wait for the previous cohort to complete it, i.e. two years, as was the case up to September 2019. On the other hand, and most importantly to this paper, this was a pedagogical decision aimed to introduce our students to basic computer literacy and to ensure their familiarity with a virtual and technological environment from the earliest stages of their training in translation.

Move to Online Delivery and Consequent Modification of Content and Assessment

The introduction of computer literacy into the teaching and learning process has conferred special importance on virtual environments, but in many ways research in translation pedagogy has not sufficiently explored the possibilities of these virtual and technological tools. First of all, when considering the modification of any course for online delivery, one should always avoid a common pitfall, i.e. including technology into the classroom environment but not making its use a key part of the lecturer's methodology. According to Varela Salinas in 2007 the

"novelty" of Information and Communication Technology (ICT) "often led to its erroneous use" (Varela Salinas 2007, 2), for example, by simply offering traditional learning materials online, so that only the medium of delivery changes. I would argue that this is still a common error among many educators, even though online learning or the implementation of ICTs in the classroom may no longer be considered such a novelty. Consequently, a lot of effort went into the modification of the two courses discussed here, to allow for their online delivery in September of 2019, and to adapt all the material to its new environment in order to fully optimise the use of technologies and exploit all the potential advantages.

For example, in online teaching "users enjoy the benefits of being connected within an evolving and networked community" whilst at the same time being allowed to satisfy their own individualistic needs (Boisselle 2014, 2). In fact, online learning increases the opportunity to meet the needs of a variety of students, including returning and working students – as is the case of most of the students registered in the MA in Translation (French/Spanish) – who benefit from its time and place flexibility (Boisselle 2014, 2). In this context, learners become responsible for when and to a certain extent what they learn, as it is easier for them to control the learning process and produce results and data that are better tailored to their interests, i.e. they turn into active constructors of knowledge (Varela Salinas 2007, 2).

In its most basic form, learning to translate would mean acquiring the knowledge, skills, techniques and strategies that allow translators to effectively render a text in another language, but translation scholars are yet to agree on the exact catalogue of sub-competences or skills that should make up the toolkit of the professional translator. Still, one could argue that at the very least "knowledge about correct decoding of the source text and idiomatic encoding into the target text, comprehension of cultural features, research skills, but also the correct use of the tools for terminology management and computer-assisted translation, are necessary to guarantee quality in the final product" (Varela Salinas 2007, 3).

Within the context of this paper, a modification in the content and assessment of our two foundational courses to fit the new online mode of delivery was intended not only to introduce students to the core technological tools any professional translator should ideally master, but more importantly to the core skills they would need in dealing with translation in general and translation technology in particular. This paper endorses Austermuehl in that two such skills must be: (1) revision skills in the target language, (2) documentation and research skills

(Austermuehl 2013, 330); but it also adds two more: (3) communication skills, and (4) collaborative skills.

The case of "Principles and Practices of Translation"

Principles and Practices of Translation (TRAN6101) is, as described by its course outline, the first of two foundational courses in our MA in Translation (French/Spanish) and provides students with the knowledge and technological tools needed to interrogate the complexities of translation as a professional and academic practice. One should note here how the importance of technological tools is already highlighted in the rationale of the course. Moreover, and even though this is the most theory-focused course in the programme, as it requires students to examine traditional and contemporary translation theories, its description also establishes that students will gain practical experience in text analysis and translation research methods.

Furthermore, the content of the course is divided in four main units:

1. What is Translation Studies?
2. Main translation theories;
3. Text analysis and translation commentary; and
4. Translation in the 21st century.

Even though the very methodology of the course is designed to incorporate digital technologies and their importance throughout the semester, Unit 4 is perhaps the one that touches upon translation technologies most explicitly by covering issues such as machine translation, computer-assisted translation, audiovisual translation, and localisation.

When it comes to its online mode of delivery, the course presents itself in a mixture of asynchronous and synchronous teaching (*see* Appendix A). Synchronous learning environments provide real time interaction, which can be collaborative in nature. This is important since collaboration and teamwork have been established within this paper as key skills in the training of future translators. Still, in the context of our MA in Translation (French/Spanish), I argue that a heavy reliance on synchronous teaching would in fact act as detriment to the learning experience of our average student. Synchronous experiences call for the interactive presence of both lecturer and student, and in this course synchronous

work was mostly reserved to biweekly seminars and/or workshops in the form of videoconferencing sessions via Zoom.

Synchronous interaction requires a strong and stable internet connection that is not always readily available for everybody. Moreover, the average student in our programme is a working student, in many cases with a full-time job. For this type of student, the flexibility offered by asynchronous learning is ideal, since it means that they can manage their own time. The flexibility of asynchronous learning as understood in this course needs to be qualified, because the course is still scheduled to last 13 weeks and all assessments need to be submitted by a particular deadline and within a more or less limited timeframe. In brief, since the course is designed to combine asynchronous and synchronous teaching, students are expected to follow the overall course schedule and cover a certain amount of material within any particular week, or in the words of Pym, the course offers a form of "controlled asynchrony" (Pym 2011, 4).

To summarise, the course has been designed to combine a week of asynchronous work, where students are presented with a number of readings, videos and podcasts with a week of more synchronous teaching. Pedagogically speaking there are two things of note when it comes to the asynchronous materials[6]. On the one hand, the lecturer categorises materials as prescribed, highly recommended or recommended presenting students with what Pym terms as "variable workloads" (2011, 5). Since our students are very different, they will want to work at different paces, and the best solution here would seem to allow for a relatively high proportion of optional readings and tasks, especially those that involve web searches, with the minimal requirement that a certain number of them be done – those identified as prescribed materials or activities by the lecturer. This allows students to manage their own time, and to some extent tailor their learning experience to their own interests by exploring further those areas that are of particular interest to them, highlighting once again autonomy among student learners as one of the main advantages brought by online teaching (Boisselle 2014, 7). On the other, students are given the opportunity to learn from multimedia materials (written, audio, audiovisual, etc.). This permits users to not only manage their own reading order and/or learning sequences, but to "switch between different texts and materials that represent diverse information" and engage the student's cognitive process in different manners (Varela Salinas 2007, 3).

Moreover, in the synchronous Zoom sessions or workshops, the lecturer presents the students with a number of activities or case-studies where they can

put into practice what they have been learning about translation theory the week before. In brief, preliminary readings have made the student aware of a problem or difficulty, whilst the actual synchronous session presents ways of solving the problem, and a series of tasks and research outlets that will invite the student to investigate even further. These activities can be completed individually or in groups by using break-out rooms. In any case, students' will be engaging here their collaborative skills, because even if an activity was first to be completed individually, there will be a collective discussion and revision of the student's choices afterwards. These sessions are designed to be highly participative and interactive, and ensure community-building within the classroom, in order to avoid any sense of isolation, perceived lack of interaction or decline in motivation on the part of the student, both common dangers of e-learning (Pym 2011, 5). The creation of a learning community is very important here not only for its pedagogical virtues, but also because it can help students to develop networking skills and prepare them to be active members of similar virtual communities of professional translators. This is also highlighted by one of our forms of assessment in the course, i.e. Forum Discussions.

As seen in table 1, when modifying the course for online delivery, not only its teaching methodology and mode of delivery changed, but also the structure and nature of its assessment.

Table 1. Previous and modified assessment for "Principles and Practices of Translation"

Previous Course Assessment (F2F)	Modified Course Assessment (Online)
40% Coursework	**100% Coursework**
– 3,000 words Research Paper (25%)	– Forum Discussions (15%)
– Translation-Editing Project (15%)	– Seminar Presentation: Critical review of an article (20%)
60% Final Exam	
– Essay Question (30%)	– 3,000 words Research Paper (25%)
– Translation Commentary (30%)	– Translation Journal (40%)

This revised assessment aims to promote in our students a deeper understanding of the way in which translation theories can inform translation practice in the professional world, and takes advantage of both the new online environment and translation technologies to do so. First of all, a decision was made to keep

the research paper, but eliminate the final exam, which was not only too heavily weighted – 60% of the final grade – but also could only assess our students on their knowledge of translation theories in a more traditional and arguably superficial manner. Instead, students are now required to produce a translation journal, where they will have the opportunity to try out their understanding of the studied theories in two 300–350 word source texts. The focus will not be so much on the final product, i.e. the finished translation, as on the process. This would allow students to reflect upon their own process, try out different strategies, manipulate the texts in as many ways as possible informed by their understanding of the different translation theories, and discuss their experience.

As such, they will take one or two 300–350-word source texts and manipulate them in different ways to produce five different experiments. Each experiment/translation would be based on a particular question or theoretical framework, such as: What are the limits of domestication and foreignisation? Is translation a colonising tool or a way for the postcolonial subject to write back? How does one translate race? What does it mean to hijack a text from a feminist perspective? Can you queer a translation? How can you define equivalence within Skopos theory? What are the limits of machine translation, etc.? Each of their experiments/translations should be accompanied by its own translation brief and commentary.

Translation briefs or specification sheets are (or at least should be) a common feature in the work of professional translators. Translation commentaries contribute to the mastery of the art of translation by raising the student's awareness of the factors which affect translation, and even though they are not likely to produce translation commentaries in their professional life, this task is designed to hone the students' ability to articulate their choices. This is a skill that according to Sewell (2002) is highly valued among professional translators, since they are often called upon to defend their choices to reviewers or clients. In brief, the translation journal is an innovative form of assessment that this paper highly recommends to other educators in translation, as it encourages critical thinking as well as creativity on the part of our students (Johnston and Losensky 2017, 45).

Unlike translation journals, the use of online discussion forums has become a prevalent part of online teaching, facilitated by the increased use by educational institutions of virtual learning environments, in our case OurVLE (Mazzolini and Maddison 2007). Forum discussions are particularly useful to promote interaction and community-building without the constraints of synchronous videoconferencing sessions. In our course, each Forum Discussion remains open for two

weeks. First, students are asked a theory-based, ideally controversial question within Translation Studies. These questions change every year, except the one in Forum Discussion 1. Since most of the students starting our programme are very much new to translation theory, I like to begin the course and our forum by discussing the widely acknowledged divide between translation theory and practice within the discipline. In Forum Discussion 1, students are advised that with the emergence of Translation Studies as an independent field of studies, the number of training and academic programmes in Translation has increased, as well as the amount of scholarly work/theoretical writings underpinning the practice of translation. Still, maybe because this is an ancient activity but a fairly recent area of studies, a lot of professional translators have not received any specific academic training or simply do not see how the theoretical writings being produced by the "Ivory Tower" can help them in their everyday practice. Thus, the proposed question in Forum Discussion 1 is: "Many translators complain that much theoretical writing on translation is of no practical use to them. Is this a valid criticism, and if so, does it matter?" In order to answer the question, students are invited to read an excerpt from the book entitled *Can Theory Help Translators? A Dialogue between the Ivory Tower and the Wordface* (Chesterman and Wagner 2014), a book written as a form of dialogue between professional translator Emma Wagner and translation scholar Prof. Andrew Chesterman.

Students are required first to give their own answer to the question by not only sharing their opinion but supporting it with references to other scholarly sources and/or specific examples. Once their answer has been posted, they should then engage with other students. Their interaction should look like a conversation/debate. There is no limit to the number of posts, but a minimum of three posts and 750 words are required in each forum for the student's participation to be assessed.

In another example of controlled asynchrony, students have two weeks to participate in each of the five online Forum Discussions that will open throughout the semester. They are strongly advised by their lecturers to post at least once within the first week in order to give themselves the space and time to engage with others in week 2. This engagement is an important part of the assessment criteria underpinning Forum Discussions, and students are aware that a set of marks will be deducted if all or most of their posts are made at the end (within a 72-hour period of the deadline), because this kind of participation does not allow for their classmates' interaction with their work.

The questions to the Forum Discussions are specifically designed so there are no right or wrong answers, and students are left in charge of doing their own research and building knowledge as a community. Lecturers do post in these Forum Discussions to encourage participation by highlighting interesting aspects of a student's answer or asking follow-up questions, i.e. their role is rather that of a moderator (Mazzolini and Maddison 2007). Students receive their individual mark and feedback once the Forum Discussion has closed. Within an online environment, timely feedback is seen as a key element to ensure a successful teaching and learning experience, since the intention is to keep students' motivation from waning, and for students to build in competence and knowledge and apply this feedback in the next task.

The use of Forum Discussions as a form of assessment is meant to, on the one hand, ensure students read the materials provided to them in a timely manner; and most importantly on the other, to hone their communication, research, and collaborative skills. First of all, students have to engage in their own research to build their responses to the Forum Discussion, but they also work collaboratively in constructing knowledge and giving an overall response to the proposed question. Finally, as mentioned before, professional forum discussions for translators are one of the many ways in which technology has changed the face of the translation industry, and this kind of classroom discussions are meant as an early introduction of our students into that world.

To conclude, and perhaps of less interest to this particular paper is the students' critical review of an article. Students are expected to choose an area of research within the field of Translation Studies and a key scholarly article within that area. Students will present a critical review of that article in front of the classroom, in this case in a synchronous Zoom session. This form of assessment is particularly effective because it encourages students to work on their research and presentation skills, but also to collectively build knowledge within their learning community. Each student is given 20–25 minutes to present and five minutes for follow-up questions from their classmates. This assessment is designed to work in tandem with the research paper.

The idea is that this presentation will take place in week 7, and it will allow students to explore a particular area of study, receive feedback on their contribution, and come up with a clear research question, which they will then answer in the final Research Paper due in week 13. Although students are free to choose a topic for the critical review and research paper, this lecturer has seen a growing

interest in technologies and digital media within them. As such, last semester approximately 40 per cent of our students worked on areas of translation directly enhanced by digital technologies, such as audiovisual translation, news translation in an increasingly digital world, or the translation of memes.

The case of "General Translation"

General Translation (TRAN6102) is, as described by its course outline, the second of two foundational courses in the MA in Translation (French/Spanish). The course focuses on the translation of texts related to the fields of journalism, environment, sports, tourism, and literature. Students are required to become familiar with terminological research, and they are guided to develop a sensitivity to genre, register and the expectations of their target reader/client. Moreover, within the context of this paper, it seems important to highlight that the following can be found among the learning outcomes of this course:

1. Effectively post-edit or revise a target text;
2. Conduct advanced terminological research; and
3. Manage and create glossaries based on the material translated in each subject area.

Similar to TRAN6101, teaching methodology, content, and assessment were all modified for online delivery. Even though TRAN6102 also presents itself in a mixture of asynchronous and synchronous teaching (*see* Appendix B*)*, there was a heavier reliance on asynchronous teaching, and so our lecturers fostered interaction by ensuring frequent and timely feedback for each of the week's activities.

TRAN6102 consists of six units:

1. The Translation Process;
2. Environmental Texts in Translation;
3. Journalistic Translation;
4. The Translation of Tourism;
5. Sports Translation;
6. Introduction to Literary Translation.

Each unit lasts approximately two weeks, and as such from a pedagogical perspective, it is important to note that students will always complete formative activities in the first week and receive feedback before they have to submit their

assignment in the second week. In addition, even though translating in different topic areas, it is expected that students will apply what they have learnt about analysing a ST, complying with client's expectations and terminological research in previous assignments when completing the next one. In fact, we have clearly seen this happening with our students producing translations of increasing quality throughout the semester.

The structure and nature of the assessment in this course was modified as shown in table 2.

Table 2. Previous and modified assessment for "General Translation"

Previous Course Assessment (F2F)	Modified Course Assessment (Online)
40% Portfolio of Translations	**100% Coursework**
Translation of four (4) 500-word texts distributed at various stages in the semester, done in class and using paper dictionaries.	– Translation Portfolio (40%): The portfolio will consist of five translation assignments to be completed throughout the semester.
60% Final Exam	– Glossaries (20%)
Translation of two (2) passages on different topics and different languages (Spanish and French).	– Extended Translation Project (40%): The project will consist of approximately 1,250 words of literary translation and a 2,500-word commentary

As established in this paper, professional translators are currently expected to have a proficient use of CAT tools, databases, glossaries, virtual environments, etc. Unfortunately, this was not something students could demonstrate under exam conditions as prescribed by our university. As a lecturer of translation, the only things that I could assess under those conditions (i.e. access to paper dictionaries or no dictionaries at all) would be the students' understanding of their foreign languages (but advanced knowledge of Spanish and French is already a pre-requisite to our students' admission into the MA), very general translation skills, and perhaps most importantly, time-management. Time-management would still be assessed under the modified type of assessment, since some of the translations within the portfolio are timed, but other than that the decision was made to eliminate the final exam.

In addition to the elimination of the final exam, the structure of the translation

portfolio changed from a series of in-class tests to a series of virtual assignments. This is of particular interest to this paper because our students are now encouraged to access electronic dictionaries, databases, glossaries, translation forums, etc. in order to complete them, making these assignments feel like authentic translation projects. As established by Marshman and Bowker (2012), engaging students with both realistic translation tasks and technology in the classroom helps them to appreciate when and where these technological tools can be used.

That is why from Unit 1, students are invited to explore the different potential professional paths from which a graduate in translation could choose. For instance, and since recent developments of machine translation (MT) quality has led to growing use of the technology in many professional contexts, it is important for our students to know of this type of workflow, where a machine-translated text is used as a raw translation to be corrected or post-edited by a translator. As such, Assignment 1 is intended to hone our students' revision skills and test the limits of machine translation by completing a post-editing (PE) exercise. This paper argues that at least part of the skill set needed for post-editing is likely to be shared with more traditional human translation and the revision of human translated texts, such as source and target language proficiency, subject area knowledge, textual and linguistic skills, cultural and intercultural competence, as well as general documentation and research skills (Rico and Torrejón 2012; Austermuehl 2013). But also some specific PE skills will be needed such as a positive attitude toward MT and knowledge of pre-editing and controlled language (Koponen 2015, 3). In "General Translation", students were only introduced to the topic of PE and the aforementioned skills, and they will explore it further in other courses, particularly in our second-year course "Management of Translation Projects", where PE is again part of the assessment.

In Unit 2, we use the topic of the environment to introduce students to terminology management. "Terminology management is a generic term for the documentation, storage, manipulation and presentation of a specialized vocabulary" (Chen and Tian 2016, 2). Terminology management is crucial for professional translators, because it would be unrealistic to expect a translator to become an expert in every specialised field they translate and as such terminology mining or the search for the correct term can be very time consuming. With the aid of terminology management, the terminology of any specific discipline or translation project can be standardised to maintain translation accuracy and consistency, thereby improving translation quality and efficiency. A major advantage

of computer-aided translation and of translation management systems such as TRADOS is to maintain consistency in the project's terminology.

As established above, we are still awaiting the necessary funding to give our students access to such software, but we are still introducing them to terminology management, effective use of databases and electronic corpora, and teaching them how to create their own glossaries. Students are taught that in the creation of glossaries, the identification, selection and presentation of terms (i.e. alphabetical order, natural capitalisation) are key. In fact, glossaries are part of our assessment. Students are required to submit two multilingual glossaries (Spanish, French and English) of approximately twenty entries each. Students must use a source text in order to contextualise the glossary within an imagined translation project and are encouraged to also find a couple of parallel texts in order to optimise terminology mining.

Finally, the extended translation project is a highly interesting example of project-based learning, but due to the scope and space limitations of this paper will not be discussed here.

Conclusion

The need for greater computer and translation technology literacy among both professional translators and students of translation has been clearly established in this paper, as well as the financial, time, and resource constraints complicating the implementation of these technologies in the programme of studies of our MA in Translation (French/Spanish). Against this background, a move to online delivery of our foundational courses was seen as a valuable and strategic decision to streamline computer literacy and technological competences among our students from the earliest stages of their postgraduate learning process.

Since the move to online delivery has been quite recent, this paper only seeks to rationalise the changes made to the content and assessment of these courses as well as to present a very preliminary evaluation of their effectiveness in honing some core skills among our students. Those skills have been identified as revision, research and terminology skills, communicative and collaborative skills. This paper argues that familiarising our students with a virtual environment and encouraging their use of digital tools to optimise the translation process is successfully professionalising our graduates.

Of course, the courses described here cover only the first semester of our

programme, and all these translator competences are then to be progressively developed in the following semesters. Terminology management is key part of all our specialised translation courses (Technical Translation, Financial Translation, and Legal Translation) and the use of CAT tools to produce and revise texts, manage terminology, and optimise teamwork in larger translation projects is a key part of our courses on Institutional Translation and the Management of Translation Projects.

APPENDIX A:
PROPOSED SCHEDULE "PRINCIPLES AND PRACTICES OF TRANSLATION"

Monday 6–8pm & Tuesday 6–8 pm

Week 1 (14–18 September)	**UNIT 1** What is Translation Studies? (asynchronous)
Week 2 (21–25 September)	UNIT 1 Monday 6–7 (Q&A session) Tuesday 6–8 (Workshop Equivalence) Friday at midnight closes Forum Discussion 1
Week 3 (28 September–2 October)	**UNIT 2** Overview of Translation Theories (asynchronous)
Week 4 (5–9 October)	**UNIT 2** Monday 6–8 (Seminar on Creating a Translation Journal) Tuesday 6–8 (Workshop Functional Theories) Friday at midnight closes Forum Discussion 2
Week 5 (12–16 October)	**UNIT 2** Monday 6–7 (Seminar on preparing a Presentation) Tuesday 6–8 (Workshop Invisibility of the Translator) Research Topic to be chosen
Week 6 (19–23 October)	**UNIT 2** Tuesday 6–8 (Workshop Postcolonial/Feminist Translation) Friday at midnight closes Forum Discussion 3
Week 7 (26–30 October)	**UNIT 3** Text analysis and Translation Commentary (asynchronous) Presentation (20%) – Critical Review of an Article (TBA)
Week 8 (2–6 November)	**UNIT 3** Tuesday 6–8 (Workshop Paratexts in Translation/Translation of Paratexts) Submission of one example in the Translation Journal-Formative Feedback
Week 9 (9–3 November)	**UNIT 3** Monday 6–7 (Seminar on Writing a Research Paper) Tuesday 6–8 (Workshop Language Variety) Friday at midnight closes Forum Discussion 4
Week 10 (16–20 November)	**UNIT 3** Monday 6–7 (Q&A Session) Friday at midnight – Submission of Translation Journal (40%)
Week 11 (23–27 November)	**UNIT 4** New Technologies and Translation (asynchronous)
Week 12 (30 November–4 December)	**UNIT 4** Monday 6–7 (Q&A session) Tuesday 6–8 (Workshop Subtitling) Friday at midnight closes Forum Discussion 5
Week 13 (7–11 December)	Friday at midnight: Submission of Research Paper (25%)

APPENDIX B
PROPOSED SCHEDULE "GENERAL TRANSLATION"

Wednesday 6–8pm & Thursday 5–8 pm

Week 1 (14–18 September)	**UNIT 1** The Process of Translation (asynchronous)
Week 2 (21–25 September)	**UNIT 1** Wednesday 6–8 (Q&A session) Translation Portfolio Assignment 1
Week 3 (28 September–2 October)	**UNIT 2** Environment (asynchronous)
Week 4 5–9 October)	**UNIT 2** Wednesday 6–8 (Seminar on creating glossaries Translation Portfolio Assignment 2
Week 5 (12–16 October)	**UNIT 3** Journalism (asynchronous)
Week 6 (19–23 October)	**UNIT 3** Wednesday 6–8 (Seminar on writing a translation commentary) Translation Portfolio Assignment 3
Week 7 (26–30 October)	**UNIT 4** Tourism (asynchronous)
Week 8 (2–6 November)	**UNIT 4** Wednesday 6–8 (Q&A session) Translation Portfolio Assignment 4
Week 9 (9–13 November)	**UNIT 5** Sports (asynchronous) Friday at midnight: Submission of Glossaries (Two topics)
Week 10 (16–20 November)	**UNIT 5** Wednesday 6–8 (Q&A session) Assignment 5
Week 11 (23–27 November)	**UNIT 6** Literature (asynchronous) Extended Translation – ST assigned
Week 12 (30 November–4 December)	**UNIT 6** Wednesday 6–8 (Seminar on Translation Commentary II)
Week 13 (7–11 December)	**UNIT 6** Friday at midnight: Submission of Extended Translation

Notes

1. Parallel corpora consist of a collection of source texts (ST) in one language and their target texts (TT) in another language. ST and TT are aligned at a certain level. Depending on the number of languages involved in the corpus, these parallel corpora can be bilingual or multilingual in nature (Neshkovska 2019, 66–7).
2. Comparable corpora include texts that are comparable at different levels. A comparable corpus can be monolingual, bilingual and multilingual. A monolingual comparable corpus is composed of the non-translated texts and translated texts in the same language. Texts in the two corpora are similar with regard to registration, language variation, and time span, and the size of the two sub-corpora is roughly the same. A bilingual or multilingual comparable corpus contains texts in two or more languages which are comparable but not in translational relationship to one another. A corpus of this kind is primarily used in contrastive studies between languages (Neshkovska 2019, 67).
3. Translational corpora consist exclusively of texts translated from one or more languages into a certain language. Generally, a translational corpus is compiled for the investigation of features of translations, translational norms, translators' style, etc. However, it should be used hand in hand with a corpus which contains original texts (Neshkovska 2019, 67).
4. Some important terminological databases available for students to access freely could be UNTERM (United Nations Multilingual Database), WTOTERM (World Trade Organization Terminology Database in three official languages) or the UNICRI (United Nations Interregional Crime and Justice Research Institute) Thesaurus. In the MA in Translation (French/Spanish), these types of sources are extensively consulted by students when completing their "Institutional Translation" course.
5. The titles of the eight courses are: Principles and Practices of Translation, General Translation, Institutional Translation, Technical Translation, Financial Translation, Legal Translation, Management of Translation Projects and Research Paper.
6. The same argument can be made about asynchronous materials in General Translation, whose assessment is going to be discussed in the following section.

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Approaches and Initiatives for Navigating the Teaching and Learning of Spanish as a Foreign Language in the Context of COVID-19

MAITE VILLORIA NOLLA

Abstract

This article explores the application of new technologies in foreign language learning. Particularly, it analyzes the implementation of innovative pedagogical strategies and practices, as well as the methodological approaches adopted by Spanish Majors in the Department of Modern Languages and Literatures during the COVID-19 pandemic. Among these practices, the article explores strategies incorporated into the design of the courses such as the inverted class or "Flipped Classroom", collaborative writing and online reflection, gamification, and Virtual Intercultural Exchange.

The aim is to see whether these strategies, including intercultural awareness, have improved Spanish as Foreign Language learning skills.

Keywords: foreign language education, emergency remote teaching (ERT), flipped classroom, collaboration, self-reflection, Virtual Intercultural Exchange

Introduction

RAPID DEVELOPMENTS IN TECHNOLOGY AND ITS APPLICATION IN education have allowed the implementation of student-centred approaches (Cojocariu et al. 2014), where the roles of instructors and learners have shifted and control over learning has been replaced. During the last few decades, the application of new technologies

in foreign language education has been essential for the innovation of methodologies and practices that modify the entire learning process, and its expansion has also altered traditional settings. Indeed, technology offers the possibility to alter traditional methods to develop students' language skills and critical thinking through collaboration, reflection, and active participation.

As educators, we are compelled to explore the application of these new technologies in foreign language education and examine whether they are effective tools through which to implement innovative teaching and learning practices, as well as methodological changes. When properly utilised, technology encourages learning autonomy and self-reflection, especially when implemented through a blended approach that includes online resources and reflective and collaborative tasks, as they have proved to be empowering tools to develop learners' motivation and metacognitive awareness (Sevilla and Gamboa 2016).

In addition, technology has made distance or remote education easier and learning more flexible with the increasing possibility to learn from anywhere at any time (Liguori and Winkler 2020). However, it has also emphasised the fact that learners mediate remote education differently. Remote and online learning is beneficial to students who favour self-regulated learning, as "they can spend more time on the concepts that they need help with and less on those that they can pick up quickly" (Kirtman 2009, 110). Indeed, "self-regulated learners tend to use various cognitive and metacognitive strategies to accomplish their learning goals" (You and Kang 2014, 126), as they have "the ability to plan, monitor and evaluate their own behavior and understand learning strategies" (Matuga 2009). However, self-regulation is not enough to succeed as motivation is a key factor needed in any learning process. On the other hand, we also must bear in mind those students less used to cognitive and metacognitive learning, who may not feel so comfortable learning online (You and Kang 2014) and encourage them to adapt gradually and make sure they will keep engaged in their learning.

COVID-19 and Digital Transformation

The threat of COVID-19 has presented some unique challenges or, more positively perceived, "opportunities" to higher education. Due to the pandemic, colleges and universities have been faced with difficult decisions regarding the continuation of teaching and learning while ensuring the safety of faculty and students. Most institutions have had to cancel face-to-face classes and implement

Emergency Remote Teaching (ERT) to help prevent the spread of the virus. This has called for the adoption of unprecedented changes regarding course delivery and pedagogical approaches for faculty and students. Although ERT arrived at a time in which online and blended learning were already incorporated in Higher Education and seemed the preferred mode of instruction for some institutions, the present global pandemic has accelerated its wider implementation. ERT has enabled the flexibility of teaching and learning needed in such critical situations and, as stressful as it was, due to the urgency with which ERT was implemented, we cannot deny the advantages of online modes during times of crisis. The sudden change has taken us all aback and some campuses were able to support personnel and teams better than others.

Students did also undergo dramatic changes that affected their learning patterns. For example, in Jamaica, like in many other countries, most educational institutions were closed, and young children stayed at home while many students' parents kept working. This situation forced many university students to become caretakers of their younger siblings, which took time away from their learning. Further to this added responsibility, students might not have been able to attend courses immediately due to a lack of adequate internet connectivity, badly functioning technical devices, and/or financial constraints brought about by the downturn in the economy.

Indeed, remote synchronous Spanish as Foreign Language classes – Major Programme – were problematic at the outset due to the continued absence of many students. Gathering the whole class was hard and even when all students attended the virtual synchronous meeting, other technical issues were encountered. Some areas of Jamaica, as it happens in many other countries, already experience frequent power cuts which have caused internet connectivity to be a key issue for both students and staff. In rural areas, where many students at The University of the West Indies reside when not boarding in halls, a lack of adequate devices, and internet services with low bandwidth has caused time lags, poor sound and bad images quality, loss of lip synchronization, and verbal cues which pose major challenges to synchronous teaching. Consequently, teachers have had to find alternative ways to deliver their classes and to adapt materials, transferring content to asynchronous teaching. As a result, we all needed to adapt learning strategies to the new environment and make use of already available technologies such as university platforms – that include Wikis, forums, quizzes, glossaries, assignments, videos, and URLs, etc. Others include social media, Zoom,

WhatsApp, Google Docs and learning apps – like Flipgrid, Padlet, Pickerwheel, Mentimeter, Lyricstraining and Kahoot – and other languages learning apps such as Duolingo and Tandem. [1]

Therefore, though many institutions are leaning towards the permanent inclusion of distance teaching along blended instructional lines as it seems flexible, inclusive, and student-centred, we cannot consider ERT as a long-term solution because its success is contingent upon all students' total access to its online teaching platforms and resources. Emergency Remote Teaching should be engaged as a temporary option for emergency course delivery when the traditional mode is not possible. Indeed, although the primary objective of ERT was to provide temporary access to instruction and offer reliable support during times of crisis, moving towards online and/or blended education seems to be the way forward for many institutions. However, moving fully online will require the reconfiguration of infrastructure, pedagogy, and teaching practices, which some institutions seem to overlook. [2]

Tuning into Remote and Online Teaching

Although online learning has become a key part of the foreign language learning experience, the impact of COVID-19 has taken classrooms outside their natural environments, forcing educators and learners alike to adapt accordingly. Therefore, it is crucial to analyze how academic institutions have been able to adopt the remote learning mode in such a massive manner (Carey 2020) and whether the learning outcomes indicate that this is the way to go. However, to see all its benefits, educators should acquire new skills to use pedagogically transformative practice, as remote teaching is not merely the use of technology to convey old teaching methods. As Kern, Ware, and Warschauer (2004) point out:

> The use of the internet [is] not so much to teach the same thing in a different way, but rather to help students enter a new realm of collaborative inquiry and construction of knowledge, viewing their expanding repertoire of identities and communication strategies as resources in the process (21).

Therefore, the belief that a teacher who is skilled at face-to-face delivery will become a good distance/remote teacher overnight is a common myth (Davis and Rose 2007). As Davis and Rose claim, "even the most jovial and enthusiastic tutor of face-to-face mode cannot automatically become a successful online

teacher" (318). However, research shows that teachers who believe in the use of technology have greater enthusiasm and motivation when teaching online and greater capacity to face challenges of online learning and those attitudes may be transferred to students. Hoven (2007) explains that teachers' adoption of change and innovation are more likely to occur when "they can see positive benefits in terms of direct relevance to their content area, usefulness from a practical task perspective, and increased effectiveness for their day-to-day classroom teaching" (137). As such, teachers need training beyond technical skills and software specifics (Compton 2009). According to Easton (2003), online instructors require a shift in their perception of instructional time and space, virtual management techniques, and ways of engaging students through virtual communication. [3] Therefore, the medium requires a new set of communication skills besides the ones required for conventional classroom teaching.

As noted by Hampel and Stickler (2005), online language teachers need different skills from those utilised in traditional foreign language instruction as well as online teachers of other disciplines (*see* Hampel and Stickler's skills pyramid according to teacher level[4]). Pedagogical strategies for online community building and socialising should be examined to facilitate communicative competence and online interaction (Hampel and Stickler 2005). This implies the revision of course design and assessment as well as the inclusion of interactive tasks, collaboration, reflection, immediate feedback, virtual office hours, and more flexibility with deadlines. The Department of Modern Languages and Literatures (DMLL) adopted this position and required their faculty to modify assessments and re-design course content accordingly to be used on the university's virtual learning platform, Our Virtual Learning Environment (OurVLE). [5]

However, academic staff training during this pandemic has mainly focused on digital literacy or software-specific orientation. While it is true that these workshops have been very informative and have boosted lecturers' confidence in the effective operation of these digital platforms, specialised training for best pedagogical practice for online instruction has been rare. Consequently, educators have been searching for different ways to access such information through departmental or private initiatives such as attending webinars, online courses, etc. The DMLL in association with *Agence Universitaire de la Francophonie* offered the department's faculty a well-organised training course on pedagogical approaches and strategies which mainly focused on online foreign language

learning, including learning strategies such as "Flipped Classroom", gamification, and telecollaboration.

Adopting Strategies to Online Learning

Asynchronous instruction seems to be the most adopted model of online education because of its flexible *modus operandi*. It provides students with accessible materials in the form of audio/video lectures, handouts, PowerPoint presentations, and interactive activities/quizzes that are made available through institutions' course management platforms. However, as foreign language education is a largely skill-based process rather than only a content-based one, the acquisition of speaking and listening skills also requires synchronous teaching to promote interaction between facilitators and learners as well as among learners. Therefore, real-time visual and oral interaction is imperative. To adequately adapt to the current crisis while ensuring the inclusion of all students despite the disparity in their internet access, the DMLL resumed lectures and listening classes synchronously and asynchronously, the former taking place either through OurVLE and using other online resources such as Zoom. Students benefit from these synchronous sessions, as they are afforded the opportunity to improve their oral proficiency and listening skills, and to engage in intercultural exchange. Also, the students collaborate, present their work, and get immediate feedback from tutors and peers.

One of the most common questions regarding online language learning has been related to oral proficiency. According to Blake et al. (2008), many institutions and educators still harbour doubts that oral skills in a foreign language can be developed through online courses without synchronous components. Indeed, this apprehension seems valid given that language "is not just knowing phrases and conjugations but forming coherent meaning and using that meaning appropriately to engage in real or realistic communication with other speakers of the language" (Lord 2015, 401). Thus, it is contended that weekly Spanish oral classes ought to remain a hundred per cent synchronous.

Moreover, another commented weakness in online courses is the reduction of social interaction, and the difficulty it poses in forging peer relationships which are fundamental for learning and developing a sense of community. According to Harrison and Thomas (2009), communication online has been regarded as superficial and requires time to mature, and this delay may cause students to feel isolated. The absence of a "real" classroom, which better facilitates communi-

cation, can cause not only a lack of interaction but also anxiety and uncertainty amongst students. In addition to the lack of non-verbal clues, such as reading facial expression and lip reading, common technical difficulties of online teaching, may cause the distortion of image and sound. Conversely, Guichon (2010) suggests that the implicit time restriction of synchronous communication, at times exacerbated by the above-mentioned technical challenges, problematises the overall experience of online teaching and learning. These technical failings cannot be overlooked, as they change behaviours and negatively affect the ways in which students interact with teachers and fellow students in a virtual classroom.

It is, then, imperative that coordinators invest time and effort into building community and establishing communication, using alternative pedagogical means, adopting more personal approaches and methods, including collaboration through in- and out-of-class teamwork – using videoconferencing platforms, such as BBC or Zoom, that allow for the subdivision of the groups – and exploring Virtual Intercultural Exchange or *Telecollaboration*. By incorporating these practices, the lack of interaction which tends to lead to helpless passivity may be avoided.

Effective communication and visibility within the virtual classroom motivates active student engagement. Besides, the teacher's presence is necessary for realising personal, meaningful, and education learning outcomes. Garrison, Anderson, and Archer (2010) claim the teachers' presence fosters cognitive and social processes and interaction. Thus, presence is an important factor in structuring and facilitating active learning and as stated earlier, builds a sense of online community and supportive response. As Stacey (2002) suggests, the lack of a sense of community can lead to students' frustration. Therefore, the teaching needs to be structured to include synchronous meetings in which real-time interaction takes place between facilitators and students to increase communication and build a sense of community. This cognitive function of the teachers' role is paramount since it helps to create constructive dialogue through guided discussion which largely influences student performance. Therefore, it is social interaction – a learner-instructor and learner-learner interaction, and content interaction – between learner and content, that aid the achievement of learning goals.

In the DMLL, 50 per cent of synchronous classes for lectures and listening practice have remained in place for the Major in Spanish programme, mainly taking up a "Flipped Classroom" approach to optimise real-time meetings to promote a sense of belonging and reinforce what they have autonomously learnt, through interactive activities and discussions. Moreover, we have embraced mul-

timodal Virtual Intercultural Exchange to boost students' intercultural competence, language skills, and digital literacy. This *Telecollaboration* was enriched by gamification, highlighting the social constructivist view of the learning process.

These synchronous sessions also include group work, as it decentralises teaching (McLoughlin and Lee 2010), and promotes engagement, participation, multidimensional interaction, and encourages learners' autonomy. These sessions are recorded, affording students the possibility to watch them in the future. According to Bergman and Sams (2012), this is the great advantage of new technologies and online teaching, as students can view the material again in their own time, rewinding and fast forwarding it, and then apply concepts in practical and interactive activities. Therefore, the synchronous meeting becomes not only the place from which to work out problems and promote sociocultural awareness but also to communicate using the target language and engage in Socratic dialogue. However, we must bear in mind the number of hours students spend in front of device screens during their ERT. Some of them stated, both in their journal writing and in group forums, that the constant exposure to device screens has caused them stress and fatigue, and this is the main reason for which they welcome more flexible asynchronous classes.

The asynchronous classroom has been of great help to students who have full-time employment and to those who did not have good connectivity or adequate devices at their homes. Moreover, they are an excellent tool to promote reflection and increase learners' autonomy (Benson 2001; Holec 1981; Nunan 1995; Alford and Pachler 2007). In such times, students read, undertake guided activities which include research, production of texts – including reflexive diaries or journal writing, portfolio and collaborative writing – completion of quizzes and meeting up with their peers to carry out group work, etc. The asynchronous assignments are uploaded to the platform and revised weekly to identify progress and send timely feedback to the students. This delivery mode required educators to spend longer hours not only in making effective strategies and giving clear instructions but also writing feedback to ensure formative learning and summative assessment. Finally, we needed to be available, when possible, for individualised orientation – carried out in weekly virtual office hours in which students using Zoom individually express their concerns, share thoughts, etc. Students attended office hours mostly towards the second half of the semester and reported in their journals their appreciation of the opportunity for direct and individual interaction with the teacher.

Practices and Strategies for Resuming ERT Classes

Classes resumed as ERT in April 2020. In the Spanish programme, first- and second-year Spanish language courses, Spanish Level IB and Spanish Level IIB (SPAN1002 and SPAN2502) took place asynchronously and synchronously, in a balanced manner.[6] As students already knew each other and the dynamics were already in place, their participation improved shortly after classes resumed. Once participation was restored and they felt more at ease with the online medium, they were able to enhance other aspects of the language learning process. By the end of the semester, without compromising on quality standards, the learning objectives were accomplished, and students perceived no severe effects on their learning, obtaining good results with average passing grades of over 80%. However, there was not enough time to explore and fully analyze a large variety of innovations put in place.

The first semester of the academic year 2020/2021 started in September 2020. This semester's focus groups were first and second level Spanish students from the courses SPAN1001 and SPAN2501. Although the students in SPAN2501 (Spanish Level IIA) had already interacted face-to-face and remotely with their peers and the teacher, it took a few sessions to restore their confidence as their motivation was lower than the previous academic year. To boost their interaction and confidence during seminar classes, the lecturer intentionally drew from previous experience, helping the students to connect between concepts and to understand that they were building on the foundational knowledge they already had. This was clearly stated when they wrote their reflective diaries and participated in learning forums. However, the participation was lower than in previous face-to-face sessions. Some students cited internet connectivity as a major issue while others highlighted a fear of the new environment – camera use, video recording, etc. Only approximately 10 per cent of students mentioned that it was their lack of confidence in performing in the foreign language.

During the semester, there were group presentations, essay and story writing, comparative grammar, etc. With the implementation of the "Flipped Classroom" pedagogical approach, students had a variety of materials, that is, content grammar videos, written texts, songs etc., to prepare before classes which were deeply analyzed and practised during synchronous class. Students were also asked to use individual and collaborative online resources such as Wikis and Google Docs, collaborative forums, and language learning apps such as Duolingo and Tan-

dem, among others. Finally, students were invited to participate in an organised Virtual Intercultural Exchange, a computer-mediated learning practice, which was going to be set for the following semester. This activity allowed them to work directly with international peers from other regions of the world, to experience native articulation of the target language, share intercultural knowledge, and improve digital literacies.

Flipped classroom approach for synchronous classes

During the last two semesters, Semester II (2019/2020) and Semester I (2020/2021), and currently (Semester II, 2020/2021), lecturers in the Spanish Major programme have implemented Flipped Learning as the main teaching strategy for first- and second-year language courses. The Flipped Classroom method, or inverted classroom, as it was previously termed, is a pedagogical approach in which teaching and learning are rearranged inside and outside the classroom. The aim of this approach is to increase in-class exposure time to the target language and thus, enable learners to focus on selected topics in greater depth. This learning model is considered modern and innovative, although it has been around for decades in face-to-face classrooms. However, with the increasing use of technology in classrooms, educators have been implementing the Virtual Flipped Classroom. With the Virtual Flipped Classroom approach, learners are required to learn online using e-content and e-activities prepared by lecturers before synchronous learning sessions. It employs asynchronous video lectures and readings with practice exercises and incorporates individual and group-based problem-solving activities in the lesson plan (Bergman and Sams 2012; Tucker 2012).

In the Flipped Classroom mode, the teacher creates videos and interactive lessons so that instruction that used to occur in synchronous classes is now accessed autonomously, in advance of the class. Thus, students of Spanish have been exposed to new materials outside of and before the class by reading or watching materials uploaded by the instructor on the OurVLE platform, available to all students enrolled in the courses. In terms of Bloom's Taxonomy (Anderson and Krathwohl 2001), students did lower levels of cognitive work before the class (gaining knowledge) and then, they would carry out higher forms of cognitive work, assimilating and applying that knowledge in class. Students were able to watch the audiovisual content – mainly YouTube grammar lessons and recorded lecture classes – or read texts such as articles, literary excerpts, linguistic and

grammar notes, etc. – and then answer grammar and content quizzes and/or guided questions about the linguistic and thematic concepts. Thus, during the synchronous lecture students undertook more engaging and interactive activities using the target language by applying the concepts previously reviewed in comparative grammar exercises.

Consequently, by spending less time on in-class grammar explanations the classroom becomes more effective and allows for a deeper focus on the use of the language. Students are required to use their new factual knowledge in the class where they would have direct access to immediate feedback from peers and instructors who can correct misconceptions and provide scaffolding for students to reflect and achieve an understanding of the concept. In that way, "the classroom becomes the space to work problems and analyze more advanced concepts in collaboration" (Tucker 2012, 82). Thus, through the Flipped Classroom we instruct by applying a metacognitive approach where students can set their objectives and monitor their progress, engaging in higher-level thinking activities. On the other hand, it promotes collaborative problem solving (Karabulut 2017) and enhances the interaction between classmates and teacher. Therefore, the Flipped Classroom approach promotes academic twenty-first-century skills such as critical thinking, creativity, metacognition, problem resolution, collaboration, motivation, self-efficacy, learning awareness, and perseverance and has proved useful during ERT.

However, this pedagogical approach can be challenging, as there are several obstacles that must be tackled before getting satisfactory learning outcomes. First, students need to gain learning autonomy as they are asked to explore and reflect by themselves to prepare for the following session. Thus, the content needs to be clearly and explicitly explained, otherwise students may be unsure about what they should be doing. Consequently, the Flipped Classroom is a balance between constructivist methods and teacher-directed learning, as students who are initially unfamiliar with the mechanics need more structure and guidance. However, once the approach is understood, learners tend to take more responsibility for their learning and are cognisant of their progress. Also, they become more confident in taking risks, making errors, and come to regard these errors as a positive learning tool. Through Flipped Classrooms, the synchronous session is not structured as a lecture but as an exercise that focuses on student-centred learning with activities that encourage the development of higher order thinking skills. This pedagogical strategy worked better with the second-year group, as they were better equipped for autonomous learning.

Collaborative online writing using Wikis, Google Docs and Forums

Writing is not simply an individual act but an interactive and social process. Research shows that foreign language learners obtain great benefit from collaborative writing (Aydin and Yildiz 2014; Chu and Kennedy 2011; Dobao 2012; Storch 2005). Collaborative writing exercises encourage learners to exchange feedback, express ideas, share linguistic and organisation problems, and contribute to decision making on all aspects of the written work (Elola and Oskoz 2010). The sense of co-authorship of the finished product also encourages students' participation. Therefore, it not only involves collaborative thinking but also helps learners to focus on grammar accuracy, lexis, and discourse (DiCamilla and Anton 1997; Swain and Lapkin 1998). However, collaboration does not need to be bound to the physical classroom. The use of social technology has brought a renewed attention to L2 collaborative writing (Arnold, Ducate, and Kost 2009; Elola and Oskoz 2010; Kessler 2009; Kessler and Bikowski 2010). The open editing and review structure of Wikis, for example, makes them a suitable tool to support collaborative writing (Parker and Chao 2007). Forums and Google docs are also online tools that involve community communication and allow for collaborative writing. The use of Wiki, a tool included in the OurVLE platform, increased with the development of computer-based technologies but, according to Bikowski and Vithanage (2016), leaners can expect similar results using Google Docs.

Online collaborative writing moves from individual knowledge to collective production and thus, is grounded in the social constructivist paradigm of language learning that places learners as receptors and constructors of knowledge. In addition, language is not only a means of communication but a cognitive tool that enables learners to solve linguistic problems. Since no two learners have the same strengths and weaknesses, through collaboration, they can enhance their performance beyond individual levels of competence. Therefore, activities that foster interaction and help to construct collaborative knowledge are vital for language learning.

As such, during the last academic year, the first- and second-year courses of the Spanish Major programme have relied on online collaboration to engage students in collective writing tasks in which they helped each other not only to organise content and correct errors but also to achieve syntactical complexity and grammatical accuracy. Through collaborative writing, students were prompted to make suggestions and modify content in a participatory manner. Courses

were divided into small groups to carry out their work for about five weeks in the middle of the semester. This allowed students to carry out pre-writing and post-writing activities to identify any individual gains and improvement (Wang 2015; Bikowski and Vithanage 2016). The students in SPAN1001 completed two tasks using Wiki or Google Ddocs and SPAN2501 undertook four collaborative tasks using Wiki and Forum tools included in their OurVLE course container. Students were monitored in each Wiki and/or Google Docs task and the facilitator gave written suggestions. The groups started their work during a synchronous meeting through breakout-rooms in Zoom and, while they were discussing their theme and planning the outline for the task, the facilitator frequented the rooms in case they had doubts or further questions. The creative tasks involved were subtitling a short movie or cartoon using H5P and/or Aegisub, creating an antibullying campaign, writing a narrative text – storytelling or anecdote, designing a tourist leaflet together with a video presentation and a reflective essay on their learning process.

Each group was given one week to write and submit their draft. Once submitted, the instructor gave feedback regarding content, organisation, and grammar. Following Lee's (2010) suggestion, instructor assistance was kept to a minimum and global feedback was given to encourage scaffolding. The feedback included questions such as: When is the second conditional required? What does a doubt verb or a possibility require? Upon receiving feedback, students edited their drafts including teachers' suggestions which proved to be a positive exercise to make them reflect upon linguistic and structural elements. The activity involved discussion, dialogues, negotiating meaning over content, organisation and sequencing ideas, and language, that is, detecting grammar mistakes, syntax, and lexicon. Finally, the work was presented in class and was peer-reviewed. Eighty per cent of the final tasks showed an improvement in language accuracy and syntax, adequate lexicon, and content organisation. This was assessed on fluency, content, syntax, vocabulary, and grammar.

To determine whether the students had interacted and collaborated during the process, the facilitator had access to the Wiki pages and Google Docs – including discussions and editing, and could follow the interaction patterns. In general, there was a tendency for the stronger member of the group to take control of the project to earn a higher grade, while some other members remained passive. However, it was evident that each group member learnt from the collaboration and that they were able to reflect on this mode of learning.

Online reflection for socio-constructivist learning

Reflection is not just looking at the past but learning from it by bringing back knowledge and past experiences that lie deep and are taken for granted but not explicitly acknowledged. According to Helyer (2015), through reflection, we examine the past "to learn from what happened and perhaps not repeat mistakes" (15). On the other hand, reflection is also increasingly associated with *reflection on action* (Schön 1987), as "our thinking serves to reshape what we are doing while we are doing it" (26). Thus, it is important to promote students' reflection throughout the learning process, encouraging them to establish connections between theory and practice, to identify the relationship between course materials, activities, and tools selected, etc. In this way, by writing online self-reflection, students are aware of their learning, while exploring their thoughts and feelings to produce and *revise* their own insights. Reflection, then, transforms experience into learning.

Once students understand such interconnections and recognise that they build their knowledge (Helyer 2015; Roberts 2008), they are better equipped for *learning to learn* (Villoria 2019). Indeed, reflection promotes self-assessment and anticipation of future actions and thus, increases students' confidence and autonomy, making them responsible for their learning (Villoria 2019; Helyer 2015). According to Bridgestock (2014), *learning to learn* is a crucial skill, alongside accepting responsibility for one's own learning and development. However, Cavilla (2017) reminds us that, unless it is planned, reflection may affect students' affective levels but not necessarily cognitive ones. Thus, to be useful for academic performance, reflection needs to be structured and implemented deliberately throughout the course. Helyer (2015) maintains that structuring and embedding a reflective question into an activity is a good practice for future development. She states

> Developing an ongoing ethos of reflection means that an individual begins to automatically challenge and question why tasks were undertaken in a certain way rather than how they were carried out, and they will become accomplished at recognizing that they are learning and building skills continuously; it is not a standalone process. (23)

Therefore, learning through reflective practice is essential to the overall process of learning as it provides several opportunities to explore new ways and methods

to enhance students' knowledge. If we consider the fact that foreign language skills are developed progressively, there are grounds for considering reflection as an essential tool to acquire linguistic knowledge. In addition, reflection is not solely an individual's mental process or form of internal problem-solving but a collective activity that helps individuals to redefine their knowledge and approaches to enhance their skills. Therefore, the content design for SPAN2501 and SPAN2502 has been revised to enable students to work together and make structural connections to understand how their knowledge transformed from one level to the next (Bloom 1956). The OurVLE course containers were organised in such a way that students could see their weekly progress, and gradually link grammar and lexical elements to social context. In addition, reflection was implemented in the course by incorporating explicit questions within activities and/or through specific tasks such as journals, portfolio, and collaborative reflective forums.

The students' diaries and their answers to reflective questions for each task showed that online and remote learning promote reflection and behaviour changes through self-directed revision of each portion of the assignment, interconnecting it to other portions of the course or the entire course. Through diaries, they expressed their own identity, evaluated their learning process, and elaborated on concepts they had learnt from the class. Indeed, journal or diary writing helps to develop an awareness of one's learning as it transfers inner speech into written text. In these diaries, Spanish language students from the courses mentioned that reflection helped them to identify the areas of weakness and seek clarification when it was needed. As a result of reflections, some students realised which methods best helped them to improve their learning. One student expressed an appreciation for reflection exercises at the end of most assignments because the explicit question allowed her to summarise what she learnt and how she had learnt it.[7] In general, journals enabled them to look introspectively and identify which methods worked for them, while allowing them to make necessary changes to what did not. Through reflection other students became aware of their "fossilised errors" – those common grammar mistakes which have never been properly tackled and remain with us even when the use of language is fluent – and of those aspects of their practices that need to be "un-learnt" or at least amended, as they were not helpful (Helyer 2015).

However, it is important that students' process of self-awareness takes place under the instructor's guidance. During asynchronous learning, learners are

not always able to identify the key elements of an assignment and they do not stop frequently to think about how the assignments are designed or the possible connection with other assignments and the course outcomes. As such, questions should be directed to ensure correct interpretation, and to generate debate and understanding of those key factors.

Moreover, students felt heard and understood as the suggestions they posted in the reflective collaborative forums were taken onboard and thus they became co-writers of the course. There were two reflective collaborative forums during the semester: the first in week 4 and a second one in week 10. The guided forum included a questionnaire that students answered in a joint manner and then each group shared their responses via the OurVLE Forum with the rest of the class, promoting deliberation. In this way, they had to share their ideas about learning: methods, strategies, practices, and activities. They also discussed their weaknesses and strengths and suggested additional tasks. For instance, they felt the amount of online work was overwhelming. The workload was, subsequently, reviewed and towards the last few weeks of the semester the amount of work for the asynchronous classrooms was slightly reduced. Several students also showed interest in the analysis of song lyrics and undertaking more group work. These suggestions were also taken on board and students designed an activity in H5P with their favourite Spanish/Latin American song. Each student chose the video of a Spanish song and created questions embedded in the video. The activity was later presented to the class and the colleagues had to answer the questions. Also, students used lyricstraining.com, a free platform to learn and improve foreign language skills through music videos and the lyrics of songs.

Sharing collective forums and reading what worked for others also helped them to progress and try new things. Indeed, reflection from a sociocultural perspective is developed through social interaction and semiotic mediation (Vygostsky 1978), and research suggests that it is most effective when reflection involves others, as the chance to collaborate and share ideas about new ways of operating enhances the learning process (Gray 2007). Therefore, although reflecting critically and sharing outcomes can be frightening and may cause feelings of vulnerability amongst those exposing their thoughts and feelings (Helyer 2015), adopting collaborative reflection offers multiple input and thus, improves students' performance and, consequently, satisfactory grades, which is one of the measurable outcome in any student learning process.

Gamification

Gamification has been used in both traditional and web-based teaching-learning contexts and there is a strong link between gamification and new technologies. Therefore, as the 21st century moves forward and education becomes more techno-oriented, gamification is being positioned as a key strategy in teaching and means of overcoming the challenges that the learner faces while pursuing fluency in foreign languages. Gamification not only applies game mechanics in non-game related contexts but also enhances language learning skills (Kapp 2012; Wood and Reiners 2012; Figueroa Flores 2015). The main objective is to increase participation and motivate users using game elements such as points, badges, leaderboards, and immediate feedback. Gamification mechanics include time limits, progression, feedback, clear goals, among others to increase participation, motivation, empowerment, and engagement.

Gamification has been implemented as a motivational tool and a form of formative assessment. According to Muntean (2011), game-based learning tackles both intrinsic and extrinsic motivations, combining different strategies, elements, and experiences. While own achievement is an intrinsic motivation that improves engagement and autonomy, extrinsic motivation is achieved by using rewards, points, badges, etc. On the other hand, Graham (1984) states that gamification involves instrumental and integrative motivation, as it promotes retention and memory, cognitive organisation, and active and conscious focus on action upon events. Consequently, gamification positively influences students' behavioural patterns, habits, and emotions through problem solving. In addition, game-based tasks promote competition through social interaction.

Sailer, Helse, and Klevers (2013) identify six principal perspectives in motivation research that have been linked to gamification and can apply to foreign language learning: trait, behaviouristic learning, cognitive, self-determination, interest, and emotional. Each one of these characteristics enhances motivation for the learners. For example, the trait characteristic advances motives as individual experience such as achievement, need for power, and affiliation (McCleland 2009). Setting rules determines how to reach the goal and a timely feedback system provides information on the progress of each participant. On the other hand, game-based elements such as points, grades, badges, progress bar status, performance graphs, and leaderboards are explicit visual representations of achievements.

The Spanish courses SPAN1001-SPAN1002, SPAN2501 and SPAN2502 have

integrated game-based tasks into both tutorials and seminar classes to record students' progression as well as to facilitate students' achievement of course objectives. Using the OurVLE platform, teachers designed quizzes that provided immediate feedback. When the quiz was not designed as a graded assessment, students could make more than one attempt to record their progress. Students were also encouraged to use Kahoot amongst other platforms. Kahoot is a game-based platform where facilitators created a few quizzes for them, providing badges, reward points, and trophies. For instance, in Kahoot, the game elements were more obvious than in the quizzes used on OurVLE, as it provides badges, reward points, trophies, and allows educators to check the completion track, total logins, and frequency of visits to the platform.

Badges are an excellent tool for language learning because they improve participation and lower levels of anxiety and shyness while increasing confidence due to their ludic appearance. However, they cannot be used as a substitute for a graded assessment, just as games cannot substitute the goal of the language units; they may only improve it. Unfortunately, student motivation is triggered mostly by grades, forgetting sometimes the significance of the whole learning process. In any case, gamification has not been fully explored with the cohort groups to be able to make a full assessment.

Virtual Intercultural Exchange: Telecollaboration

In an interdependent world, facilitators need to expand the limits of students' mobility and expose them to a deeper understanding of intercultural challenges. Virtual Intercultural Exchange projects contribute to the development of learners' autonomy, linguistic accuracy, intercultural awareness, and digital literacies. O'Dowd (2017) defines it as "The application of online communication tools to bring together classes of learners in geographically distant locations to develop their foreign language skills, digital competence, and intercultural competence through online collaborative tasks and project work" (1).

Virtual Intercultural Exchange creates opportunities for (semi)authentic communication, meaningful and guided collaboration, and first-hand experience of working and learning with partners from other cultural backgrounds and contributes to internationalising university education. Consequently, Virtual Intercultural Exchange or Telecollaboration has become an essential tool for the development of students' intercultural awareness, and it is an alternative for those

who cannot engage in traditional physical mobility exchanges. Telecollaboration is especially useful in light of travel restrictions implemented as a result of the COVID-19 pandemic.

Thus, there is a growing interest in Virtual Intercultural Exchange, not only to repair the lack of physical mobility but also to offer students the possibility to interact with international peers using their target foreign language. Some students in the cohort groups expressed a desire to interact with international partners and thus downloaded Tandem, where they can meet and chat with native Spanish speakers. However, a Virtual Intercultural Exchange cannot be compared to Massive Open Online Courses (MOOC), nor to social media groups where there are not educational purposes, nor sustained interaction. We cannot compare it with mobility or virtual mobility either since the latter does not have the same sustained pedagogy for interaction. Virtual Intercultural Exchange is a learner-centred approach that involves sustained learning and intensive interaction. It develops technology skills and is structured to foster a mutual understanding of the new culture. The University of the West Indies currently has an agreement of traditional foreign exchange with the Universidad de Valladolid, Spain, through the Erasmus + programme. However, this is for a very limited number of students and we need to find alternative options to provide students with the opportunity to internationalise while developing their ability to communicate successfully in intercultural contexts using technology in innovative ways.

Therefore, during the first semester of the academic year 2020/2021, an experimental modelling approach was undertaken together with students from the Universidad de Caldas, Colombia, to offer students from both universities the opportunity to take part in a virtual intercultural exchange project to take place during the following semester.[8] Before its implementation, educators from both institutions met to plan and structure the exercise, create activities, and finalise the timetable. Then, instructors informed the SPAN2502 students of the possible Virtual Intercultural Exchange, and they were enthusiastic about the opportunity. The students were informed that, as in any intercultural collaboration, the project would require compromise, willingness to adapt, openness to cultural differences and understanding what is acceptable and what is not when interacting. Indeed, this will cause a slight change in behavioural attitudes to language learning which is a key component for success. To communicate with international partners, students will be using different apps and platforms such as Zoom, WhatsApp, etc. The teacher will be following such conversations and discussions to address

any possible issues as soon as possible. The project's approach has been enriched by gamification strategies to engage students intrinsically in the learning process and includes tasks to improve reading, writing, speaking, and listening skills, as well as intercultural awareness and digital literacies (*see* endnotes for project development and results). [9]

Conclusion

Since education could not be halted due to the health crisis provoked by COVID-19, educators needed to identify ways to maintain quality teaching and learning outside of the traditional classroom setting. Indeed, moving towards ERT/online education requires a continuous review of our teaching and assessment practices and we must redesign courses including innovative instructional learning methods to create a learning experience that fosters language competence, learners' autonomy, interaction, collaboration, and cultural awareness.

Therefore, to adequately transition to ERT, institutions need to make sure internet access is available to each university member – students, and staff alike. Also imperative to the successful implementation of ERT are provisions for training teachers beyond technological skills to improve teaching and learning opportunities, maintain quality standards, design online assessments, and avoid creating any kind of social divide. According to Hampel and Stickler (2005), "preparing teachers for this learning system is essential, considering that efforts and the cost of creating materials online can be wasted without adequate training and support" (321). The implementation of ERT should take place in progressive phases, gradually motivating the students to access the courses, revise learning materials, and above all, collaborate, and interact with each other and their instructor.

The strategies and approaches adopted by the educators in the Spanish courses SPAN1001, SPAN1002, SPAN2501 and SPAN2502 during the last two semesters, and the current one, have been essentially student-centred and they have promoted participation guided by the synchronous presence of the educator. This presence was essential to ensure inclusion and build social interaction. In addition, collaborative practices have been central, and they have spurred the redesign of the course, both in synchronous and asynchronous delivery modes.

However, the results show that participation was not fully achieved in the first-year courses, SPAN1001 and SPAN1002. One possible reason is that the students did not know their peers and educator prior to the beginning of the course and so

a sense of community was more difficult to build. This was likely compounded by the fact that often, many students refused to switch on their cameras. Secondly, not all students were familiar with inverted classroom approaches and/or with the necessary autonomy required to work asynchronously. This resulted in a lack of real-time participation since many students did not do the preliminary work which led to a weak understanding of concepts and poor development of language skills. In addition, this affected the dynamics of the group although information was clear on the platform and tutors were constantly interacting and sharing information. Consequently, some first-year students felt lost.

On the other hand, second-year students benefited greatly from advantages of the online mode – that is, individualised and timely feedback, flexible times, availability of virtual class recordings, interactive activities, Wikis, etc. – and they adopted the changes easily. The highest evaluated comment was the timely individual feedback received and the way in which having it helped them to improve their writing skills. However, although asynchronous instruction has proved to be more flexible and gives more accessibility to the students, as it promotes critical thinking, reflection, and improves writing skills, many prefer working in real time sessions. Therefore, the balance between asynchronous and synchronous classrooms was appreciated by the students.

Furthermore, the focus on collaboration and reflection has been essential. Students from both first- and second-year groups positively evaluated the teamwork and the guided reflective tasks. The social process of writing allowed students to learn from each other, not only improving their writing skills but also their critical thinking. SPAN1001, SPAN1002, SPAN2501 and SPAN2502 students reached agreements and co-produced and co-authored the work, sharing weaknesses and strengths. Reflection, on the other hand, encouraged self-assessment and revision of what they had learnt and how they had learnt it. By doing it individually and collaboratively, always under the guidance of the instructor, they exchanged different strategies and methodologies and also gained an understanding of what they were learning and how.

Finally, the use of Virtual Intercultural Exchange (VIE) during the second semester 2020-2021, developed learners' autonomy, linguistic accuracy, intercultural awareness and digital literacy. In addition, the multimodal and socio-constructivist project, enriched by gamification, improved students' self-confidence. Indeed, the students of SPAN2502 stated that the timely feedback and the Virtual Intercultural Exchange were highly appreciated. This was not only stated in their

responses to the questionnaires but also observed in their class participation after the project.

In conclusion, this analysis calls for the continuous review of our own teaching practices and the redesign of instructional models that incorporate a broader use of technology while trying to provide practical alternatives to overcome possible challenges. If this is achieved, we will be better able to equip students of foreign languages with the necessary skills to perform successfully in a global context which very often presents unforeseen challenges such as those resulting from the COVID-19 pandemic.

Notes

1. During the ERT, we have employed a variety of online sources – apps, platforms, etc. These resources can be downloaded and installed on PC's and mobile phones:
   Aegisup: a free open-source cross-platform subtitle editing programme.
   BBC: a virtual classroom solution to power online teaching and video conferencing (a version is included within the OurVlE platform).
   Canvas: a course management system that supports online teaching and learning and allows posting of videos, texts, grades, assignments, etc.
   Duolingo: free language learning platform designed like a game.
   Flipgrid: a free education focused platform to create and share short videos and texts.
   H5P: a free open-source collaborative framework to create, share and reuse interactive content.
   Kahoot: a game-based learning platform.
   Lyricstraining: a free website to learn and improve foreign language skills through music videos and song lyrics. It also has a special karaoke function that allows users to sing and enjoy while learning.
   Mentimeter: software to create interactive presentations, lectures, and workshops.
   Padlet: A web app that allows users access to content and post notes on a digital wall including images, links, and videos. It is available for almost any internet device.
   Pickerwheel: an online resource for teaching that allows for random choices, etc.
   Tandem: free language exchange application to find online a target native language speaking partner.
   Zoom: a cloud-based video conferencing service you can use to meet virtually with others.

2. In an ideal world, online courses should be developed and delivered under the peer review of a group involving educators, instructors, designers, e-learning media developers, and graphic designers, which means a considerable institutional investment. In ERT, most of the courses are designed, developed and delivered by the teacher, who has been left without a team of support. Thus, institutions should be aware of the teacher's role in such critical times.
3. Easton divides these skills into six categories: interaction – involving discussions, timely feedback, peer learning, advice, and counsel – management – monitor, evaluate, performance, allow presentations, support services, etc. –, organization – set clear learning outcomes, objectives, rubrics, organize materials and activities, identify learning styles, needs, present materials, and activities, etc. – technological competent manner use – content matter and teamwork technical, support and collaboration with a team.
4.

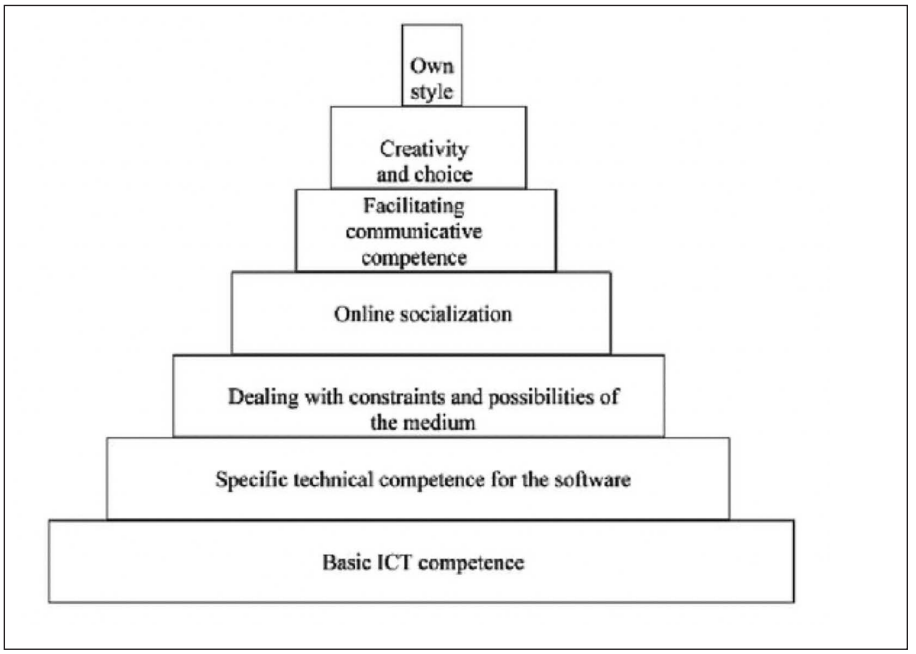


Figure. Skills pyramid (Hampel and Stickler 2005)

Hampel and Stickler divide the teacher levels, identifying the skills for each group – technological skills, pedagogical skills, and evaluation skills. However, their pyramid of skills from lower to higher levels seems too strict as many of the abilities overlap across levels.

5. Proposed assessment scheme for courses SPAN1001-1002 and SPAN2501-2502 online to be changed from 50% coursework and 50% examination to 100% formative assessment and accumulative assessment.

SPAN1001-1002 Language IA–B	**In-Course (60%):** 10% x 2 In-course quizzes including reading comprehension tasks, grammar, and essay writing. This takes the form of multiple choice, embedded answers, true/false, short answers, and essay writing. **In-course Listening comprehension quiz (5%) In-course oral practice via Zoom. BBC or WhatsApp as alternative** (5%) **Coursework:** Reflective diary, interactive activities and/or Collaborative writing Wiki/Google Doc/Blog (10%). **Individual oral test via Zoom/ BBC/WhatsApp:** (15%)	**Final Assessment (40%): Listening Comprehension Quiz** (audio or video authentic material Delivered in OurVLE container as quiz with multiple choice, short answers, True/false (15%) **Written and Oral Assessment (25%)** Listening Quizzes to be completed within 45 minutes once opened. Written examination to be completed within 2 hours will be open for a period of 24 hours (48 hours on certain occasions) and 5 minutes oral questions.
SPAN2501-2502 Spanish Language 2A–B	**In-course (60%):** **Course work 10%.** This may include: Blogs, Audiovisual presentations, Collaborative writing, portfolio, reflective diary and/or interactive activities. **Telecollaboration project: 10% Reading comprehension quiz 15%. In-course listening comprehension quiz 5% In-course oral presentation/podcast 5% Final in-course oral expression synchronous 15%**	**Final assessment (40%):** **Listening Comprehension quiz 15%. The final assessment has written and oral component. Comparative grammar quiz 10%, written essay 10% and oral component 5%.** Time limits to submit in-course quiz and essay: one (1) hour and thirty (30) minutes. Open for 2 days. Listening quizzes opened for 24 hours to complete and to be submitted between 20 and 45 minutes. Written final assessment open for two (2) days and submitted within 2 hours and the oral components via Zoom or WhatsApp in allocated times (10 minutes) within 3 days.

6. The courses SPAN1001- SPAN1002 objectives are comparable with CEFR B1 level. The functional and linguistic aims set for SPAN2501-2502 are comparable with CEFR B2 level.
7. The main ideas conveyed by students through the reflective diaries included:
   - A feeling that their point of view was acknowledged.
   - The feedback was provided in a timely manner.
   - They could identify concepts learned and they could apply knowledge.
   - Reflection helped them to clarify concepts.

8. The project has been an initiative undertaken by individual facilitators. In this case, Dr. Maite Villoria, coordinator of the Spanish Section at DMLL and coordinator of the courses, has been working together with Miss Vanessa Arias (MA student at the University of Barcelona, to implement virtual intercultural exchange. The project will connect 12 UWI students of second year Spanish Language SPAN2502 with their international partners, four (4) Spanish as Foreign Language (ELE – Español como Lengua Extranjera) at the Universidad de Caldas, Colombia. The Project is part of a Master's Research Thesis (Trabajo de Final de Grado in ELE (Formación de Profesores de Español como Lengua Extranjera) at Universidad de Barcelona, Spain.
9. To prepare for the telecollaboration, teachers from both universities were in regular communication for over a month to structure the project which involves four synchronous two-hour meetings and activities covering reading, writing, speaking, and listening skills as well as critical thinking and intercultural awareness. The project, *Cross-cultural stereotypes*, was designed by Miss Vanessa Arias, MA student of ELE at the University of Barcelona, and currently associated with the Universidad de Caldas and Dr. Maite Villoria, Lecturer of Spanish at the University of the West Indies. The schedule follows three steps:

   First step: "Getting to know you". This is an introductory phase in which students will be exchanging personal information. This is a conversational encounter in which there is little negotiation of meaning.

   Before their first meeting, students will receive a questionnaire in which they will be asked about their motivations to learn a foreign language and what they expect from this exercise. In the same communication, there will be the project scheme, information about the first activity, instructions on the apps to be used, and the assigned group for each student**.**

   Activity 1: Each student will elaborate a two to three (2-3) minute video presentation using *Flipgrid* in which they will introduce themselves – name, age, degree course, and reason(s) for studying Spanish – and identify three (3) aspects of Colombian culture. The video will be available to all students, and each student is required to watch at least the videos uploaded by the members of their group.

   Students would have all videos uploaded before the first meeting. During the first synchronous two-hour meeting in Zoom, students will introduce each other and meet their international partners. Then, in groups of four (4) students, Jamaican and Colombian, they are placed in a breakout room to carry out guided activities using Spanish to communicate.

   Activity 2: Via *Padlet* they will read a journal article about Eddie White, an Australian artist who drew stereotypical images of women from Medellin (Colombia). They will comment on the article in *Padlet* columns next to the text and their comments will be available to the whole group, opening a written debate in which

they would write on questions such as: why were Colombian women upset about the drawing? Etc.

Activity 3: Through Kahoot, students will play True/False games designed by the teachers in which they will be asked about Colombian culture – Colombian students will be giving their feedback to the game and they will comment on possible misconceptions.

Activity 4: (only Jamaican students) The previous activity will lead to their individual and asynchronous assignment – written 300 words essay in *Padlet* on how their previous views have been challenged, what other aspects they have learned about Colombian culture and identity, their opinion on stereotypes. The essays will be peer reviewed and they will also receive comments from Dr. Villoria.

Second step: "Comparative analyses". In this second phase, the information shared will go a step further and students will be comparing and analyzing cultural products of their own cultures – music, food, folklore and traditions, newspapers, stereotypes, etc. This task will require providing their partners with explanations of the cultural significance of certain cultural products and practices – stereotypes in this case, engaging in a dialogue to establish similarities or differences between the two cultures.

To achieve the second step all students will meet two hours synchronously for a second time via Zoom, synchronously to be divided into their small groups.

Activity 5: Jamaican students will link the perspectives seen previously about stereotypes to their country, asking Colombian students to identify aspects of the Jamaican culture and explain how Jamaica is perceived abroad. Jamaican students will respond in Spanish, challenging stereotypes, and giving cultural information.

Activity 6: Using Spanish Jamaican students will describe Colombia using 3 words and vice versa, and responses will be analyzed through *Mentimeter*. The teacher will analyze the responses and the map will show whether changes in perspective have taken place.

Activity 7: Students will play *Pickerwheel* with 5 questions about Jamaica – what it means to be Jamaican, characteristics that define you as Jamaican, etc.

Activity 8: (only Colombian students) write an individual 300 words essay on one of the aspects they have learned about Jamaica. The meetings are monitored by Vanessa Arias and Maite Villoria, who will be entering the breakout rooms on Zoom.

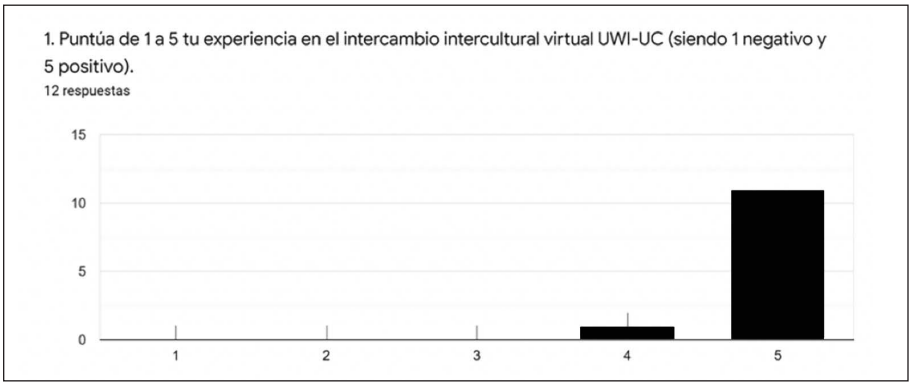
Third and Final step: "Collaborative product". In this last phase, students will work together with their international partners to develop a project or create an activity in which they have to share and compare information as well as co-produce a video presentation, blog, podcast, etc. The project findings will be presented orally to the class and also in writing.

During the third synchronous two-hour meeting, students will work together to produce a final video presentation which will be presented in the fourth and last

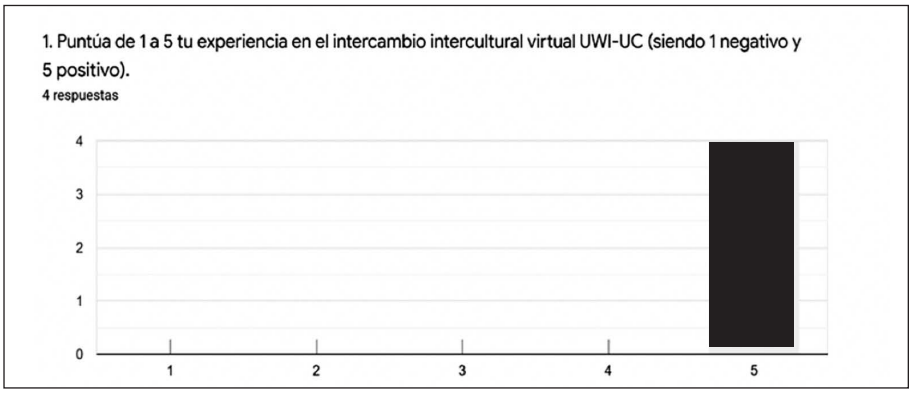
meeting. Students will share their views on the virtual intercultural exchange and complete a final questionnaire.

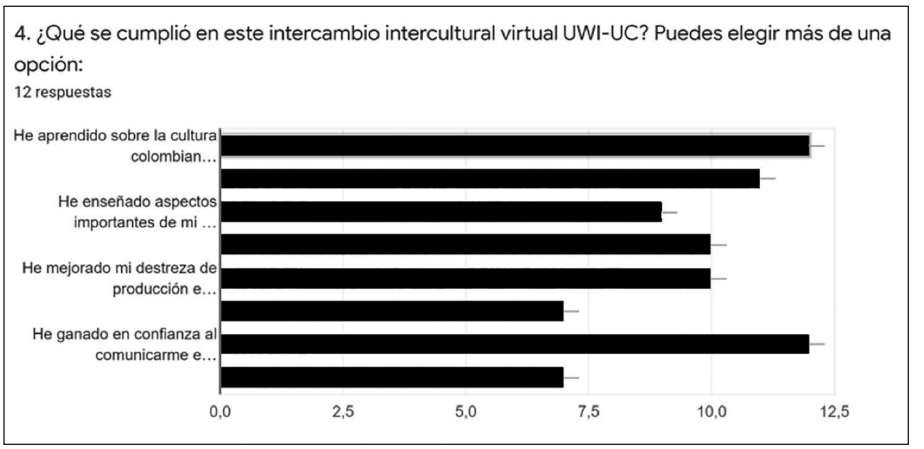
Having finalised the task, the results of the questionnaires (12/12) are as follows:

Jamaican Students



Colombian Students





Students' answers stated that they would repeat the experience as they had not only gained self-confidence but also improved their oral and writing skills as well as digital competence. Amongst their comments it was stated that they valued the experience of learning the language within its context and the awareness of the need to learn the culture as it is the cradle of the language. They also pointed out that they have learned to debunk stereotypes and generalisations. Another positive aspect of the intercultural collaboration has been the interaction. All students would recommend this learning approach.

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Redesigning Higher Education

Expanding Access during a Pandemic and Beyond

LYN R. KEITH

Abstract

It is undisputed that higher education, both regionally and internationally, has faced severe disruption in the face of the COVID-19 pandemic. This disruption affected aspects of university life such as admissions and enrolment, the operations of teaching and research laboratories, university accommodation, sporting activities, and students' overall well-being – all resulting in financial implications for these institutions. While higher education institutions (HEIs) in the Caribbean have weathered the COVID-19 storm's initial phase, unfortunately this transition to online learning is not enough for the continued survival of higher education institutions. This conceptual paper cautions higher education leaders against investing an inordinate amount of time responding to the immediate challenges of COVID-19 at the expense of planning for the long term. While the effects of the disruption are uncontested, the current crisis also creates opportunities for these institutions to redesign themselves (agility) and reconsider their business strategies as they contemplate the question of access. More critically, these institutions must now consider how they can provide for the new customer market segments, the changing nature of work, and resultant workforce development requirements in the age of the Fourth Industrial Revolution (4IR) (alignment). University leaders should use what they are learning in crisis to position their institutions for the most significant impact in the decades to come. A systematic review of the literature informs this writing as it examines the re-imagination of higher education in a post-COVID-19 dispensation.

Keywords: COVID-19, Fourth Industrial Revolution (4IR), higher education

Introduction

AS THE WORLD BECOMES INCREASINGLY INTERCONNECTED, SO ARE the risks that we face. The word 'pandemic' underscores the global reach of COVID-19. It spanned international borders, affected people regardless of nationality, level of education, income or gender (United Nations 2020a). COVID-19 has disproportionately impacted the most vulnerable in society (United Nations 2020b). In education, this trend is no different. Like their global counterparts, Caribbean higher education administrators did not shape regional higher education institutions (HEIs) to deal with extended shutdowns like those which emerged in response to the COVID-19 pandemic (International Association of Universities 2020). The pandemic resulted in a transition to working and learning in remote environments. With COVID-19 as a catalyst, lecturers, administrators, and staff have rapidly engaged in a paradigm shift that they would have otherwise carried out over the next decade. It also spirited an internal shift in institutional structures and has opened dialogue regarding the implications *for* and the future *of* higher education (HE) (Hillman 2020).

In this current dispensation, the stakes are higher as universities are now being called upon to re-engineer, redesign, and transform their business processes. Higher education administrators must situate this re-engineering process within the context of the changing student expectations and the increasing need for widening access. Our inability to reference crises of similar global magnitude makes it difficult to predict what may happen in the immediate future. Though this conceptual paper may be considered future-gazing, its intention is to direct higher education administrators to the opportunities this current dispensation presents for equity and access prospects. This conceptual paper is multi-disciplinary, focusing on sociology, business, education, information technology, and marketing. The discourse builds upon various insights that researchers and proponents have undertaken in their respective fields to link work across disciplines, provide multi-level insights, and broaden our thinking scope. The discussion that follows adopts a problem-focused approach and addresses the "What is new?" question thoroughly. This approach identifies opportunities over challenges, value-added propositions, and highlights new pathways for future universities.

This paper first discusses the impact of COVID-19 on higher education. It then identifies how these new challenges converge with existing challenges. Third, it discusses HEIs' immediate response to the COVID -19 pandemic. Next, through

detailed examples, I discuss how opportunities for widening access through new market segments can be achieved and reinforces why it is imperative. Finally, the paper concludes by emphasising the critical role of regional HEIs in the current context of the Coronavirus pandemic's socio-economic challenges, responding to changing students' needs, the changing world of work, and the corresponding regional workforce development needs.

Conceptual Framework

HEIs in the Caribbean have weathered this storm's initial phase by transitioning courses and programmes to remote delivery and providing the appropriate student support and resources during this era. However, these institutions must now contemplate their future in a post-COVID-19 dispensation. Unfortunately, the transition to online learning is not enough for the continued survival of HEIs. This conceptual paper cautions HE leaders against investing an inordinate amount of time responding to the immediate challenges of COVID-19 at the expense of planning for the long term. While the effects of the disruption are uncontested, the current crisis also creates opportunities for these institutions to redesign themselves (**agility**) and reconsider their business strategies as they contemplate the question of **access**. More critically, these institutions must consider how they can provide for the new customer market segments or the changing market demographics that have emerged in response to this pandemic and its corollaries. Specifically, institutions need to address the economic disruption, the changing nature of work, and the resultant workforce development requirements in the age of the Fourth Industrial Revolution (4IR) (**alignment**) – that term from the global crisis. *Agility, Access,* and *Alignment* are critical pillars of the *Strategic Plan 2017–2022* of one of the stalwarts in HE in the Caribbean, The University of the West Indies (The UWI).

For this discourse, higher education, also known as tertiary education in some countries, refers to "all post-secondary education, including public and private universities, colleges, technical training institutes, and vocational schools" (The World Bank 2017). Tewarie (2010) extends this definition to include technical and vocational education. In the Anglophone Caribbean, The UWI leads the higher education sector. Compared to national universities, The UWI exercises more flexibility as, "it has a broader governance structure that prevents it from being subjected to a particular jurisdictional power" and it "is positioned to benefit from

economies of scale and scope while ensuring subsidiarity and complementarity" (The University of the West Indies 2012, 16). At the time of his writing, Tewarie (2010) noted that of the 150 HEIs in the region, 60 per cent are public, 30 per cent private, and the remaining 10 per cent exist with some government support. Tertiary education in the Caribbean remains mainly the remit of governments (Howe 2003). On the other hand, private institutions operate as demand-driven, for-profit institutions that service specific niches in their respective territories (Tewarie 2010).

Impact of COVID-19 on HE

The COVID-19 virus upended HE's world and presented a massive economic hit to HE in the region. In March of 2020, students (locally, regionally, and internationally), were sent home. Classrooms and lecture theatres stood empty; dormitories became unoccupied. Traditional college and university events such as student guild and hall activities, conferences, graduations, and sporting activities were all cancelled. Administrators scrambled to prepare for the unexpected. Teaching and learning immediately transitioned to an online mode in response to governments' physical distancing measures.

In some cases, this move occurred within hours. For many institutions, this was a formidable challenge with considerations for shortcomings, such as the loss of experiential and hands-on-learning, quality issues associated with teaching, technical difficulties as both teaching staff and students transitioned to the online teaching platforms, and bandwidth capacity issues (International Institute for Higher Education in Latin America and the Caribbean 2020; Li and Lalani, 2020; Loukkola 2020; PricewaterhouseCoopers 2015; Times Higher Education 2020; University World News 2020). The realities of domestic life for staff and students further strained the move to online. The financial health of these institutions was also an obvious concern. The anticipated fall in student enrolment is likely to be painful, forcing many institutions to engage in the process of deeper inflexion. While most of the HEIs in the region are supported by their governments and/or are regionally funded, much of the financial concerns focused on the potential loss of their primary customer base along with losses in revenue generated from accommodation, catering, consulting, and conferencing.

Aside from the disruption to their social life, students have experienced the most immediate impact from the temporary cessation of face-to-face teaching

at HEIs, particularly undergraduates and those about to finish upper secondary school and aspiring to enter higher education. Students have no clear indication of how long this disruption will last vis-à-vis the immediate impact on daily life, the costs incurred, the financial burdens, the learning continuity, and regional and international mobility. For many students, the reality is resigning themselves to limited education, wasted finances, and ongoing health risks, at least for the next two years in the first instance (Bruner 2020). Distance learning requires a high level of organisation from students to achieve acceptable standards and prevent dropout (Gorbunovs, Kapenieks, and Cakula 2016). Challenges include access to technology, internet access, establishing a study routine, managing distractions, and the absence of a specific place to study (Gorbunovs, Kapenieks, and Cakula 2016; Indiana University 2018).

A review of the literature indicates that students have become increasingly worried about the Coronavirus's impact on their finances (Bolton and Hubble 2020; Top Universities 2020). These concerns extend to an overall reduction in income, making rent payments, increased worries about employability after graduation, and concerns about the utility of the continued payment of full tuition fees. Students are revisiting the return on investment (ROI) of higher education with some urgency in a period of increased unemployment and uncertainty. Students have now been spending more time (not less) at home due to closures of dorms, online classes, and stay-at-home orders (Boyd 2020). Socialising during the pandemic has been limited to virtual encounters or small groups and constant vigilance surrounding social distancing. Absent are the opportunities for impromptu gatherings in dorms and cafeterias or participating in social events on campus that serve as stress relievers for many students. Social distancing practices will restrict how students socialise and seek informal support.

For Caribbean HEIs, this disruption occurred against the backdrop of broader economic and social upheaval – an impact that is second to none. Although physical distancing and quarantine measures remain critical to reducing the virus' spread, the economic uncertainty associated with those measures provided a significant economic counterweight, particularly for economies in the Caribbean whose business transactions relied primarily on face-to-face interactions. In the case of tourism, for instance, the Caribbean is the most severely hit by the paralysis of travel. Governments are recording job losses at unprecedented rates in tourism and its downstream sectors. Classified as small island developing states (SIDS), the region's territories are highly vulnerable to external and inter-

nal economic shocks. These economic challenges exist against the backdrop of balance-of-payments constraints, recurrent exchange-rate and debt crises, low growth, poverty, and heightened vulnerability to climate change and natural disasters (United Nations 2020).

Both commodity and tourism-dependent countries showed considerable prevalence of job losses in households earning below the minimum wage in January 2020. A similar pattern, although less pronounced, is observed for the incidence of business closures. The diaspora is also affected and unable to provide remittances (Caribbean Association of Banks 2020). A review of the social implications reveals that the pandemic has impacted particular population segments, such as those living in, or vulnerable to poverty. Other groups impacted include people working in more exposed activities, women, children, adolescents, the elderly, those with disabilities, migrants, and the homeless (Bogdan 2013). The youth, specifically Gen Z, will also be severely impacted as the temporary, part-time, or unprotected jobs in informal conditions, which young people tend to have, are the most affected by the deterioration of the economy (International Labour Organization 2020a). The implication for this group to access higher education will be revisited later in this discussion.

Challenges Presented by COVID-19 on Higher Education

The challenges presented by the COVID-19 pandemic also compound the existing challenges faced by HEIs in the region, with economic security being the primary concern. Decades of socioeconomic struggles by regional governments have fuelled ongoing conversations and criticisms about higher education's role beyond its teaching and research remit and its contribution to developing knowledge economies and democratic societies (The World Bank 2002). The trends influencing higher education financing outlined by Marcucci and Johnstone (2007) remain relevant in the Caribbean. These trends include the rising unit costs of instruction, increasing enrolments, and declining governmental funding.

The Fourth Industrial Revolution (4IR) is an extension of its predecessor, the digital revolution, and focuses on smart technology, artificial intelligence, and robotics; all of which now impact our everyday lives. The implication of this revolution for business, industry, and the workforce in general, are extensive. The most obvious relates to how the nature of work and the job market are changing. The Inter-American Development Bank (2019) projected that occupations related

to the digital economy (such as computer science specialists) or services (such as food service professionals) are among the fastest-growing occupations in Latin America and the Caribbean. There is also an increasing demand for advanced digital skills – web and software development, knowledge of data storage technologies, or mobile application development.

In the age of innovation and knowledge-driven growth, universities as the generators of knowledge and hosts to knowledge repositories are central to this growth paradigm. A society's ability to produce, select, adapt, commercialise, and use knowledge is critical for sustained economic growth and improved living standards (The World Bank 2002, 7). It is against this context that universities deemed as developmental universities are even more critical and instrumental in leading the way or partnering in the search for new and innovative economic sectors and/or facilitating the transformation of old sectors (Beckles 2020).

In terms of building the human capital stock, the Caribbean has recorded the lowest enrolment in HE in the hemisphere within the relevant age cohort, 18–30 years (Beckles 2020). Its enrolment rates currently hover at less than 25 per cent against a North American average of near 60 per cent and Latin America approaching 45 per cent (Beckles 2020). There is no doubt that the pandemic has resulted in enrolment figures that are much more discouraging. These challenges undoubtedly paint a dismal view of the future of HE in the region. The pandemic has now forced higher education administrators to confront an uncomfortable truth: the current campus model is neither sustainable nor scalable (Kurshan 2020). HEIs are cautioned against fixating on these challenges; they are advised to consider the opportunities for working through these difficulties. Considering these opportunities repositions the future university by exploring opportunities for broader access via new market segments, creating online services that are more efficient and less costly, and the provision of more scalable and skill and career-oriented programmes designed for the online learner.

Immediate COVID-19 Responses by Regional HEIs

As the world contends with the Coronavirus's onslaught, university leaders worldwide engaged in extensive contingency planning efforts to ensure business and educational continuity. To maintain student retention and access, many universities quickly pivoted to offer fully online courses. While some universities may already have had robust online systems, smaller universities and colleges struggled

under the weight of the demand. Similarly, higher education administrators in the region also acted decisively. Following government guidelines, higher education administrators suspended face-to-face teaching, and non-essential facilities on campuses were closed. Regional and international students were shuttled safely to their homes. These initiatives were vital to protect staff and students' safety, health, and well-being (Nurse 2020).

Higher education administrators rapidly transitioned courses and programmes to online delivery. For some, transitioning all programmes online proved to be much more challenging. Traditional exams were abandoned and moved at pace to transform the assessment processes to include digital testing and in some instances, digital proctoring (Nurse 2020; United Nations Children's Fund 2020; United Nations Educational, Scientific and Cultural Organization 2020). Several institutions have begun planning and using virtual webinars and tours to support future student recruitment, admissions, and enrolment process. Higher education administrators disseminated COVID-19 updates and communications to the campus communities. HEIs also instituted student support resources such as virtual library services, online academic advising, telephone and online counselling, and flexible tuition payment plans.

Opportunities for Widening Access

Multiple publications have likened the transition to virtual or remote learning to a tectonic shift. The global experimentation in remote teaching and learning has recorded relative successes for many HEIs in the region (Nurse 2020; United Nations Educational, Scientific and Cultural Organization 2020). This move has changed the concept of education overnight, and digital learning has emerged as a necessary resource for education. Technology has afforded institutions the ability to distribute, create more compact content, and ultimately change access for everyone. As institutions emerge beyond their initial COVID-19 emergency response, they face questions about higher education institutions' fundamental roles in a post-pandemic dispensation.

This paper stands resolute in its position that the successes of remote teaching and learning garnered in this pandemic offer tremendous opportunities for the future of regional HEIs. These opportunities must be identified, planned for, and leveraged, if regional HEIs plan to maintain their global outlook and positioning, address the workforce and skills development gap for the region, and

more importantly, maintain business continuity. However, this paper cautions institutions that this move also requires revision of their business models and, more importantly, addressing the question, "How well do universities understand their future 'customers' whom they exist to serve?" Responding to this question requires a radical approach to business process re-engineering which integrates customer focus, emphasises designing and improving key organisational processes; and in the identification of critical success metrics (Davenport 1994; Grint and Willcocks 1995; Tang and Zairi 1998). For Caribbean HEIs, this may include

- the development of a customer service blueprint centred on digital service delivery;
- improved organisational processes such as
  - a more effortless transfer of documents across departments and campuses via electronic workflows;
  - more contemporary communications technologies that allow users to edit, view and receive messages regarding activities and tasks, retrieve reports, forms and notifications;
  - the ability to populate a series of form fields by extracting information from a database instead of requiring users to input that data;
- leveraging digital opportunities to improve brand differentiation;
- identifying new key performance metrics. These can include financial, student success, admission and enrolment, faculty and staff, and facilities and resources.

The global HE market is now more competitive than ever before. The widespread access to the internet and rapid technological advancements have facilitated an unprecedented degree of global connectedness. Increased connectivity allows for a faster exchange of knowledge, networks, collaborations, and opportunities for internationalisation. For regional HEIs however, it also means that in order to survive, these institutions must become agile in their operations. Academic reputation alone is no longer a good value proposition to attract students. As institutions consider expanded access and reach, they must consider a more agile approach to student recruitment, focused on different segments with personalised content. Traditional indicators such as age, sex, and geography are no longer sufficient for identifying client segments. Administrators must contemplate that

additional factors such as return on investment, career aspiration, career status, financial status, graduating status, and social needs are also critical factors in students' decision-making process. As such, regional institutions can create new and varied segments and customer bases that they must pivot to and respond to as they seek to fulfil their learners' varied aspirations and needs. An appreciation of these segments will, in turn, inform strategic planning and recruitment.

Identifying new customer segments allows regional HEIs to respond to widening access and increases these institutions' ability to recruit larger numbers of students. Even more critical in a COVID-19 dispensation for regional HEIs, is how access will be created and sustained for the non-traditional student. Today, the composition of HE's student population indicates an expanding non-traditional base (CLASP 2015; Hittepole 2019; Hutchins 2020; National Center for Education Statistics 2012). According to a National Center for Education Statistics report, within the next six years, the number of people 35 and older who enrol in college will grow 20 per cent, compared to 13 per cent for the traditional 18- to 24-year-old set (Hussar and Bailey 2017).

The term 'college' or 'university' student is no longer exclusive to the traditional 18- to 24-year-old matriculating directly from high school (Hittepole 2019). The definition of a non-traditional student has been a source of much discussion in the literature. While definitions vary, researchers generally consider non-traditional students to have one or more of the following characteristics: independent for financial aid purposes, having one or more dependents, being a single caregiver, not having a traditional high school diploma, delaying post-secondary enrolment, attending school part-time, and being employed full-time (United States Department of Education 2015). This section will demonstrate, through the use of four examples, how HEIs can achieve broader access through targeted market segmentation by highlighting those segments that face the most vulnerabilities in the current higher education environment. The customer segments discussed below focus on two categories of non-traditional students: the lifelong learner and the displaced worker. This is then followed by the traditional student, as seen through the lens of the new pandemic, and persons with disabilities.

Lifelong learners

When planning for widening access and catering to expanding student demographics, HEIs must plan from the non-traditional student's perspective. Holdsworth

(2011) asserts that "academics must do more to challenge assumptions about who their students are, and be able to cater to those that do not fit the mould". The Commission of the European Communities (2000) defines lifelong learning as an "essential policy for the development of citizenship, social cohesion and employment". It describes a supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetime. Key competencies of lifelong learning include knowledge, skills, and attitudes needed by all for personal fulfilment and development, employability, social inclusion, and active citizenship (European Commission 2018). Before the pandemic, HEIs viewed lifelong learning as an opportunity for participants to increase their work competency, upgrade skills, widen and update knowledge and improve social networking. In essence, it equips people with skills and knowledge that will advance their careers (Mustafa 2017). The discussion below directs the reader to the categories of lifelong learners that must be incorporated into an HEIs expanding access model.

In this current dispensation, lifelong learning can no longer be an opportunity for some. The looming upheaval to the global economic system and sustainable employment as we know it created a renewed role for higher education as it positions itself to align with the societal needs to support sustainable employment through continuous learning. Skills development, retraining, and education are central to economic growth, decent work and wages, equity, inclusion, and social justice (Fore et al. 2020). With the acceleration of the digital transformation of jobs and temporary job losses becoming a permanent feature of our global economic landscape, there is a need for accelerated action around re-skilling, upskilling, and retraining (World Economic Forum 2020). Any movement towards expanding access must incorporate educational reformation in content and delivery for the future workforce. Expanding access involves examining the labour pool based on skills and degrees. In this context, softer skills such as liberal arts, creativity, innovation, customer servicing, emotional intelligence, problem-solving, and empathy, have risen to the top (Fore et al. 2020). As part of its mandate to regional development, higher education must cater for an increasingly dynamic labour market where specific fields experience labour shortages, widening skills gap, and professions are fluid (Zeeman and Cremonini 2020). Central to this is the alignment of regional higher education and the world of work, which undoubtedly filters down to regional work.

It is now essential for these institutions to become both responsive and

scalable. Responsiveness implies that regional HEIs must react to socioeconomic and market demands through the knowledge, skills, and competencies an institution develops in learners. Simultaneously, scalability denotes an institution's capacity to absorb more students (providing equal quality of education) as flexibility increases (Zeeman and Cremonini 2020); all very much in keeping with a global university outlook. In such a context, the pace of change is unpredictable and domain dependent, and continuous re-skilling and alliance with the world of work is necessary. Focused planning from the university must include:

- ensuring access for all;
- developing the right mix of formal and non-formal learning;
- developing flexible degree paths, for example, enabling adults to attain a degree through dual trajectories, modular or stackable learning;
- developing certified, short-term learning opportunities to develop new skills;
- creating synergies and alignment between industry sectors and sub-sectors;
- the development of closing the skills gap accelerator programmes;
- the development of a Caribbean Skills Consortium and Common Taxonomy.

(Mustafa 2017; Stanistreet 2020; Zeeman and Cremonini 2020):

The displaced worker pursuing upskilling or reskilling

In tandem with the COVID-19 recession, automation creates a 'double-disruption' scenario for workers (Tsusaka 2020). The displaced worker represents a new category of student/client for which regional HEIs must now react. The impact of COVID-19 on the displacement of workers in the world labour market is unprecedented. Preliminary data suggests that the quarantine and physical distancing measures have resulted in job losses to the sum of 1.6 million more unemployed persons in 2020 than 2019 (Economic Commission for Latin America and the Caribbean 2020). Similarly, the International Labour Organization (ILO) expects that the workforce will lose 9.9 per cent of working hours during the second fiscal quarter because of the impact of COVID-19 (International Labour Organization 2020b). This magnitude is equivalent to a loss of 1.5 million full-time jobs. These displaced workers are now pursuing retooling and reskilling opportunities. In this unique scenario, we are now witnessing a situation of millions unemployed on the one hand, and a rapidly evolving and increasing skills need on the other.

This pandemic-related disruption, however, must be contextualised within a

more extended history of economic cycles. Before 12 March 2020, the 4IR was already impacting current jobs (World Economic Forum 2016, 2018, 2020). While the job market is well into the 21st century, it is clear that our higher education system cannot fully support this transition. At the turn of the 20th century, the world underwent a significant reconfiguration in the world of work – from an agrarian economy to an industrial economy (West 2019). At that time, it took decades for governments to deal with the effects of this change and foster alignment between workforce skills and the world of work requirements.

Today, we are on the cusp of another transition – from an industrial economy to a digital one (World Economic Forum 2016; West 2019). Central to this new business model is automation and artificial intelligence (AI). The World Economic Forum (2016, 1) noted that "these drivers of transformation currently affecting global industries are expected to significantly impact jobs, ranging from significant job creation to job displacement, and from heightened labour productivity to widening skills gaps". As such, some of the most reliable jobs for people who were unable to benefit from tertiary level education exist in restaurants, factories, retail, and transportation, and these jobs are now being affected by automation. Claudia Coenjaerts, Director of the ILO Decent Work Team and Office for the Caribbean, suggests, "this is also an opportunity to use 'downtime' for building skills for employability" (International Labour Organization 2020).

Regional HEIs must develop a strategy for creating access for the displaced worker, ensuring that they are aware of their option of returning to school. Robert LaLonde of the University of Chicago and Daniel Sullivan of the Federal Reserve Bank of Chicago suggest that retraining through our nations' community colleges is one mechanism of reducing the skills gaps and potentially increase their students' re-employment earnings (The Hamilton Project 2019, 201). An internet search would indicate that many of our best universities, some through collaboration with government and private institutions, have already begun capitalising on these opportunities to create training programmes for displaced workers and pivoting as they learn more about the programme and those undertaking it. Case Studies include The Pittsburg State University, Texas A&M University-Commerce, Central Queensland University, and the University of Wollongong (Pittsburg State University 2020; Rosanes 2020; Texas A&M University-Commerce 2020). In some instances, several universities such as Charles Darwin University (Rosanes 2020) and Massive Open Online Courses (MOOCs) such as Coursera (Boorstin 2020) are rolling out short online courses. Workers who have been furloughed

or lost their jobs during the COVID-19 pandemic can benefit from the heavily subsidised (or free) courses.

As such, this is an opportunity for regional HEIs to offer industry-recognised education, training, and credentials to facilitate dislocated workers' return to work. That said, the experiences of HEIs to date indicate that regional HEIs must first determine how to address dislocated workers' unique needs to encourage their enrolment. Regional HEIs would also need to provide sufficient guidance around appropriate career options and provide support to help them gain the basic skills necessary to succeed (Amour 2020; Noy, Heidkamp, and Manz 2013). These include

- providing flexibility (fast, affordable, and accessible) access to education and training that students require;
- developing a user-centred design approach and developing programmes that deliver education targeted to student needs. Programmes should provide displaced workers with fast, flexible programmes that can get them the skills they require, and the ability to continually return and learn as skills needs change;
- providing more options, like credentials that can be completed more quickly (Amour 2020);
- providing comprehensive information that is readily accessible: information is critical, and as such, displaced workers require more information on the changing skills in their industries, as well as additional information about how to prepare for multiple career paths;
- developing programmes that are of high-quality, lead to employment, and can be stacked with longer-term programmes;
- providing learner support services to assist mature students in using career exploration and assessment tools, offering them information about the local labour market, and identifying courses or programmes that will help them prepare for their careers.

The traditional student: A new lens

This paper asserts that as universities seek to restructure their business models to provide for widened access, they must now consider the changing economic and social realities of their once most secure customer segment. That customer

segment, the traditional student (18–24 years), has been impacted by the effects of the broader global impact of COVID-19 at a crucial time when they are reaching critical milestones in their lives. Millennials, age 26–40 years old, include young and established career professionals who may also be new parents or homeowners. Gen Zs, age 11 to 25 years old, are now beginning to come of age, completing their education, and moving into the workforce (Schmidt 2020). Historical data indicates that youth unemployment rates rise faster during economic recessions than the overall unemployment rate (Schmidt 2020). According to a recent United Nations Children's Fund (UNICEF) report, an estimated 230,000 persons in the Eastern Caribbean are between 18 and 24 (Wood, Nartea, and Bishop 2020). Younger age groups will feel similar economic and employment effects (Wood et al. 2020).

Young persons have focused on essentials like food, housing, and healthcare, while they have relegated activities such as education, transportation, leisure, and recreation as optional. Additional factors such as the digital divide, and budget cuts and disruptions to service delivery, further exacerbate the immediate financial impact of COVID-19 on youths. These challenges are now hampering HEIs from meeting young people's needs (The Commonwealth 2020). Additionally, these challenges further compound this group's already negative perception of higher education's utility and its return on investment (Barber 2020). Regional HEIs will continue to see an increasing number of students become unemployed, contract the illness themselves, or care for family members, along with a series of disappointments around graduations, connections to the community, and uncertain futures (Mull 2020). As regional HEIs seek to cater and appeal to this segment, there are several factors that they must take into consideration (Seemiller and Grace 2016; Selingo 2018):

1. The purpose of higher education for Gen Z is to help launch a career. They will look primarily for academic and co-curricular programmes to develop their skills and prospects.
2. While they expect a high-tech educational and campus experience, they toggle between the real and virtual worlds.
3. They favour a mix of learning environments and activities led by a professor, and additional options to create their blend of independent and group work and experiential opportunities.

Persons with disabilities

The challenges of access for persons with disabilities is one of the most apparent indicators of higher education disparity. Within the context of access to HE, persons with disabilities are often unable to benefit from available options, personalised information, coordination between services, departments, ancillary staff, funding, trained aides, and technical aides (Australian Human Rights Commission 2004). These barriers to participation and success originate from institutions, systems, and processes. In this regard, educational providers play a central role as equalisers in this equation by creating avenues for more inclusivity. The impact of COVID-19 on differently-abled persons and specifically, differently-abled students, is particularly harsh (Enders, Haggstrom, and Lalive 2020; James 2020; Office for Students 2020; Westander 2020).

Differently-abled students face every issue that non-differently-abled students face during this challenging time – job loss, isolation, financial concerns. They also face heightened stressors unique to them, such as ADD/ADHD, eating disorders, learning issues, anxiety, PTSD and more. In the case of a virtual or remote learning higher education experience, HEIs must leverage the advantages and opportunities to reduce the difference between outcomes gaps for differently-abled students and non-differently-abled students just entering the university, continuing with their studies, and performing in their degrees.

For differently-abled students who are also considered vulnerable to the Coronavirus, remote learning is seen as incredibly crucial, reducing the interaction they have with others (James 2020). This accelerated shift to online learning provides opportunities for regional HEIs to address access issues and biases in concentration by providing students with disabilities with more meaningful choices. Critical to this is the expansion of university services to include a more assisted learning approach, an issue that traditional teaching, such as group lectures or seminars, can sometimes struggle to achieve. These include specific support such as online stenotyping services, recorded lectures, and inclusive assessments related to online teaching for students with all kind of vulnerabilities.

Conclusion

In the wake of extreme economic uncertainty, and with many colleges and universities transitioning to virtual learning, the rippling effects of the Coronavirus

pandemic have sent unprecedented shocks through the higher education system. In addition to the onslaught of the COVID-19 pandemic, we have also seen the rapid acceleration of three significant global forces: deglobalisation, digitisation, and corporate consolidation all converged to influence global finance's rapid shift, the world of work, and changing consumer behaviour. This competitive environment has forced many HEIs to choose strategies to enhance organisational effectiveness and efficiency. Regional HEIs are mandated to retool, reposition, and accelerate their responses to both the upending of industries in the aftermath of the COVID-19 crisis, and the acceleration of the 4IR and its impact on the work of world.

This re-engineering process becomes even more critical for regional HEIs and their nuanced developmental role within the region. While universities will not solve the profound socioeconomic impacts of the Coronavirus pandemic on their own, through collaboration, they can work with governments and businesses to help address the crisis through evidence-informed policy and practice, retraining and retooling people towards economic recovery.

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Turning Conventional Teacher Education Clinical Practice Assessment on its Head

A COVID-19 Inspired Response to Practicum Assessment

DIAN McCALLUM

Abstract

Teacher education, like any other professional preparation programme, requires that its candidates be engaged in authentic learning and assessment experiences that represent what they will do when they enter the real world of practice while gauging their level of readiness for the field. This paper examines the use of two strategies already available to us as a part of our pedagogical toolkit in teacher education programmes – microteaching and demonstration teaching – which were co-opted as our 'remote emergency response' to the need for an alternative approach to the assessment of the practicum following the closure of schools due to the COVID-19 pandemic. The use of these taken-for-granted and sometimes misunderstood pedagogical tools allowed me to critically revisit and rediscover their purposes, potentials, and possibilities as assessment strategies in the practicum. The paper concludes with a recommendation for diversifying the methods used for assessing the various competencies targeted in the practicum.

Keywords: teacher education, practicum assessment, pedagogical strategies

Introduction

OVER THE PAST FOUR DECADES, TEACHER EDUCATION HAS changed as a consequence of the reform efforts that were directed at strengthening the knowledge base of professional practice (Shulman [1987] 2004; Darling-Hammond and Snowden 2005). These efforts were part of a larger and unrelenting move to improve the professional status of teaching by first targeting teacher education where the formal process of becoming a teacher begins. Significant changes have been made to both the conceptual and structural framework of teacher education programmes in order to address the many shortcomings which were manifest in teacher preparation. Chief among the problems was the perceived and real disconnect between theoretical and practical preparation. There was a need, for instance, to ensure that the learning and assessment experiences of prospective teachers were both authentic and substantial.

Among the many critiques of traditional teacher education were those related to the length and sequencing of the student teaching experience which, in a few colleges was confined to last for "six or eight weeks for one-half a day" while very often being the last of the courses to be taken by students (Cronin 1983, 182). The lack of coherence among the different courses across programmes, exemplified by the lack of a strong link between theory and practical experiences (Feiman-Nemser 2001), and the overly theoretical nature of programmes (Hammerness et al. 2005) were other shortcomings commonly cited in the literature. The investigations into teacher education carried out by Garry Hogan served to confirm these and other earlier critiques, leading him to conclude that programmes were structurally 'disjoined and disparate' (Hogan 2002, 2004, 2005, cited in Loughran 2006).

It was against this background of wide-ranging criticism of teacher education programmes that the reform initiatives of the late 1980s and thereafter were undertaken (Cochran-Smith and Fries 2005; Darling-Hammond and Snowden 2005). They were aimed at removing the various structural weaknesses identified, thereby building both conceptual and structural coherence among all components of such programmes. In our local university context, we were not left unaffected by the changes that were taking place at the international level. While we took note of the developments and incorporated new ideas into our course content, the structure of the programmes remained intact. As such, a comprehensive review of the practicum component of the undergraduate three-year teacher education

programme was undertaken and completed between the academic years 2014/2015 and 2016/2017. It was in the practicum, its organisation and implementation that some of the weaknesses expressed about teacher education programmes were most evident. These included the inadequate linkages across academic, professional and foundational or core educational courses, and between course work and field experiences. The field experience was therefore the component most in need of change as it was not effectively "organized around an explicit and thoughtful mission and conceptual framework" (Feiman-Nemser 2001, 1021).

The revised practicum component was in the third year of its implementation when the COVID-19 pandemic led to the closure of schools. This caused a further re-examination of the purposes of the practicum in the overall preparation and assessment of student teachers occasioned by their inability to engage in the face-to-face practicum after March 2020. The assessment exercises could not be undertaken in the conventional sense. The assessment of the practicum component was subsequently carried out using traditional pedagogical strategies, microteaching and demonstration teaching, which were not only repurposed to serve as assessment tools but to be used under remote emergency conditions, utilising a blend of synchronous and asynchronous methods. The search for an alternative to the assessment of the practicum highlighted the need to reconsider how student teachers' practical pedagogical development could be better facilitated and assessed on a continuum and through the in-house practical and school-based experiences.

Statement of Purpose

The specific focus of this paper is on the practicum component of teacher education which is widely regarded as that critical or core element of teacher education where the practice of teaching takes place and is assessed in the physical and social settings of schools and classrooms. The paper takes a contemplative look at how the changes which COVID-19 precipitated in the assessment phase of the course "Initial School Based Experience: The Practicum", have led to a reconsideration of the way in which the practicum is conventionally assessed in the programme. While the situation created a challenge, it provided the opportunity for the School of Education (SOE), at The University of the West Indies, Mona Campus, to revisit two longstanding but variously used and understood pedagogical strategies to complete the assessment of the field experience component of the course which

also includes a teacher portfolio with entries linked to the practicum experience.

In outlining the different assessment options that were considered before arriving at the final iteration of the alternative assessment developed for the practicum component, this paper examines and reflects on microteaching and demonstration teaching as additional assessment tools in the overall assessment of the practicum. The central questions to be addressed are

1. What are the purposes, potentials and possibilities of microteaching and demonstration teaching as additional assessment strategies for the practicum?
2. What specific teaching competencies should they target in order to provide a more holistic picture of student teachers' professional learning at the point of assessment?

Unpacking the Role of the Practicum in the Curriculum of Teacher Education

Student teaching has been the mainstay of teacher education from its origin in normal schools. It remains a feature of teacher preparation programmes as normal schools morphed into teachers' colleges and as colleges were absorbed into universities (Labaree 2008; Smith and Lev-Ari 2005). These structural changes were accompanied by a shift in emphasis from a focus on practical preparation, typical of the normal schools and colleges, to a focus on theory when teacher preparation became a part of higher education (Smith and Lev-Ari 2005).

As it is currently organised and conceptualised across teacher education programmes and contexts, the practicum is the place for prospective teachers to interact with students and to practice the teaching skills learnt in their professional courses, integrated with the content knowledge garnered over time but significantly expanded from their academic courses. The practicum is also the place where prospective teachers' knowledge of learners and the learning process will gradually inform their overall pedagogy which, when it integrates the content and pedagogical skills, is referred to as pedagogical content knowledge, a term coined by Lee Shulman ([1987] 2004). These skills can only be effectively developed over time in relation to the content being taught and in consideration of the strategies used to foster learning and to gain and maintain students' attention while managing their classroom behaviours. If these are the chief elements of theoretical preparation, it means that the practicum is the place for these knowledge, skills,

understandings, and overall teaching competencies to be demonstrated through actual practice.

Zeichner (1996) pointed to research that "has clearly shown that field experiences are important occasions for teacher learning rather than mere times for teacher candidates to demonstrate or apply things previously learned" (cited in Zeichner 2010, 484). The research evidence accumulated over time about the field experience as an important site of teacher learning, has led some teacher educators to suggest that ". . . clinical experiences should be the central focus of pre-service teacher education from which everything else in a program emanates" (Turney et al. 1985; Ball and Forzani 2009, cited in Zeichner 2010, 484–485).

The relevance of the field experience is frequently echoed by student teachers, often cited in the research literature as rating ". . . their student experience as the single most beneficial and worthwhile segment of their teacher education programme" (Griffith 2004/5, 52). Myers and Simpson (1998) confirm the real significance of the practicum as the site for learning about teaching in remarking that ". . . much of what teachers learn about teaching is 'by teaching and from teaching'" (cited in Loughran 2006, 30). The relevance attached to the field experience is further evidenced in Hollins and Guzman's (2005) observation that

> Field experiences have long been identified by both teacher educators and prospective and experienced teachers as a major, if not the most important, part of preservice teacher preparation. It is broadly assumed that field experiences are the key components of preparation where prospective teachers learn to bridge theory and practice, work with colleagues and families, and develop pedagogical and curricular strategies for meeting the learning needs of a diverse population. (493)

A Revised and Restructured Practicum Programme: The Mona Model

Though the field experience is often lauded for its significance in the learning-to-teach process, it is also that element of teacher education that has been consistently criticised in relation to its organisation and implementation. Lack of uniformity in how schools and teachers contribute to the learning-to-teach experience of prospective teachers is also a common weakness across programmes, irrespective of the context. The initial teacher education undergraduate programme offered by the School of Education, The UWI, Mona Campus, was similarly beset by organisational and conceptual shortcomings which stimulated a review of the

practicum component commencing in the academic year 2014/2015. This review was completed and implemented by the academic year 2017/2018 and accomplished the twin goals of keeping abreast with developments taking place at the international level in teacher education programmes while introducing well-needed changes in the overall programme structure.

The changes were designed to produce a more robust and well-coordinated practicum which would not only articulate with local standards of practice as outlined by the University Council of Jamaica (UCJ) but also respond to the conceptual and structural changes which were taking place in teacher education programmes worldwide. The rationale provided in the School of Education's (2017) programme proposal captured the local readiness and global reach of the revised practicum:

> The Bachelor of Education Programme is designed to prepare initial teacher education students for the contemporary 21st century classroom and is intended to provide professionally prepared teachers for the Jamaican classroom primarily though such teachers will be able to teach in a regional and global context based on the quality of the preparation they will receive…
>
> In recognition of the diversities of 21st century classrooms and students, the overarching goal of the newly revised programme is to lay the groundwork for its graduates to acquire the *habits of mind* of a reflective educator, one who will be committed to accommodating for these diversities, will be responsive to student's learning, wellbeing and continued progress while attending to their own personal/professional development as life-long learners. (3)

This revision saw substantial changes in the articulation of the five practicum-based courses starting from year one through to year three and was presented as a response to the developments which were taking place in teacher education globally. The changes made it possible to show the connectedness of the practicum to the theoretical courses in all the specialist academic and professional content areas, along with the core education courses. It was also now possible to demonstrate the integrated and spiral nature of the courses which constitute the practicum component across the three years of the programme.

The conceptual framework of the practicum-based courses was hitherto loosely held together; the framework existed in fragmentary documentation and in the memory of a few members of the SOE who were associated with the programme from the early years of its existence. Knowledge of the content of the courses and how they related to each other was confined to those who delivered them, for

the most part. Specialist subject options operated in isolation from each other, coming together only in the practicum courses which all students from the different subject specialisations did in common. It was within the context of these courses that the disparities in preparation became evident, even as the common focus on other aspects of teacher preparation within options was also evident. Much of the teacher education literature bemoans the tendency of programmes to leave student teachers to establish the linkages between academic content courses, professional and core educational courses, and their student teaching courses (Feiman-Nemser 2001; Hoban 2004; Darling-Hammond and Snowden 2005). In arguing that the "key to quality teacher education is to have a coherent conceptual orientation with integrated elements", Hoban (2004) articulated that

> a conceptual framework that promotes a fragmented teacher education program does not complement the nature of teaching as a complex profession. Moreover packaging educational knowledge into independent courses presents the curriculum as a jigsaw puzzle and leaves it to students to integrate the content so that they have to construct their own 'big picture' of the education landscape. This piecemeal approach to teacher education does not embody the dynamics of a real classroom. Conversely an acceptance of the complex nature of teaching necessitates a more integrated approach to the design of teacher education programs beyond a mechanistic training model.
>
> . . . A view of the nature of teaching as a complex profession implies that a conceptual framework needs to be devised that focuses on the links among the elements and embodies the dynamics of real classrooms. (123–24)

A conceptual framework as suggested by Hoban (2004), and described as "the 'cornerstone' of a coherent program" (Howey 1990, cited in Feiman-Nemser 2001, 1023), provided the means by which the significant components or categories of knowledge offered in the programme could be identified and their relationship to the practicum explicitly shown. The framework also shows the points at which theoretical knowledge from courses is integrated with practical knowledge to provide opportunities for the practice and demonstration of teaching knowledge and skills among peers through in-house microteaching exercises. In addition, based on recommendations by reviewers from the Cave Hill and St. Augustine campuses of The UWI, specific attempts were made to show how field experiences are integrated in successive phases of the programme over the three years with increasing range and complexity to provide authentic learning and assessment opportunities. Both in-house and school-based clinical experiences are significant

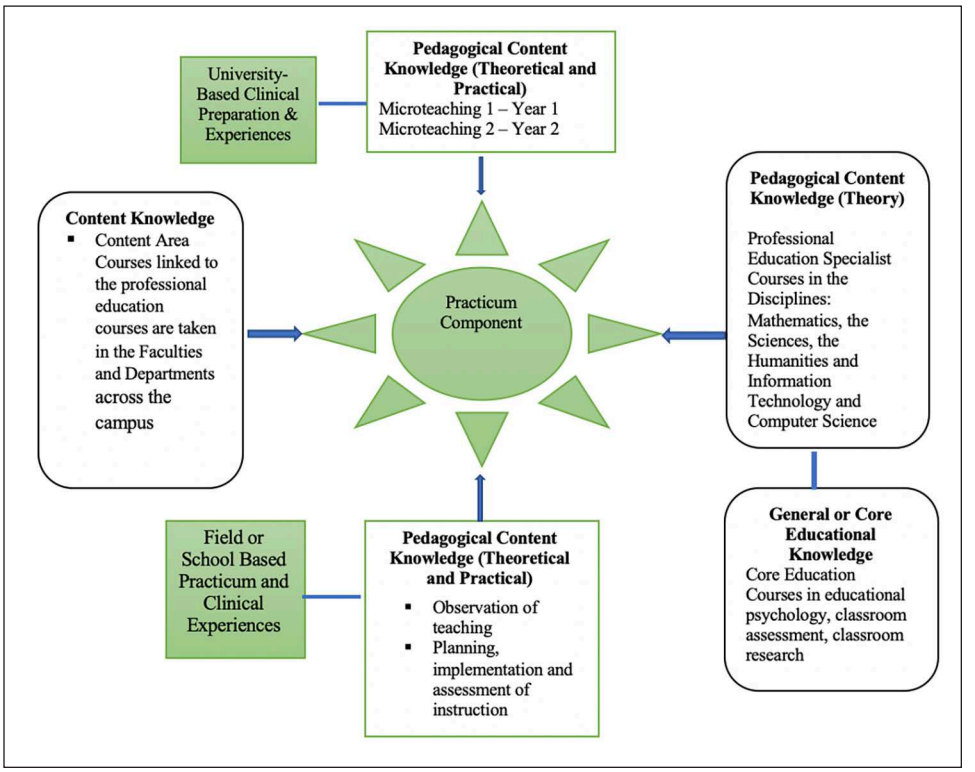

Figure 1a. Conceptual framework showing the different categories of knowledge – the knowledge base for teaching – around which the BEd programme is organised

points at which learning about teaching and teaching competencies are assessed.

A condensed version of the conceptual framework is presented in figure 1a to show the structure of the practicum and how it links with other elements of the overall programme, representing key aspects of the knowledge base for teaching as proposed by Lee Shulman in 1985 (Shulman [1987] 2004).

The categories of knowledge shown, represent what teachers should know and be able to do after pursuing a course of study in a teacher education programme with the understanding that these categories of knowledge will enlarge with practice over their career cycle. The figure illustrates that courses from all components of the programme contribute to the knowledge for teaching which is essential for practice. Figure 1b represents the structure of the practicum over the duration of the programme. It shows the three main components of the practicum, the horizontal and vertical organisation of the learning experiences prospective teachers acquire, as well as the expected learning outcomes for each main element of the practicum preparation.

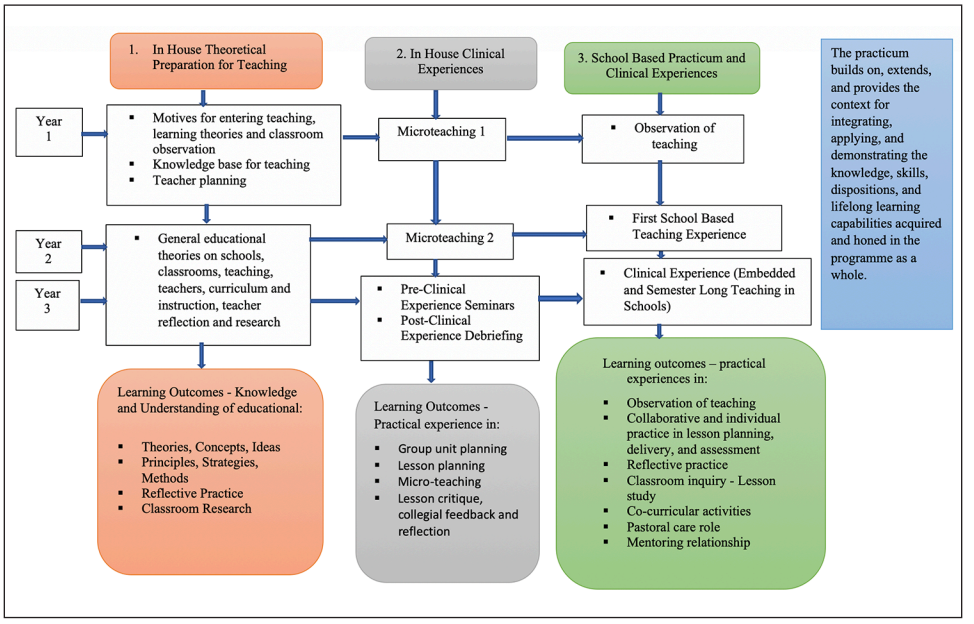

Figure 1b. Structural framework of The UWI School of Education (Mona) teacher education practicum (BEd 90 credits)

Figure 2 shows the sequence of the five practicum-based courses over the three years.

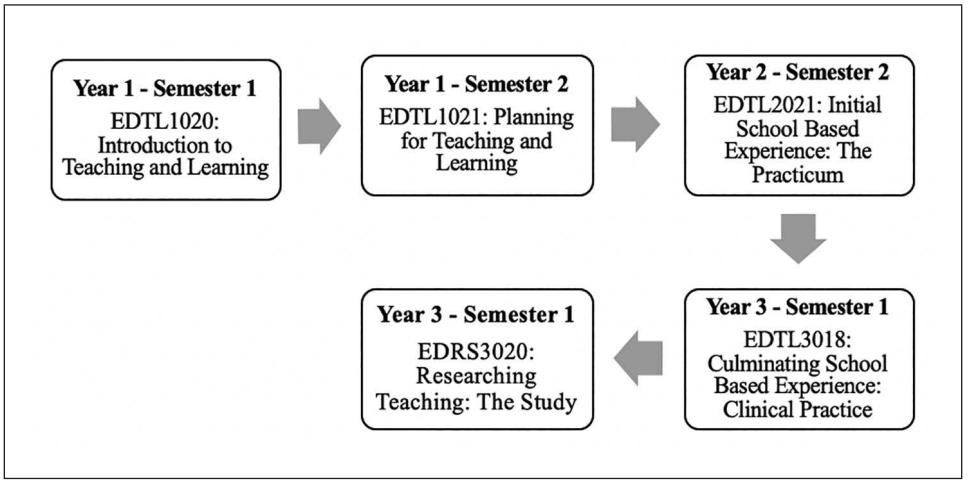

Figure 2. The Practice of Education courses in the School of Education three-year degree programme

Table 1 summarises the content and assessment details of the five practicum-based courses while figure 3 outlines the teaching models which underpin the two school-based practicum courses – EDTL2021 and EDTL3018, done in years 2 and 3, respectively. It was EDTL2021, offered in Semester 2 of each academic year, that was derailed as a result of COVID-19 and for which alternative assessments were offered.

Table 1. Summary of the content and assessment components of the five practicum courses in the School of Education's three years' degree programme

Courses	University Based Component	School Based Component	Assessment
EDTL1020: Introduction to Teaching and Learning	Student teachers examine what is teaching, motives for entry, the sources of teachers' beliefs, theories of learning and the role of observation in learning to teach.	Classroom Observation over a two-week period	Classroom Observation Report and portfolio of entries linked to specific content of the course
EDTL1021: Planning for Teaching and Learning	Students are introduced to the core work of teaching – planning for students' learning. This is prefaced by an examination of the knowledge base for teaching and a consideration of the essential knowledge needed to carry out this core teaching function.	No School-Based Component	Teacher Portfolio Microteaching Exercise In-Course Test
EDTL2021: Initial School Based Experience: The Practicum	In the first six weeks of the semester, students examine schools as social/learning organization which includes school culture and climate, curriculum, and administrative structures. They review the instructional planning process and some key teaching roles such as teachers as instructional leaders and classroom managers.	Six weeks of teaching in placement schools. This includes classroom observation, co-planning, and co-teaching with the classroom teacher then peer teaching (two members of the cohort team teach)	Teacher Portfolio Classroom Teaching
EDTL3018: Culminating School Based Experience: Clinical Practice	Prior to the beginning of the school-based clinical experience, students are engaged in a series of seminars and workshops over a two- week period. These reinforce and extend previous learning in topics such as reflective practice, planning and classroom observation.	Ten weeks of teaching in placement schools	Teacher Portfolio Classroom Teaching
EDRS3020: Researching Teaching: The Study	This is a capstone research paper based on a teaching/learning research informed by research and follow up lessons done during the teaching period.	Linked to EDTL3018. Data for the Research Study are collected during the clinical practice period.	Research Study linked to the Practicum

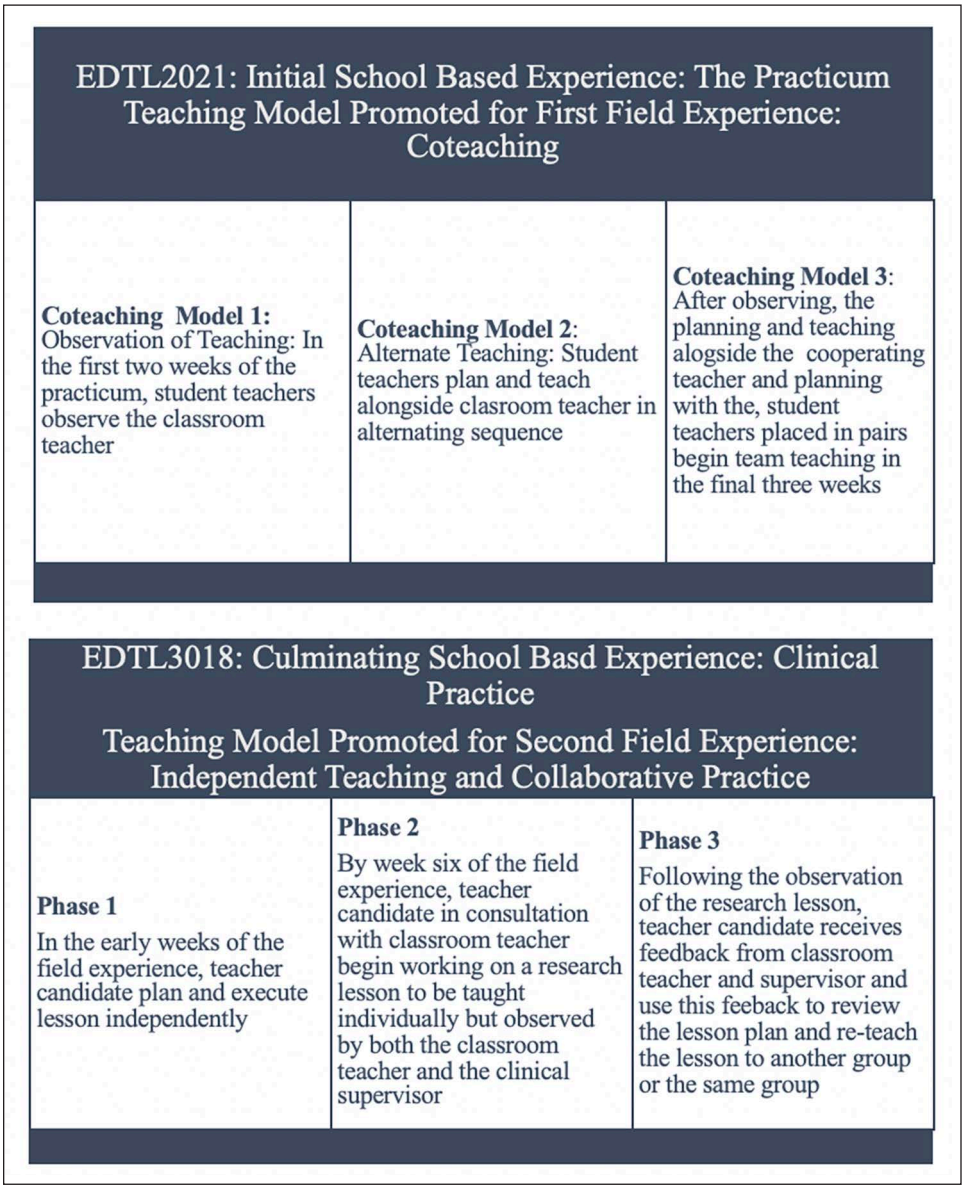

Figure 3. Teaching models used in the two school-based experience courses in the BEd Programme, School of Education, Mona

From the 'Conventional' to the 'Novel': COVID-19 and the Shift to Remote Teaching and Assessment

After three years of working with the revised practicum component of our initial teacher education undergraduate programme, the task of refining and reflecting on the changes is still ongoing and is characteristically fluid and emergent. Although some of the challenges which existed prior to the revision of the practicum, such as the placement of student teachers remain, the most insidious of the problems such as timetabling have been reduced considerably. The increased practicum hours, resulting from the revision, have led to the inclusion of non-instructional, teaching-related activities in the total number of credit hours to be satisfied by each student teacher. The COVID-19 pandemic, for all its catastrophic effects and its vice-like grip on every human endeavour, provided an opportunity to revisit, reflect on, and reconsider the assessment of the practicum component of the teacher education programme which, up to March 2020, was heavily dependent on the assessment of teaching in the clinical face-to-face setting of schools.

In the second week of March 2020 of what should have been the formal start of the practicum teaching in schools, the Jamaican government announced that the country had recorded its first known case of COVID-19 which the World Health Organization (WHO) had declared a pandemic. By the end of the week, the government ordered the closure of all schools (OPM Communications 2020). Similarly, The UWI announced the cessation of classes beginning Friday, March 13, 2020. In response to the closure of the university and acting in my capacity as the Practicum Coordinator for the School of Education, an email message was sent to the Option Coordinators to inform them that the students had been withdrawn from the practicum as of March 16, 2020. The coordinators of subject options were informed that, "We will be recalling our students from the practicum as of Monday March 16, 2020 until further notice. In the meantime, we will be considering how to address this in the best possible way. Please watch out for the update" (Email communication).

The Search for an Alternative to the Conventional Face-to-Face Assessment

In the immediate aftermath of the closure of the university, plans got underway to revise and make alternative arrangements for the assessment of courses which

could not be assessed in the traditional face-to-face examinations. In the case of field-based programmes, such as teacher education, student teachers could not be assessed in the conventional face-to-face setting of their placement schools. The one-month closure of the university was therefore used to reconfigure courses, rework assignments, and retool for remote delivery. Towards the end of the first week of the cessation of classes, a request was made through the office of the Dean of the Faculty of Humanities and Education (FHE) for information on the adjustments to be made by the SOE in its research and practicum courses.

The formal effort to arrive at an alternative to the school-based practicum began when the Director of the School of Education requested "a summary of the steps we have taken/will take to address how we plan to help students to complete their programme with minimum negative effect" (Email correspondence to academic staff, March 19, 2020). The first two suggestions for the alternative assessment of the practicum failed to meet the approval of the Board for Undergraduate Studies (BUS). The first was a suggestion to postpone the Year 2 practicum to the new 2020/2021 academic year and for it to be done immediately before the final year practicum. The second suggestion was to allow for student teachers to engage in online teaching with cooperating teachers in their placement schools. Anecdotal information shared by students and news emanating from the electronic media made it clear that the online teaching option was not feasible at the time. It was in light of these two failed attempts to arrive at a suitable alternative to the assessment of the practicum, that the third and final alternative was conceptualised.

In retrospect, the search for another alternative was the best course of action to pursue. Not only were students and staff affected by the anxiety and sense of uncertainty that prevailed because of COVID-19 but students were also concerned about being assessed in a manner which did not align with their face-to-face preparation. Further, the challenges that were being reported about online teaching in the print and electronic media, as well as through various social media platforms, added greater unease. The single most pressing concern was to find an alternative strategy which would assess the knowledge, skills, and understanding targeted in the first practicum experience.

This practicum is organised around the co-teaching model which "occurs when two or more professionals jointly deliver substantive instruction to a diverse, blended group of students in a single physical space" (Friend and Cook 2007 cited in Conderman, Bresnahan and Pedersen 2009, 2). There are several co-teaching models with team teaching regarded as "the ultimate goal of coteaching"

(Conderman et al. 2009, 30). Team teaching promotes shared responsibilities for instructional planning, lesson delivery and management, and other aspects of the teaching role. This model is highly dependent on a close working relationship with the host teacher. One of the purposes of the co-teaching model, therefore, is that it orients prospective teachers towards collaborative practice.

Microteaching and Demonstration Teaching

The conventional method of assessing the year 2 practicum was shelved in the wake of the COVID-19 pandemic for an alternative assessment which was both remote and blended. The assessment which was finally administered was the third and final iteration of the alternatives suggested. The alternative assessment consisted of two pedagogical strategies which were not 'novel' to teacher education but were used in novel ways to assess the practicum component of the year 2 programme. The more familiar and more often used *microteaching* is a key component of most teacher education programmes and is used in the SOE's programmes to provide student teachers with the opportunity to practise specific teaching skills among their peers. Microteaching was introduced into teacher education by educators at Stanford University in 1963 and was described then as "a scaled down teaching encounter" in the sense that the "complexities of the normal teaching encounter have been reduced and the level of feedback to the teacher has been greatly increased" (Allen and Eve 1968, 181).

Less popularly used throughout our current teacher education programme is *demonstration teaching*. Demonstration teaching is a direct instructional method which allows the teacher to communicate information directly to students in a sequential manner, to explain ideas, to illustrate steps in a process or to demonstrate an action or skill. As Moore (2005) explains

> The demonstration is the method by which the teacher or another designated individual stands before the class, shows something, and tells what is happening or what has happened, or asks students to discuss what has happened. . . .[It] is a process of teaching by means of using materials and displays to make information accessible to students .(259)

In showing its versatility as an instructional method, Moore further stated that "The demonstration can be successful in many subject fields" and may be carried out ". . . by the teacher, a student, by film or videotape, by Internet, or even by a sequence of pictures" (259). A key feature of demonstration, as Lang

and Evans (2006) outlined, is that it "normally involves both a visual part and a spoken explanation" (328). It also makes use of observation on the part of students, which is a well-established and research-validated medium through which learning takes place. In addition, demonstration serves some useful instructional purposes. Thus

> Demonstrations can stimulate interest and provide the advantage of having students use several senses. When demonstrations are done well, ideas and concepts are presented clearly. The result should be increased student attentiveness, learning, and performance … Demonstration can be used to enhance aspects of every school subject. (Lang and Evans 2006, 328)

In selecting microteaching and demonstration teaching as assessment tools for the school-based practicum, we not only engaged student teachers in two conventional practices within teacher education but also incorporated these pedagogical tools as assessment tools in a more reflective and rigorous way than usually done. The selection of these two pedagogical strategies as assessment alternatives for the practicum amounted to a re-discovery of well-established strategies which were not put to their best uses. When re-purposed, these strategies provided the solution to a problem of practice for which an acceptable alternative was required.

Irrespective of the usefulness of these two strategies in fulfilling the immediate purpose of finding an alternative assessment, the work towards the alternative bore in mind their suitability for replacing the conventional assessment, and how far substitute activities could be found which articulated as closely as possible with the established assessment criteria. The main limitation in the creation of the alternative assessment was the lack of opportunities for interacting face-to-face with students. This limitation is especially noticeable in the assessment of classroom organisation and management skills. This, however, was replaced by an activity which required student teachers to critique a video presentation on classroom management which featured a student teacher seeking advice from educational experts on how to deal with recurring classroom management issues ahead of an assessment visit by her supervisor. The assessment of their ability to relate theoretical understandings of schools as organisations to their practicum context was eliminated and represented, but one element from among the four domains of knowledge – specifically, the teacher professionalism domain – could not be assessed in the conventional sense. Table 2 highlights the performance criteria which are used for the assessment of the face-to-face practicum and the criteria which were just as applicable to the remote and blended alternative.

Table 2. Applicability of the performance criteria for the face-to-face practicum assessment to the remote and blended alternative assessment inspired by COVID-19

Performance Criteria for face-to-face assessment	Applicability to Alternative Assessment	Explanations
1. Instructional planning document • preparation for teaching • overall structure of planning documents • provisions for student learning • student assessment	✓	The planning documents remains the same whether the lesson will be implemented or not. Instructional planning provides information on how well student teachers understand the planning process and gives insight into their understanding of the content of the unit and the selection of appropriate strategies and methods for lesson delivery and assessment of students' learning.
2. Classroom teaching skills • verbal and non-verbal communication • questioning skills • other key teaching skills • pedagogical strategies • giving feedback • set induction and closure	✓	Teaching skills targeted in the first practicum represents the basic and key teaching skills. These can be effectively demonstrated through in house teaching activities such as micro peer teaching and demonstration teaching. The purpose and focus of these in-house pedagogical strategies must be pre planned.
3. Classroom organisation and management • learning environment • clasroom organisation • classroom rules and procedures • management of students' behaviours	✗	In-house pedagogical strategies are limited by what teaching skills can be adequately demonstrated outside the context of real classroom. Hence this component of the face-to-face practicum though not replicable outside the classroom context was replaced by an activity based on the critique of a video presentation depicting a student teacher who sought advice from educational experts on classroom management issues.
4. Teacher knowledge and professionalism • pedagogical content knowledge • reflection on teaching • evidence of professionalism • awareness of practicum context • knowledge of the moral and ethical dimension of teaching • professional dress and conduct	✓ ✓ ✗ ✓ ✓	This component of the practicum assessment is honed both through theoretical preparation, in-house activities and classroom practice. All elements in this domain except the practicum context were applicable to the alternative assessment. The practicum school context – organisational, administrative, and curriculum structures as well as school culture and climate – though examined in the course are features of school contexts that students are usually required to describe in relation to the theoretical knowledge on schools as social organisations. In their portfolio assignment, the entry relating to practicum school context was revised to former high school context.

The alternative assessment satisfied three of the four main areas or domains of teaching competencies generally assessed in the face-to-face practicum. As outlined above, there was one element of the teacher professional knowledge and professionalism domain – awareness of practicum context – that could not be assessed. For the most part, therefore, the alternative assessment satisfied the need to produce an assessment that was comparable to the approved assessment format. The difference in assessment context (in-house rather than in schools), provided an avenue to combine the strength and versatility of blended methods and learning experiences in a way not previously tapped or considered in the conventional face-to-face practicum assessment. This was achieved through the use of the two pedagogical strategies noted earlier. The microteaching exercises were conducted remotely and synchronously using BlackBoard Collaborate (BBC), hosted on the university's learning management system, OurVLE, or via the Zoom web-conferencing platform. The demonstration teaching constituted the asynchronous component of the assessment as student teachers planned and videotaped a lesson of approximately thirty minutes in duration to demonstrate a skill or explain a concept related to a topic extracted from their unit plan.

Both the microteaching and demonstration teaching as instructional and assessment strategies provide opportunities for addressing the development of content knowledge, knowledge of how students learn, and knowledge of how to select and use the most appropriate pedagogies, resources, and technological tools and apply these to either face-to-face or online instruction. Microteaching and demonstration teaching are amenable to a blended approach to the assessment of prospective teachers' pedagogical knowledge and skills and can therefore be used to diversify the in-house or campus-based learning-to-teach and assessment opportunities for student teachers. The field or school-based assessment could build on the areas assessed in-house while being more focused on those aspects of instruction and the job of being a teacher which can only be assessed in the physical or virtual online classrooms and schools.

Lessons from the SOE's COVID-19 Inspired Practicum Assessment

Using microteaching and demonstration lessons did not only lead to a revisit of the purposes of these two pedagogical strategies but also provided an opportunity to examine their potential for use as assessment tools and to enhance their use

through digital technologies. They present several possibilities for enlarging the experiences provided to student teachers to gain practice in refining and extending their pedagogical content knowledge and for thinking about teaching in a more holistic way in an environment that is safe and designed to provide multiple opportunities to plan, reflect on, and revisit their teaching. Microteaching provides the opportunity for student teachers to be guided and supported as they enact the pedagogical reasoning cycle (Shulman [1987] 2004), in a deliberate and focused way. This will provide relevant practice in researching, understanding, and transforming content to match with the most appropriate strategies for teaching, while helping them to develop their reflective capacities.

Video-recorded demonstration teaching complements and extends the instructional skills and knowledge developed through microteaching. In addition, it can be structured to provide practice in the design of age-appropriate lessons that will consider students' expected prior knowledge and common misconceptions in the subject. The skills which are best honed through the orchestration of a demonstration lesson include explaining, questioning (with emphasis on wait time), illustrating, and showing – in relation to the use of visuals as well as verbal and non-verbal communication. Through demonstration teaching, student teachers learn how to plan for lessons, thereby promoting active learning which is "critical to student engagement" (Barkley 2010, 577).

The school-based practicum – whether online or in-person – can be better focused on other teaching competencies such as classroom management and organisation and lesson management skills, that are best developed and sharpened within the context of actual classrooms. At the same time, the knowledge and pedagogical skills learnt within the context of the microteaching and demonstration teaching can be tested and enriched in the teaching of students who are not their peers and require the planning and implementation of lessons which are age appropriate. The videotaped demonstration lessons will also function as pre-packaged instruction for students to engage in learning outside the formal classroom setting, as part of a flipped classroom arrangement which also provides for the employment of asynchronous methods and learning experiences.

The lessons learnt from the search for, and implementation of an alternative assessment to the initial school-based practicum were many. Two, however, are of specific relevance to this paper. The first and most significant of the many lessons is the realisation that as teacher educators we are likely to neglect or take for granted long established methods and techniques for newer and ostensibly

more sophisticated developments. The rationale for the development of microteaching as a pedagogical strategy and its specific purpose has become shrouded in the repeated reference to its shortcomings, linked to the teaching of peers rather than school-aged students. This was not a part of its initial purpose. The centrality of microteaching as a pedagogical strategy in our programme, however, ensures a general level of familiarity with its origin, rationale, and purpose. As the comments below of an Option Coordinator in the Department suggest, the decision to use microteaching as an assessment tool was an acceptable challenge. On the other hand, the demonstration teaching, as noted earlier in this paper, is far less commonly used and created an appropriate balance between the familiar and the strange

> I thought that using the microteaching and demonstration teaching were good alternative assessment activities to the face-to-face practicum assessment. The microteaching was useful in that it was more focused, for example on questioning. This helped to clarify the benefits of microteaching for many of us as supervisors. Before, when we did microteaching there was always the concern that it was not a real class and the student teachers would not be as prepared to teach a concept while managing the real classroom behaviour issues.
>
> Demonstration teaching was new to us as practicum supervisors and to the students . . . I was excited for the students to venture into this form of teaching as I think it is an ideal method for training teachers to teach using explanations to teach concepts . . . (Option Coordinator 1: Personal Communication via WhatsApp 2 Nov. 2020)

The second lesson learnt was a lesson missed while it was unfolding. The act of colleagueship that was demonstrated in searching for an appropriate alternative was not seen as such until there was some purposeful reflection on the activities we engaged in and which were stimulated by the writing of this paper. The task felt onerous because of the circumstances under which we were searching for solutions and the timeframe within which our responses were required. There were moments of quiet rage but then came the moment when I and my colleagues knew that we had arrived at a workable and pleasing alternative. Another Option Coordinator described the experience as interesting as she was part of a history-making moment in experiencing 'several firsts' caused by the pandemic and resulting in a collaborative decision-making exercise that was occasioned by a problem of practice for which we worked as a team to find an alternative to the practicum assessment. At the same time, she described her efforts to allay the

anxieties of her students about completing the practicum specifically, and the implications that would have for completing the programme generally. Of the alternative assessment that was finally decided on she wrote:

> I was satisfied with the content of the final alternative assessments. It was a good compromise based on the situation that we were in . . . I am proud of the final output and that I was a part of this historic undertaking. I like challenges – educational challenges – these are the opportunities to see and do things differently – in ways not previously thought of . . . Although the COVID-19 pandemic has had negative impact in many ways, there were positive outcomes at least for the practicum because it allowed us to reconceptualise practice. It was a good learning experience for me as I had to come to grips myself with the new knowledge/skills (e.g. scripting, demonstration lesson). Not only did I have to process this information, but I had to know/understand it well enough to be able to explain it to the practicum supervisor and students.
>
> An unexpected outcome of the experience for me, was the feeling of being a part of a team as we grappled to find solutions. As we engaged in reviewing the various draft [course assessment] documents there was a distinctive collaborative aspect that I had never experienced before in relation to the practicum. (Option Coordinator 2: Email communication 3 Nov. 2020)

These were our lessons and our experiences. How different were these from those of teacher educators in other contexts? While it is certain that closure of educational institutions at all levels and the adoption of remote emergency teaching were common global responses, the adjustments made to courses and assessments were varied. Our face-to-face practicum was replaced, and an alternative found. In a real sense, the final practicum which is more extensive and embedded would have presented far more challenges. When examined against the responses from the teacher education institutions represented in this paper, The UWI Mona SOE's solution to the closure of schools and the postponement of in-person practice teaching appears to be a more tolerable outcome. Early writings in response to COVID-19 indicate that teacher educators in their different programmes implemented various curricular and pedagogical adaptations and intensified their concerns over students' social and emotional well-being (Hadar, Alpert and Ariav 2020; Leacock and Warrican 2020).

In all instances examined, remote emergency teaching using a range of online platforms was the common response as face-to-face instruction was moved online with a rapidity hitherto unseen. This uniformity in transferring in-person teaching to online modalities was not replicated with respect to practice teaching. This

element of the programmes was continued online as in the case of one institution in Portugal (Assuncão Flores and Gago 2020), cancelled in one college in Israel (Hadar, Alpert, and Ariav 2020) and postponed in the case of the final practicum for students in the BEd and Post Graduate Diploma in Education (PGDip Ed) programme at The UWI St. Augustine Campus (Kalloo, Mitchell and Kamal-odeen). In the English context and specifically based on the experiences of four university providers, student teachers were unable to continue their practicum and had lost between eight to nine weeks of teaching practice when schools and universities closed in the third week of March. In this context, the Department for Education (DfE) introduced the "notion of the trajectory to qualification" which, in effect, allowed teacher education institutions to "make judgements on trainees based on assessments already completed and each trainee's current trajectory of progress towards meeting the Teacher's Standards (DfE, 2020 cited in La Velle, Newman, Montgomery and Hyatt, 2020, 6–7).

Along with curricular adaptation, the shelving of some content and the focus on emotional well-being, it was recognised that all student teachers, irrespective of their context, had suffered some learning loss as a result of the pandemic. This was due to the dislocation caused by the closures, as well as the inequities and disparities in relation to access to resources needed to engage meaningfully in remote teaching and learning. In reference to their context, La Velle et al. (2020) acknowledged in relation to the curtailment of practice teaching that ". . . these new teachers will need extra support as they start in their first teaching post" (7), a likelihood similarly remarked on by Darling-Hammond and Hyler (2020) who suggested that veteran teachers could provide mentoring and support for colleagues, including new teachers, in view of the fact that "New teachers whose student teaching was altered by COVID-19 in the spring of 2020 may need additional support as they begin their careers . . ." (5). With respect to the need for a renewed emphasis on social emotional learning, the pandemic made it clear that teachers should know ". . . how to enable social emotional learning and how to engage in trauma-informed and healing-informed practice" (Darling-Hammond et al. 2020, 4).

Conclusion

The process of seeking alternatives to the conventional face-to-face practicum assessment was taxing, onerous and, at times, depressing, isolating and vexing.

It was also intellectually challenging and stimulating and inevitably collegial. It created along the way a feeling of disequilibrium as we dug deep into our teacher educator selves to solve a problem of practice unlike any we had encountered before. The activities we engaged in to rework the practicum assessment took approximately seven weeks to be finalised. The alternative assessment which went through three main iterations was released to students on 27 April 2020, by which time teaching had resumed well over one week.

This meant that throughout the entire period of the COVID-19 induced closure of schools, the cessation of teaching did not approximate to a cessation of work; in fact that continued, ironically, at a more intense pace and under trying and fretful circumstances. In the end, it turned our conventional approach to practicum assessment on its head. In doing so, we found a COVID-19 inspired response to our assessment of the school-based practicum – a response that we will reflect on, refine, and incorporate into our assessment processes to provide a wider range of opportunities for students to improve and enhance their pedagogical content knowledge over time during their teacher education programme and beyond.

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POEM

Love in the Time of COVID-19

PAULETTE A. RAMSAY

masks
my mask
their masks
our masks
multi-coloured
red
pink
black, green and gold

hug less hugs
hollow eyes
squashed eyes
half faces
half a face

idle make up bags
complain of neglect
lips dreaming of lipstick

love in the time of COVID-19
food,
their food
our food
more food

love in the time of COVID-19
a soundless movie
a soundless whimper . . .

Book Reviews

Show Us as We Are, by Rachel Moseley-Wood. Kingston, Jamaica: The University of the West Indies Press, 2019. 268 pages

REVIEWED BY JEAN ANTOINE-DUNNE

ONE OF THE BIGGEST ISSUES FACING CARIBBEAN FILM studies is the dearth of good critical analysis. There is also a serious lack of genuine research. Rachel Moseley-Wood's book is well researched and provides a compelling account of the context of present-day Jamaican film and the theoretical avenues through which that filmmaking and production might be explored.

The work is divided into easily identifiable chapters which are segments of the history of Jamaican encounters with its representation on screen. The analysis begins with the ideological intentions of the Colonial Film Unit and later the Jamaican Film Unit and two Independence documentaries. Jamaican filmmaking is placed within the context of postcolonial and nationalist ideals and the failures of successive governments to live up to that promise. Jamaicans' insistence on the right to be seen as they are, is traced to the very first decades of cinema. The gap between ideal and reality and the chasm that exists between what Moseley-Wood calls two Jamaicas has in part led to this cinema's focus on the poor and the marginalised.

As a teacher of film and as a person whose concern with the arts has always been political and ideological, I find that this book has a particular resonance for me. It notes how cinema shapes the way Jamaica is seen and the aesthetic strategies that filmmakers use to complicate that perception. There is a clear, politically engaged analysis of how violence, race and poverty are constituted – and indeed constructed – out of and along class and power lines, and how these

films negotiate these structures and do so within the context of a need to sell films. Filmmaking, as Moseley-Wood points out, has to take account of economics and marketing, and that often if not always, means looking at the world outside the Caribbean for an audience.

Having said this, it is interesting that one of the first issues discussed is not foreign accolades or acceptance, but the impact of films on Jamaican audiences and their desire and their demand to see themselves. This concern with seeing leads to a second question: What is the prism through which the filmmaker, no matter what his or her stated intentions are, sees?

The work relentlessly queries any single perception of Jamaican society and instead views the representation of the ordinary Black Jamaican – who is in the main the subject of Jamaican filmmaking – through multifaceted lens. This means taking into account what has happened, and what is happening, and marking the infiltration of the outside into what society insists, according to the author, are the clearly defined demarcations of ghetto life and living.

The questions posed here, and the political contestations and power struggles outlined in relation to the post-independence period are relevant to many other Caribbean nations, as parties seek to consolidate lines of support and mark their territory. They certainly speak to the creation and continued existence of ghettoes in Trinidad and Jamaica. The creation of a downtown space, this work suggests, is managed and maintained despite the affirmation of a myth of unity that "All ah we is one". From the very first chapter this work argues that hegemonic interests work to silence dissent and to uphold power structures. The promise of independence is never fulfilled.

Moseley-Wood supplies a theoretical basis for examining meanings that attach to place and in support of an idea that there are no fixed ways of looking. She examines how "third cinema", to quote a term used by the late Paul Willemen, may be conceptualised. She asks what is the project of Caribbean filmmaking, and **why** the popularity of films such as *The Harder They Come*, which, despite its imperfections, retains its fascination and freshness. Moseley-Wood proposes that its power derives from the fact that it is a resistance film and it also uses Jamaican folk heroes, such as Rhygin (Ivan). Like Robin Hood, Ivan speaks to those who yearn for visibility and empowerment. In a world of engineered powerlessness, violence and badness become badges of fame and the means to the construction of identity.

The Harder They Come is read as a filmmaker's close analysis of those condi-

tions that continuously maintain inequality in Jamaica and that dehumanise the black individual. It uses montage techniques to effect that pointed interrogation – and I can hear Chappy St Juste in the overtones talking about the film's use of Soviet montage. The film creatively rewrites the story of Rhygin and media representations of this bandit, and foregrounds cinema's creative capacity to reconstruct segments of the real to change audience perspective. Ivan's fantasy bears a relation to this transforming magic of the screen and also foregrounds the theft of his creativity and his resistance to this thievery. His embrace of the role of badman and outlaw becomes inextricably connected to his imaginative output, both in terms of his song and of his identity. Moseley-Wood uses the trope of transformation: the transformation by writers Perry Henzell and Trevor Rhone of an original cultural text, the capacity for transformation of the hero, Ivan: his constant renewing of self; and the transformative function of the film on the bodies of ensuing audiences.

The assemblage of an imagined identity is also interrogated through *Smile Orange*. Here the author introduces the idea of the black man, in the character of Ringo, as "cocks man" or sexual object. However, while citing Fanon, Moseley-Wood complicates the ways in which this figure is explored by Trevor Rhone, while also admitting that the film is not of the same standard as the play. Ringo is both Anancy the trickster of folklore and internalised sexual object. He is an ambivalent figure whose success or survival strategy is never straightforward. According to Moseley-Wood the deceptions of the trickster figure suggest Rhone's definition of "the postcolonial moment as one in which the pressing demands of economic survival in the developing nation support the retention of the politics of the plantation and maintain a form of psychological bondage." And, "the declaration of a thief and liar as hero signals the moral and spiritual decay of the community" (81). And again, "Rhone leaves the viewer trapped in an Anancy web of discomfort and amusement, complicity and critique" (82). All are implicated here, including both the tourist and the Jamaican.

For some, the focus of Jamaican cinema may be seen as a perpetuation of stereotypes of black Jamaicans. The chapter on *Rockers* focuses on the positive portrayal of Rastafari and also enables an interrogation of questions central to Caribbean film criticism, in particular that vexed question: What exactly is a Caribbean film? Does the director have to be a Caribbean person? Moseley-Wood's analysis of *Rockers* muddles that question for good. Given that cinema and filmmaking as a whole needs capital and there is little funding within our Caribbean states,

should we demand that the director or the producer be of Caribbean lineage? Is the definition Caribbean film perhaps something more? A use of language for example? Language in its fullest sense as song and sound as Kamau Brathwaite would say, is key to the analysis. *Rockers* is a tribute to reggae. Dread talk is an 'oppositional' language and connotes 'resistance to perceived oppression' (91). There is also a strategy that Moseley-Wood calls 'translation' in that the actors were given free rein to 'translate' from an original standard English script, thereby opening up areas of both creativity and agency. This question of language in the making of a Jamaican film and in the film industry as a whole finds its way into the epilogue where Moseley-Wood asks whether the recent call for standard English films will mean the demise of films in Jamaican Creole. The question of language is a serious and complicated one, if we want to be seen as we are.

There is one chapter that I eagerly anticipated if only because it deals with a film that arouses very complex reactions depending on the gender, the class, and even the race of the viewer. Moseley-Wood uses this complexity as the basis for her analysis and extends her interrogation to the use of film techniques and film equipment. The eye of the camera, its angle and its focus can, in *Dance Hall Queen*, she says, serve to entice and act as the purveyor of male desire as we see in Hollywood cinema, and that camera and its positioning and privileging can equally become a vehicle for the liberation of woman. In this analysis Moseley-Wood extends the theory of scopophilia made famous by Laura Mulvey. In *Dance Hall Queen*, women also gaze. The male gaze may equally be used to negotiate patriarchy and may become a route to empowerment. The use of montage enables the complexity of this negotiation by both filmmaker and black female to unfold, leaving the viewer with no stable point of view.

The chapter on *Dance Hall Queen* is followed very fittingly by a discourse on the differences between the real and the reel and the ways in which the reel often comes to replace the real. Moseley-Wood is concerned here as she says with the 'politics of definition' and how they operate within specific films (150). More than anywhere else, here in her discussion of the use of realism in *Ghett'a Life* and *Third World Cop*, Moseley-Wood's voice sounds a political note of activism. Both films are evoked as works that shore up a singular view of Jamaican life that avoids its multiple realities. Both films in their realist pursuit of narrative coherence make invisible those forces that work to retain marginalisation and poverty. The capacity of the filmmaker to understand how audiences react to specific conventions and the reliance on well-known tropes turn illusion into truth. Violence is cordoned

off and contained within the confines of ghetto reality with no responsibility attributed elsewhere, by the very construction and focus of these films.

If the 'white and middle class' (148) Chris Browne may be read as upholding a fantasy of political and power structures despite the appearance of authenticity, Storm Saulter's film *Better Mus Come* achieves an adherence to truth through his imaginative animation of the past. This film is read as an experiment that takes a real event and historical narratives and opens them up to scrutiny through film's ability to combine reality and fantasy and to recreate space and time. Through these specific filmic vehicles, the audience is made to see the intricate connections between power, politics, poverty and violence. Moseley-Wood sees Saulter's film as an extraordinary achievement, that through reinvention and strategic filmic techniques such as the use of dream sequences and slow motion allows a visceral experience of a moment in history and its bearing on contemporary identity formation and community. His strategies refuse any one account of past events and open them up to scrutiny.

The chapters of this book offer clear and vigorous analyses of particular films and ask whether these films see Jamaican reality as it really is. Is the early claim to Jamaican unity an ongoing falsehood? *Children of Babylon*, by Lennie Little-White, for example, explores this potential for unity and seeks ostensibly to move away from stereotypical images of the ghetto life. However, Moseley-Wood points to the film's failure to give any voice or autonomy to the poor and also draws attention to its characterisation of the Rastafari as abusive and controlling.

Many filmmakers in the uneven world of Caribbean filmmaking have tried to show us as we are. But given the lack of funding, the need to sell to the very audience that these films may wish to criticise, and the very structures of ideological control, the nature of that representation is nuanced and complex. So too must be its critical commentary. What emerges from this reading of Jamaican film is a richly textured analysis that is of interest to all who love film and Jamaican and Caribbean culture. It is also essential reading for those who wish to challenge the status quo.

What Do Jamaican Children Speak? A Language Resource, by Michèle M. Kennedy. Kingston, Jamaica: The University of the West Indies Press, 2016. 272 pages

REVIEWED BY WARRICK LATTIBEAUDAIRE

LANGUAGE, EXPRESSED THROUGH THE ABILITY TO SPEAK AND write, has been the primary feature distinguishing humans from all other species. The spoken and written word has been so powerful in forming a people that few things can take place outside of language. The literature on language within the Caribbean and the world is in no way lacking. But because language is ever fluid and evolutionary, particularly within the Caribbean and the Jamaican space, where Creole, a language in its own merits, has developed from a confluence of languages and in relation to the English language of the colonisers, it is never surprising the various voices that have emerged seeking to capture the language dynamics at a particular time. Adding to the intellectual reservoir is Michele M Kennedy's book, *What do Jamaican Children speak? A Language Resource*. Her 248-page work targets the Caribbean region, specifically Jamaica, with its diglossic reality – the Jamaican Creole and Jamaican English – and makes an important contribution to the field by looking through the language and linguistic lens of three-year-olds, with a view to determining how language is acquired by these impressionable minds, with implications for how best adult teachers of language and linguistics can employ this knowledge in the relevant pedagogical fields. By looking at the morphology and syntax in this base target group – three-year-olds – a critical time for these young ones who will start their first year of entry into the school system, this foundation book is ideal for teachers of language and literacy, intermediate and advanced tertiary level students of linguistics and education, along with language enthusiasts like Creolists, who, if they understand and appreciate how children develop in speech are better able to implement strategies and develop best practices along these lines. For these in the field of language, literacy and linguistics, Kennedy's research makes for an engaging, incisive and revelatory read.

Kennedy's book is well researched, a work that has taken much time to plot and execute, as is expected of any solid work on speech and language acquisition

in a particular field. The book is replete with tables and a litany of examples as to how Creole works in relation to English. Showing the extent of the research are these tables that break the text, creating a welcome variant in understanding the language acquisition process. These 27 tables at different junctures in the book, again, help to underscore the depth this research has taken with interviews, language codes, inventories, and other grammatical structures and tokens of parts of speech put in tabular form.

As with many fields of discipline, there is a host of vernacular specific to language and linguistic research. These are captured on page xiii in a section called "Abbreviations Used in the Presentation of Data," which leads to CHILDES (Child Language Data Exchange System Symbols), explaining what certain symbols represent, even as the author has another portion called "Other Symbols". And if those sections are not enough, she has a final section following, called "Other Abbreviations".

The section, "Acknowledgements", should not be overlooked since any brilliant scholarly work is indebted to many other scholars, close associates and friends and family, who become as important as the academic research process itself, given the extent of the support they show. A detailed list of references spans pages 225 to 242. One may decide to browse through the pages of the index which will give an insight to words, concepts and experts in the field and where they appear through the book. There are also notes on each chapter, which can be consulted, nestled towards the end of the book starting on page 211, after the Appendixes.

Kennedy's book, big on content as it in on form, is divided into six chapters, each with various subheadings, almost reminiscent of a course in language acquisition that starts from the rudiments and takes one through the linguistic trial and errors and then to the end. Specifically, Chapter one, titled, "Laying the foundation", looks with a summative eye at the language situation in Jamaica, highlighting the unique elevated position English has maintained in relation to the often-considered subsidiary dialect, Jamaican Creole. This chapter examines, too, the methodology employed and the limitations to this piece of work, as well as the objectives the book sets out to attain and its structure. Chapter 2, "Theoretical Bases of the Study", highlights the main theories at stake in language acquisition and zeroes in on the acquisition of a first language, the acquisition of a second language, the role of input in acquisition along with code switching and minimalism. The chapter makes an important distinction between language *acquisition* which is a natural process, and *learning* which speaks to instruction given in different forms,

in essence, a sort of hidden curriculum versus a formal curriculum, both of which influence the child. Chapter 3, has as title "How Children Use and Create words". Inventories of sound in Jamaican Creole (JC) versus Jamaican English (JE), the categorial composition of the children's vocabulary, adjectival modification and word formation strategies constitute the main issues under discussion. Chapter 4, "What do Children Do with nouns", examines countable and non-countable nouns, number marking in JC and JE, how indefiniteness is expressed in both languages, along with possessive noun phrases. Chapters 4 to 6 each benefit from a formal section of concluding remarks.

Moving on from chapter 4 on naming words, chapter 5 transitions into verbs, another part of speech. There, Kennedy looks deeper into tense, aspect (or the internal make-up of a situation), revisits tense, then shows how JE and JC are weaved. Chapter 6 is the final chapter, fittingly named "Bringing it All Together". In this chapter, the author examines specific issues in the nominal and verbal domains, the relative distribution of JE and JC structures in how children use them, blurred boundaries and what she calls their "unblurring". She appropriately looks at levels of language awareness and literacy and gives her concluding remarks.

Language and identity continue to be a troubling issue for many Jamaicans. Jamaican Creole, called Jamaican or less formally and more popularly Patwa/patois is the first language of developmental contact for most Jamaicans, being the language spoken in most homes. These young and formative minds are then thrust into a basic school system where the curriculum is one based on English. These littles one end up being taught a language (the process of learning) for the most part not spoken at home (a part of the process of acquiring), creating a tortuous situation that has lived to haunt many of these islanders who go on to tertiary level and may not have adequately mastered code switching as one language interferes with the other.

What Kennedy has done, instead of presenting a treatise on a language debate, is to ask for stakeholders to push for an approach to teaching that recognises the peculiar language situation which obtains in Jamaica, with a primary focus on how Jamaican Creole and Jamaican English both work to influence the speech on a child.

While the language situation in other Caribbean island are not identical to Jamaica's, there is a Creole that has developed in other islands and has started to work with the "official" language to influence speech and language of its people. In this regard, Kennedy's book could have points of interest in not just Caribbean

English-speaking territories but even French-speaking ones such as Martinique and Guadeloupe, which have a strong French Creole heritage. There, the Creolists, Patrick Chamoiseau and Raphaël Confiant, in their vade mecum, *In Praise of Creoleness*, have long maintained that the mother tongue of Antilleans is Creole. From this narrative should not just come an antagonism between Creole and French or in our case Creole and English, but an admission of the diglossic reality of our peoples and how our little ones learn, and a subsequent push for an approach, as Kennedy has articulated, that reflects such a reality.

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